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560-1	These comments are specific to Tribal impacts and impacts to the Trinity River. Save California Salmon has Hoopa Valley, Winnemem Wintu, Karuk and Shingle Springs Band of Miwok Indians Tribal members on our board and staff that will be negatively impacted by the Delta Tunnel, many of whom live on the Delta or Sacramento or Trinity Rivers.	This information describes the structure and organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
560-2	Many of them [Hoopa Valley, Winnemem Wintu, Karuk and Shingle Springs Band of Miwok Indians Tribal members on the Save California Salmon Board] commented at the Scoping Hearings in Sacramento and Redding and felt their concerns were ignored.	Comments submitted during the scoping period in 2020 were reviewed and considered in the development of the EIR as described in Appendix 1A, July 2020 Delta Conveyance Project Scoping Summary Report and Addenda. Please also see Chapter 32, Tribal Cultural Resources, and Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Chapter 32, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources.
560-3	Please see our comments with the Natural Resources Defense Council (NRDC) regarding other significant issues.	Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Chapter 4, Response to Comments Tables. DWR has reviewed all comments and will consider all comments in its decision-making process.
560-4	On behalf of the Save California Salmon, we are writing to provide comments on the Delta Conveyance Project's ("Project") Draft Environmental Impact Report ("DEIR"). Our comments with primarily focus on Chapter 32, Tribal Cultural Resources.	This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
560-5	Save California Salmon (SCS) is an educational and policy focused nonprofit that works closely with Tribal communities to ensure their voices are being heard in educational spaces, policy decisions, and during project development.	This information describes the background of the organization or individual commenter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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560-6	There are several issues with the DEIR: The Tribal Cultural Resource Chapter did not receive its own analysis and instead was supplemented by other DEIR chapters.	The analysis contained in Chapter 32, Tribal Cultural Resources, received an independent analysis based on multiple lines of evidence, including Tribal consultation and the information contained in the Tribal Cultural Resources Identification Report (Confidential Appendix 32C). Tribal cultural resources are complex and intertwined with a multitude of other environmental resources. Text has been added to the following chapters in the Final EIR acknowledging the overlap between Chapter 32 and other resource chapters: Chapter 5, Surface Water; Chapter 6, Water Supply; Chapter 8, Groundwater; Chapter 9, Water Quality; Chapter 12, Fish and Aquatic Resources; Chapter 13, Terrestrial Biological Resources; Chapter 18, Aesthetics and Visual Resources; Chapter 19, Cultural Resources; and Chapter 23, Air Quality and Greenhouse Gases. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit. The analysis contained within Chapter 32, however, takes a holistic view of those resources that could contribute to Tribal cultural resources and includes information from various chapters to support the impact analysis. Please refer to Common Response 16, Tribal Cultural Resources, regarding the consideration of impact analyses from other chapters when analyzing impacts on Tribal cultural resources in Chapter 32.
560-7	There are several issues with the DEIR: The Inadequate Handling of Tribal Relations Exemplifying That DWR Does Not Prioritize the Protection of Tribal Cultural Resources Tribal consultations and outreach were arbitrary and ineffective.	DWR does not agree that Tribal consultation efforts were arbitrary and ineffective. See Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. The section in Chapter 32, Tribal Cultural Resources, titled Consultation and Engagement with Tribes describes DWR's good faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. DWR is committed to continued understanding and

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		incorporation of Tribal knowledge through close collaboration and engagement on the implementation of the mitigation measures as described in Chapter 32.
560-8	There are several issues with the DEIR: The Inadequate Handling of Tribal Relations Exemplifying That DWR Does Not Prioritize the Protection of Tribal Cultural Resources The Tribal Representative Meetings were inefficient and poorly circulated and should be revisited.	Please see response to comment 560-7 regarding Tribal outreach, engagement, and consultation. In addition to formal consultation with Tribal governments, DWR provided ample opportunity for input from Tribal individuals. Please refer to Chapter 32, Tribal Cultural Resources, and Chapter 35, Public Involvement, regarding the outreach activities conducted to engage California Native American Tribes and Tribal communities throughout the EIR process. Please see Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Please also refer to Common Response 2, Public Outreach Activities, regarding the Tribal representatives meetings held during the public review period for the Draft EIR.
560-9	There are several issues with the DEIR: The Inadequate Handling of Tribal Relations Exemplifying That DWR Does Not Prioritize the Protection of Tribal Cultural Resources DWR is not acting in good faith by failing to protect the Delta's Tribal Cultural Landscape or Tribal Cultural Resources and failing to understand the cultural significance of the Delta.	DWR recognizes, and the EIR acknowledges, the Delta's importance to Tribes. The section in Chapter 32, Tribal Cultural Resources, titled Sacramento–San Joaquin Delta Tribal Cultural Landscape describes the Delta Tribal Cultural Landscape, which was evaluated as a cultural (sometimes called ethnographic) landscape, which relies on the continued recognition of culturally important processes in addition to historical trends. DWR is committed to continued understanding and incorporation of Tribal knowledge through close collaboration and engagement with affiliated Tribes on the implementation of the mitigation measures as described in Chapter 32.
560-10	There are several issues with the DEIR: The DEIR does not provide adequate analysis of the alternatives and mitigation measures[.]	Please refer to Common Response 3, Alternatives Development and Description, for information regarding the reasonable range of feasible alternatives developed for the EIR, and, as described in Common Response 3, the EIR satisfies CEQA requirements and provides a reasonable range of alternatives that meet the basic project objectives. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and

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		Other Environmental Review Issues, regarding mitigation measure adequacy and overall approach to CEQA analysis.
560-11	There are several issues with the DEIR: The DEIR fails to adequately express the impacts from all alternatives by excluding proper analysis of the No Project Alternative. Despite lack of proper analysis, the No Project Alternative is the only reasonable alternative to protect Tribal cultural resources[.]	All alternatives are co-equally evaluated throughout the EIR and in Chapter 32, Tribal Cultural Resources. Please see Common Response 4, No Project Alternative Description and Analysis, regarding the CEQA requirements for describing and evaluating a No Project Alternative in an EIR and the comparisons that are made in the EIR between existing conditions, project alternatives, and the No Project Alternative. Common Response 4 describes that, as required by CEQA, the No Project Alternative includes projects and programs that could occur in the absence of the Delta Conveyance Project and the associated environmental impacts that are reasonably foreseeable results of not approving the project. DWR, as lead agency and decision maker, will carefully consider all the project alternatives, including the No Project Alternative, before making a decision on the project. Please also see Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Additionally, regarding reasonably foreseeable actions that are considered part of the No Project Alternative and the approach to describing and evaluating the No Project Alternative, which meet CEQA requirements, please refer to the section in Chapter 3, Description of the Proposed Project and Alternatives, titled No Project Alternative and Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions. The No Project Alternative includes the following types of reasonably foreseeable actions: additional water conservation programs, water recycling projects, groundwater recovery projects, desalination of seawater or brackish groundwater, surface water storage, groundwater management, or water transfers and exchanges, that may be pursued by a variety of local, state, and federal agencies.
560-12	There are several issues with the DEIR:	Please refer to response to comment 560-11 regarding the No Project Alternative.

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	The DEIR fails to adequately express the impacts from all alternatives by excluding proper analysis of the No Project Alternative. The No Project Alternative is the only reasonable alternative given the mitigation conclusions[.]	
560-13	There are several issues with the DEIR: The DEIR fails to adequately express the impacts from all alternatives by excluding proper analysis of the No Project Alternative. No analysis of Tribal Beneficial Uses despite current processes to identify and protect uses[.]	Please see response to comment 560-11 regarding the No Project Alternative. The State Water Board has developed Tribal Beneficial Uses for future incorporation into Basin Plans. Tribal Beneficial Uses and associated water quality objectives are being considered for incorporation into the Bay-Delta Water Quality Control Plan. These may be different from beneficial uses already considered in Chapter 9, Water Quality, and therefore, it is not included in Chapter 9 or Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions. Please also see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, which discusses State Water Board activities, authorities, and responsibilities and DWR's commitment to complying with future water quality objectives in the adopted water quality control plan. Language has been added to Chapter 32, Tribal Cultural Resources, to acknowledge that DWR recognizes that the Bay-Delta Water Quality Control Plan is currently in the process of being updated and that the State Water Board is considering including Tribal Beneficial Use designations.
560-14	There are several issues with the DEIR: The DEIR fails to adequately express the impacts from all alternatives by excluding proper analysis of the No Project Alternative. No cumulative impact analysis on how climate change, the Delta Tunnel and proposed Sites Reservoir will impact Tribal Cultural Resources and Beneficial Uses[.]	Please see responses to comments 560-11 and 560-13 regarding DWR's approach to evaluating the No Project Alternative and Tribal Beneficial Uses, respectively. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approach to cumulative analysis. Sites Reservoir is included on the cumulative project list in Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, and is included where appropriate in

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		the cumulative impact analysis of resources throughout the EIR. Please see Common Response 6, Climate Resilience and Adaptation, for discussion of climate change analysis in the EIR as well as future conditions related to precipitation, temperature, and salinity.
560-15	There are several issues with the DEIR: The DEIR's Analysis and Conclusions Regarding Environmental Impacts to Native Fish Fails to Use the Best Available Science and Misleads the Public and Decisionmakers as to the Likely Effects of the Project[.] Tribal Significance of Protecting Native Fish[.]	The EIR has been prepared in accordance with CEQA and adequately discloses the potential, scope, severity, and magnitude of potential impacts for the environmental resources analyzed in the EIR, including those related to native fish. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science in the preparation of the EIR. DWR understands and recognizes that certain species of native fish are key species for Tribes, and it has consulted with Tribes and considered the impacts on salmon and other native fish species habitats as a character-defining feature of the Delta as a Tribal Cultural Landscape. Please see Chapter 32, Tribal Cultural Resources, regarding DWR's consultation and engagement with Tribes on the project, the definition of Tribal cultural resources, and those resources identified as Tribal cultural resources. Please see Common Response 16, Tribal Cultural Resources, regarding DWR's consideration of individual Tribal cultural resources, as well as the documentation in the record regarding DWR's evaluation of Tribal cultural resources. Chapter 32, Impact TCR-1, considers multiple variables (described as character-defining features) as part of the Delta Tribal Cultural Landscape, including those identified in table titled Tribal Views on Delta TCL Character-Defining Features. For example, terrestrial and aquatic plant and animal species and their habitats are identified as part of both the Delta's ecosystem and character-defining features that represent heritage and cultural significance to Tribes pertaining to sustenance, traditional knowledge, ceremony, spiritual practices, and stewardship. As such, the impact analysis in Chapter 32 considers the various individual resources identified by Tribes and the values these resources contribute to the Tribal Cultural Landscape.

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		Please also refer to Chapter 12, Fish and Aquatic Resources, regarding an in-depth analysis of the project alternatives and the potential impacts on fish species, which were determined to be less than significant with mitigation.
560-16	There are several issues with the DEIR: The DEIR 'S Analysis of Impacts to The Trinity River and Related Tribes Is Inadequate.	Please refer to the sections in Chapter 32, Tribal Cultural Resources, titled Study Area and Consultation and Engagement with Tribes for a discussion regarding areas upstream of the Delta, including the Trinity River. The project does not include changes to operations on Trinity River and, therefore, this area was not included in the analysis. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the Trinity River.
560-17	Introduction Save California Salmon (SCS) a 501(c)(3) non-profit organization. SCS is dedicated to restoring clean and plentiful flows and fish habitat, removing dams, and improving water quality throughout Northern California watersheds so that Northern California's fish-dependent tribes and communities can thrive. SCS is also dedicated to fighting emergent threats on rivers, such as new dams, diversions, and pipelines, and empowering communities affected by diversions and poor water management to fight for rivers and salmon. SCS works with over a dozen California tribes who depend on healthy and sustainable surface water flows for spiritual, cultural, subsistence, and recreational purposes. These tribes – including Winnemem Wintu Tribe, Shingle Springs Band of Miwok Indians, Mechoopda Indian Tribe, Pit River Tribe, Yurok Tribe, Hoopa Valley Tribe, and Karuk Tribe – have a vested interest in water quality and fisheries-related decisions.	This information describes the background of the organization or individual commenter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	Additionally, SCS's board of directors is chiefly comprised of leaders and members of tribes from the Northern California watersheds in which the organization works. To achieve its mission, SCS publicly advocates before state and federal agencies to prevent excessive diversions and dewatering of Bay-Delta waterways, their headwaters, and other Northern California waterways of vital importance to tribes; to restore natural instream flow conditions; and to allow regeneration of healthy fish habitat. SCS has been involved in submitting written comments and public testimony on efforts against the Delta Conveyance Project on many occasions. In these public proceedings, SCS advocates for the rights and interests of tribes in the Bay-Delta and those with ancestral connection to interrelated waterways, including the Sacramento. Klamath and Trinity Rivers.	
560-18	The Tribal Cultural Resource Chapter Did Not Receive Its Own Analysis and Was Supplemented By Other DEIR Chapters At the beginning of the chapter on Tribal Cultural Resources, the document states that "the analysis of Tribal cultural resources were...informed by the resource analyses contained in other chapters. [Footnote 1: Delta Conveyance Project Draft Environmental Impact Report, 32-1, Department of Water Resources (2022). ("DEIR")] The DEIR correctly states that tribal cultural resources are "unlike most other environmental resources" and are "composed of several elements." [Footnote 2: DEIR at 32-1.] It goes on to describe how nine other chapters of the DEIR informed Chapter 32. [Footnote 3: See DEIR: Chapter 5, Surface Water Chapter 6, Water Supply; Chapter 7, Flood Protection;	Please see response to comment 560-6 regarding a discussion of the independent analysis of Tribal cultural resources in Chapter 32, Tribal Cultural Resources, and the holistic view of those resources that could contribute to Tribal cultural resources. Please refer to Common Response 16, Tribal Cultural Resources, regarding the consideration of impact analyses from other chapters when analyzing impacts on Tribal cultural resources in Chapter 32.

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	Chapter 8, Groundwater[;] Chapter 9, Water Quality; Chapter 12, Fish and Aquatic Resources; Chapter 13, Terrestrial Biological Resources; Chapter 18, Aesthetics and Visual Resources; Chapter 19, Cultural Resources.] Considering how unique tribal cultural resources are it is concerning that this chapter was informed through separate analyses that likely do not fully acknowledge the significance of tribal cultural resources. For the Final EIR, we recommend that DWR ensure that Tribal cultural resources receive its own analysis.	
560-19	Additionally, since tribal cultural resources are so intersectional, it would be more informative if each section that was used to inform the Tribal Cultural Resource chapter also included a brief section of the Tribal Cultural Resources that are associated with the other chapters. We also recommend that tribal cultural resources be referenced in the nine chapters that they are interrelated with.	Please see Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal Cultural Resources in other resource chapters as well as response to comment 560-6 regarding the text that has been added to various chapters in the Final EIR acknowledging the overlap between Chapter 32, Tribal Cultural Resources, and other resource chapters.
560-20	The Inadequate Handling of Tribal Relations Exemplifying That DWR Does Not Prioritize the Protection of Tribal Cultural Resources Tribal consultations and outreach were arbitrary and ineffective. There have been years of consultations. The DEIR states that even after consultation and if there has not been a resolution, DWR can still move forward with the Project. [Footnote 4: DEIR at 32-12 -- 32-13.] This means that DWR can purposely ignore all of the Tribal concerns that were raised during consultation. This is an unfair limitation on consultation and could result in	Please see the responses to comments 560-7 and 560-8 regarding Tribal consultation and outreach. As identified in Chapter 3, Description of the Proposed Project and Alternatives, DWR will not make a decision on the project until after addressing public comments on the Draft EIR, certifying the Final EIR, and making all necessary findings, including preparing a statement of overriding considerations. DWR has reviewed all comments and will consider all comments in its decision-making process. Please refer to Common Response 16, Tribal Cultural Resources, for a discussion of the EIR's consistency with current state policies regarding Indigenous people in California and the consideration of Tribal perspectives

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	detrimental impacts to Tribes that have valid concerns about the proposed project and the impact to Tribal cultural resources. In addition to the consultations, DWR held informational meetings in 2019. During these meetings Tribes were given the opportunity to ask questions and provide comments however since it was not formal consultation, DWR was not required to address issues that were raised during these meetings which makes the meetings somewhat arbitrary for the purposes of Tribal engagement and collaboration.	in DWR's decision on whether to approve the project. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approval of projects with significant and unavoidable impacts.
560-21	The Tribal Representative Meetings were inefficient and poorly circulated and should be revisited. The first Tribal Representative Meeting that was held on this DEIR had less than ten Tribes in attendance and was extremely poorly noticed. This meeting was held after the announcement of the extension of the comment period so there had been very little time for most Tribes to review the extensive Draft EIR enough to make substantial comments. Concern was voiced over the poor attendance, despite 121 Tribes being initially notified about the Project. A second meeting was only planned after concern was raised over the low attendance and lack of time that Tribes were given to review and prepare comments. The second meeting was more well attended but was still low considering the number of Tribes that were first notified about the project.	Please refer to Chapter 35, Public Involvement, and Common Response 2, Public Outreach Activities, for an overview of public outreach efforts conducted throughout the EIR process. Tribes have been included in the notifications for public outreach activities intended to inform all interested parties about the project. In addition to the three public meetings to accept comments on the Draft EIR, which were open to anyone, DWR held two meetings limited to Tribal leadership, Tribal government representatives, and Tribal communities to encourage participation and accept verbal comments on the Draft EIR. Please also see Chapter 32, Tribal Cultural Resources, and Common Response 16, Tribal Cultural Resources, for more information on Tribal consultation, engagement, and outreach for the project.
560-22	These meetings were only for Tribes to offer verbal comments on the Draft EIR but there should have instead been an opportunity for the Tribal representatives to ask questions. The process of preparing comments for the Draft EIR has been difficult for some Tribes that have limited resources. As such, having the opportunity to ask questions and hear comments and questions that other Tribes have would have been	Please see responses to comments 560-7, 560-8, and 560-21 regarding Tribal consultation and outreach. As described in Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, DWR provided multiple opportunities for Tribes to ask questions and hear comments and questions posed by other Tribes. This includes general informational

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	extremely helpful for Tribes that had limited resources or did not have time to review the documents. Consultations with individual Tribes offers a more secluded result and separate Tribes interests. It would be more beneficial for Tribes if they had the opportunity to ask questions together in a shared space and would foster more collaboration. Since not all Tribes have the resources to respond to comments as much as they would like to, having the ability to hear from other Tribes would be greatly helpful.	meetings hosted by DWR that included both presentations by DWR and the opportunity to pose questions to DWR, as well as the series of informational meetings hosted by and for Tribes.
560-23	During the Tribal Representative Meetings, a PowerPoint presentation preceded the comment portion of the meeting. [Footnote 5: This presentation was from the December 7, 2022 Tribal Representative meeting but had the same content as the October 12, 2022 meeting. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Tribal-Engagement/DCPOverview-EIR-PresentationTribalRepsMtg12722.pdf]. In this presentation on the summary slide about DEIR Chapter 32: Tribal Cultural Resources, it states that the chapter "proposes mitigation measures to reduce the effects of any potentially significant impacts to Tribal cultural resources." That is a completely inaccurate statement and misrepresents the level of protection being afforded to Tribal cultural resources by DWR. Each of the mitigation measures that are proposed in Chapter 32 result in significant and unavoidable impacts to Tribal cultural resources. As mentioned above, many Tribes have limited resources to participate in administrative processes for projects so many Tribes likely did not have time to review the DEIR, prior to the meetings, especially for the first meeting in October. Considering that Tribes and Tribal representatives may have not had time to fully review the DEIR for these meetings, it is unlikely that they were aware that all proposed	As described in Chapter 32, Tribal Cultural Resources, impacts on Tribal cultural resources are determined to be significant. Mitigation measures are proposed and will be implemented through the preparation of a Mitigation Monitoring and Reporting Program. As described in Chapter 32, DWR has identified a suite of mitigation measures to mitigate impacts on the Delta TCL at various scales in recognition of the complexity of the Tribal cultural landscape. Mitigation Measure TCR-1a seeks to avoid impacts on a localized scale by seeking design modifications or protective measures that would avoid impacts on individual character-defining features, and Mitigation Measure TCR-1b requires DWR to prepare an overarching Tribal cultural resources management plan that will include procedures for preparing resource-specific treatment plans in each situation where impacts cannot be avoided. Landscape-scale mitigation is achieved through Mitigation Measure TCR-1c, which includes DWR support for Tribal stewardship activities through funding and access opportunities, to be defined in coordination with affiliated Tribes, that allow Tribes to restore land and develop conservation projects. Additionally, Mitigation Measure TCR-1d commits to incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological

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	mitigation measures resulted in significant impacts to Tribal cultural resources. Regardless, DWR misrepresented the level of impact in the proposed mitigation measures and to correct this mistake, we recommend DWR reach out to those who attended the meetings and draw attention to the mistake and allow those Tribal representatives to reevaluate the DEIR and provide supplemental comments based on the correct information.	resources, fish and aquatic resources, and cultural resources. However, as described in Chapter 32, even with mitigation incorporated, impacts would not be fully reduced and are determined to be significant and unavoidable. DWR is committed to continuing consultation and engagement with Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts. As described in Chapter 4, Framework for the Environmental Analysis, mitigation measures with potential to cause environmental effects are evaluated in Chapters 7-32.
560-24	We recommend DWR continually to hold meetings for Tribal representatives and allow them to ask questions as long as this project continues. If DWR truly cared about collaboration with Tribes, it would make the participation process more accessible and helpful for under-resourced Tribes and make the process more equitable.	As described in Chapter 32, Tribal Cultural Resources, DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures, including facilitating regular meetings with affiliated Tribes.
560-25	DWR is not acting in good faith by failing to protect the Delta's Tribal Cultural Landscape or Tribal Cultural Resources and failing to understand the cultural significance of the Delta. There are many troubling aspects to the Draft EIR when it comes to preserving Tribal Cultural Resources, mainly the fact that despite years of Tribal consultations and supposed desire of DWR to collaborate with Tribes, the Project is going to substantially and materially impact Tribal cultural resources.	Please see the responses to comments 560-7 and 560-8 regarding Tribal consultation and outreach. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. DWR recognizes, and the EIR acknowledges, the Delta's importance to Tribes. The Chapter 32 section titled Sacramento–San Joaquin Delta Tribal Cultural Landscape describes the Delta Tribal Cultural Landscape, which was evaluated as a cultural (sometimes called ethnographic) landscape, which relies on the continued recognition of culturally important processes in addition to historical trends. Although the analysis in Chapter 32 concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or

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		minimize impacts where feasible. For example, as described in response to comment 560-23, DWR would implement Mitigation Measure TCR-1a to incorporate preconstruction surveys and feasible avoidance or protection measures in the design, construction, operations, and maintenance activities to avoid or protect Tribal cultural resources. Where avoidance or protection is not feasible, DWR would implement other mitigation measures (Mitigation Measures TCR-1b, TCR-1c, and TCR-1d), as applicable. This would include mitigation by way of resource-specific treatment in consultation with affiliated Tribes and the incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and DWR will continue to consult with affiliated Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts.
560-26	Despite all the evidence provided by Tribes and expression of how important these cultural resources and landscape is to the Tribes, DWR has determined that the Project is seemingly more important and preserving already dwindling traditions, critical resources such as fisheries, and irreplaceable religious sites.	Please refer to response to comment 560-25 regarding the evaluation of the Delta as a Tribal cultural landscape and the impact analysis and mitigation measures included in Chapter 32, Tribal Cultural Resources. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources and the consideration of Tribal perspectives in DWR's decision on whether to approve the project.
560-27	The DEIR notes that consultation can conclude if "a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached." [Footnote 6: Cal. Pub. Res. Code § 21080.3.2(b)(2).] Given the extent of information shared with DWR by consulting Tribes, the conclusion that all alternatives will result in significant and unavoidable impacts to	Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please see Chapter 32 and Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation

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	Tribal cultural resources is not evidence of "good faith."	for Tribal cultural resources. As described in responses to comments 560-23 and 560-25, although the analysis in Chapter 32 concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and will consider Tribal perspectives in DWR's decision on whether to approve the project.
560-28	As a part of consultation, DWR should consider some mitigation measures that would avoids [sic] or result in potentially less significant impacts to Tribal cultural resources [Footnote 7: Cal. Pub. Res. Code § 21080.3.2(a)] but there are no mitigation measures proposed with those findings. The DEIR acknowledges that the "Delta holds great significance to Tribes" and notes the opposition that Tribes have against the project because of the "potential unmitigable impacts on the Tribal cultural landscape and the many resources that make [the Delta] foundation to Tribes." [Footnote 8: DEIR at p. 32-2, ln. 34-37.] While it is important to recognize the significance, the DEIR avoids offering any effective mitigation or alternative which would avoid or lessen the potential impact to such a vital location.	Please refer to response to comment 560-25 regarding the impacts and mitigation measures described in Chapter 32, Tribal Cultural Resources. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources, and the adequacy of the mitigation measures included in Chapter 32.
560-29	The DEIR claims that recognition of the Delta Tribal Cultural Landscape (TCL) "respects the consulting Tribes' willingness to discuss Tribal history, ceremony, and sacred Tribal affiliations with the Delta...and the willingness to discuss sensitive Tribal perspectives about being displaced from ancestral lands and loss of the Tribal lands to non-Tribal people." [Footnote 9: DEIR at p. 32-3, ln. 15-18.] However, sole recognition of the Delta as a tribal cultural landscape is the bare minimum. This administrative process has required years of work from Tribes	Please refer to response to comment 560-25 regarding the evaluation of the Delta as a Tribal cultural landscape and the impact analysis and mitigation measures included in Chapter 32, Tribal Cultural Resources. DWR is committed to continued understanding and incorporation of Tribal knowledge through close collaboration and engagement on the implementation of the mitigation measures as described in Chapter 32. DWR appreciates the investments made by consulting Tribes in sharing Tribal knowledge with DWR through formal consultation for CEQA review of the Delta Conveyance Project. DWR invited each Tribe to provide DWR

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	for them to provide education and disclose information that is not normally shared outside of the Tribe. Given the historical relationship of California Tribes and the state government, it means a lot for Tribes to put trust into a government agency and disclose the locations of cultural sites and resources. Additionally, consultation that required Tribes to revisit the harmful memories of removal from and taking of ancestral land from them is especially important. But by the end of the chapter, DWR has decided that the tribal cultural landscape and resources are not worth preserving and even with mitigation measures these resources will face significant impacts with the completion of the potential project.	with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. Any information consulting Tribes chose to share with DWR factored into DWR's finding that the Delta TCL meets the criteria for listing in the California Register of Historical Resource and thus qualifies as a Tribal cultural resource under CEQA. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources and the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Comments regarding the approval of projects with significant and unavoidable impacts are also addressed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues.
560-30	Sections 32.1.2.1 Consultation and Engagement with Tribes and 32.1.2.2 Archival and Ethnographic Research, detail the extensive research that went into research and gathering information about Tribal Cultural Resources from Tribes and from other sources. Tribes continually provided information to DWR on the relationships between the natural and human-made features within the cultural landscape and how despite the colonization and development of the land, the land still retains culturally significant physical, spiritual, and ceremonial features. [Footnote 10: DEIR at p. 32-3, ln. 4-7.] However, despite all of the research conducted, DWR does not fully understand the cultural connection that Tribes have to nature in all its forms. The fact the DWR does not analyze cultural impacts outside the project area when this will impact the waters, fisheries and Tribes, from the San Francisco Bay to	DWR recognizes that the Tribes perceive that project effects would extend beyond the study area due to the interconnectedness of waterways and the changes to spiritual associations when flows are altered. As described in the Chapter 32, Tribal Cultural Resources, section titled Study Area, no construction would occur outside of the Delta counties, and the proposed project and alternatives would not change operational criteria associated with upstream reservoirs. Some indirect operational changes could occur because of the interconnectedness of the waterways, but modeling analysis has indicated that these changes would be negligible (see Chapter 5, Surface Water). Because changes to reservoir storage and river flows would be minimal, they would not have the potential to affect resources upstream from the Delta and those areas are not included in the study area. Additionally, there would be no physical alterations and minimal variations in surface water flows south of the Delta in SWP and CVP service areas. Therefore, the study area does not include the potential for physical

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	above the Shasta dam, along with Tribal restoration efforts, further shows DWR's lack of understanding.	impacts in areas upstream of the Delta region or the south-of-Delta SWP and CVP service areas. The Chapter 32 section titled Consultation and Engagement with Tribes describes DWR's good faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the selection of the study areas evaluated in the EIR.
560-31	Proceeding with the proposed project would mean the destruction of sacred sites, creation story landscapes, basket materials, aquatic species, bird species, fisheries, and the water itself. Destruction of sacred sites has been a threat to Native Americans since before the United States existed. [Footnote 11: Steele, Michalyn and Stephanie Hall Barclay, "Rethinking Protections For Indigenous Sacred Sites," Harvard Law Review, 134 Harv. L. Rev. 1294. (02/10/21) https://harvardlawreview.org/2021/02/rethinking-protections-for-indigenous-sacred-sites/] The Tribes that were removed from their traditional homelands in the Delta and from related waterways have never had the power to reclaim their homelands and instead have been forced to navigate governmental processes in order to attempt to protect their sacred sites. Despite regulations, protection of sacred sites is lacking. There is a general understanding that the failure to protect sacred sites comes from agency and government misunderstanding of Native Americans' unique spiritual traditions. [Footnote 12: Id.] Additionally, courts have used the uniqueness of Tribal traditions as an excuse to deny traditional protections. [Footnote 13: Id.]	Please see response to comment 560-11 regarding the No Project Alternative. Please also see response to comment 560-25 regarding the mitigation measures that have been identified to avoid or minimize impacts on Tribal cultural resources where feasible. DWR provided information about the project to each of the consulting Tribes and invited each Tribe to provide DWR with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. Any information consulting Tribes chose to share with DWR regarding Tribal traditions and archaeological resources factored into DWR's finding that the Delta TCL meets the criteria for listing in the California Register of Historical Resources and thus qualifies as a Tribal cultural resource under CEQA. Please refer to Common Response 16, Tribal Cultural Resources, regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources was consistent with current State policies regarding Indigenous people in California.

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	Throughout the Draft EIR, DWR reiterates its commitment to avoiding harm to Tribal cultural landscapes and resources. However, if DWR were honestly concerned and truly committed to avoiding Native American archaeological resources, then the only viable project alternative is the No Project Alternative. [Footnote 14: DEIR at p. 32-47.]	
560-32	The DEIR does not provide adequate analysis of the alternatives and mitigation measures. All mitigation measures conclude with the same finding that the proposed project would materially impair the Tribal Cultural Landscape and Individual Tribal Cultural Resources, which is a violation of CEQA. CEQA requires the DEIR to include a reasonable range of alternatives to the proposed project that would avoid or substantially lessen any of the significant effects of the project and would foster informed decision making and public participation. [Footnote 15: Cal. Code Regs. Tit. 14 § 15126.6 (a).] Additionally, CEQA states that "[b]ecause an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." [Footnote 16: Cal. Code Regs. Tit. 14 § 15126.6 (b).] The DEIR fails to provide a reasonable range of mitigation alternatives for Tribal cultural resources because all alternatives result in the same level of impact. There are five alternatives proposed in addition to the No Project Alternative and the impacts to Tribal cultural resources under all alternatives, besides the No Project	Please see responses to comments 560-25 and 560-29 regarding significant and unavoidable impacts and the mitigation measures that have been identified to avoid or minimize impacts on Tribal cultural resources where feasible. Please also refer to Common Response 16, Tribal Cultural Resources, regarding the adequacy of the mitigation measures included in Chapter 32, Tribal Cultural Resources. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use and incorporation of mitigation measures. As stated in Common Response 1, even when it was determined that impacts cannot be fully reduced to less-than-significant levels—as in the case of Tribal cultural resources—feasible mitigation measures are nevertheless proposed. Because these measures will not reduce the impacts on these resources to less-than-significant levels, the impacts are determined to be significant and unavoidable. Further, if feasible mitigation measures can be implemented but cannot fully reduce or avoid impacts to levels that are less than significant, CEQA allows lead agencies to adopt a statement of overriding considerations when approving a project (CEQA Guidelines Section 15093). Please see Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR and the differences between the alternatives evaluated in the EIR.

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	Alternative, will be substantial and unavoidable. Having all alternatives result in the same level of impact which do not avoid or substantially lessen the impact to Tribal cultural resources is a violation of CEQA. Further, for each mitigation measure there will still be significant impacts on Tribal cultural resources. Mitigation is "the process or result of making something less severe,...harsh, or damaging." [Footnote 17: "Mitigation." Merriam-Webster.com Dictionary, Merriam-Webster, www.merriam-webster.com/dictionary/mitigation.] After going through the analysis for the mitigation measures, the DEIR concludes that the proposed project would significantly impact Tribal cultural resources. Since the proposed mitigation measures will not make the impact to Tribal cultural resources less severe, harsh, or damaging, the measures will not mitigate the impacts and therefore the proposed mitigation measures are inadequate.	
560-33	This DEIR states that there will be "nominal effects" of the project alternatives on character-defining fish and aquatic species habitats and would result in less than significant from a biological perspective. [Footnote 18: DEIR at p. 32-3.] However, this analysis fails to incorporate Tribal interests in the cultural resources. It goes on to say that the proposed project "would not materially impair an affiliated Tribe's ability to physically, spiritually, or ceremonially, experience theses [sic] character-defining features of the Delta TCL [Tribal Cultural Landscape]." [Footnote 19: DEIR at p. 32-3.] This is unlikely because fish and aquatic species are vital to the culture and traditions of Tribes of the Delta and beyond. It is inaccurate to conclude that with any sort of disturbance to habitats that there will not be a disruption of cultural practices. Harm to fish species in any way is significant to Tribes who often see the fish as their relatives	Please see the Chapter 32, Tribal Cultural Resources, section titled Sacramento–San Joaquin Delta Tribal Cultural Landscape for the discussion of the role fish species, including salmon, play in the significance of the Delta TCL and the features of the landscape that are included in the California Register of Historical Resources–eligible Tribal cultural landscape. DWR understands and recognizes that native fish have cultural value to Tribes, and it has consulted with Tribes and considered the impacts on native fish species habitats as a character-defining feature of the Delta as a Tribal Cultural Landscape. Please see Chapter 32 regarding DWR's consultation and engagement with Tribes on the project, the definition of Tribal cultural resources, and those resources identified as Tribal cultural resources. Please see Common Response 16, Tribal Cultural Resources, regarding DWR's consideration of individual Tribal cultural resources, as well as the documentation in the record regarding DWR's evaluation of Tribal cultural resources.

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	and who they are meant to protect. If there is harm done to fish and aquatic habitats, that often leads to harm to the fish itself in the form of population decrease, fewer spawning salmon, or inability to migrate. When there are fewer salmon, it can inhibit the ceremonies therefore it is inaccurate to state that with impacts on fish and aquatic species that there would not be material impairment on Tribal cultural resources. Currently very few Delta, San Francisco Bay and tributary Tribes have any access for salmon for ceremony or subsistence fishing. This is a direct violation of their rights.	Chapter 32, Impact TCR-1, considers multiple variables (described as character-defining features) as part of the Delta Tribal Cultural Landscape, including those identified in the table titled Tribal Views on Delta TCL Character-Defining Features. For example, terrestrial and aquatic plant and animal species and their habitats are identified as part of both the Delta's ecosystem and character-defining features that represent heritage and cultural significance to Tribes pertaining to sustenance, traditional knowledge, ceremony, spiritual practices, and stewardship. As such, the impact analysis in Chapter 32 considers the various individual resources identified by Tribes, including fish habitat, and the values these resources contribute to the Tribal Cultural Landscape. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and DWR will continue to consult with affiliated Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts, including options for accessing restoration sites proposed as mitigation under the CMP.
560-34	Missing from the analysis is any discussion of Tribal Beneficial Uses (TBU) despite current processes to identify and protect uses. Including TBU into the analysis would be an effective way to ensure that Tribal uses of the Delta and its resources are not overlooked.	Please see response to comment 560-13 regarding Tribal Beneficial Uses.
560-35	The DEIR fails to adequately express the impacts from all alternatives by excluding proper analysis of the No Project Alternative. The DEIR does not offer proper analysis of the No Project Alternative by failing to categorize the No Project Alternative impacts per CEQA, excluding Tribal Cultural Resources from Appendix 3C, and neglecting to analyze the impacts to Tribal	Please see response to comment 560-11 regarding the approach to describing and evaluating the No Project Alternative, which meets CEQA requirements. Chapter 32, Tribal Cultural Resources, in the section titled No Project Alternative, provides a general summary of the potential construction, operations, and maintenance impacts on Tribal cultural resources from the likely projects under the No Project Alternative, which includes the

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	cultural resources from other projects under the No Project Alternative. The DEIR does not effectively analyze the effects on Tribal cultural resources from plans, policies, and programs for the No Project Analysis. CEQA requires agencies to discuss a project's potentially significant impacts in the draft EIR and final EIR. [Footnote 20: CEQA Guidelines, § 15120, subd. (c); see also id., §§ 15125, 15126.2.] The impacts on Tribal Cultural Resources are completely left out [of] Appendix 3C, which describes the No Project Alternative. Additionally, Tables ES-27 and 32-0 show that there will be significant and unavoidable impacts for the five project alternatives but does not include the impacts for the No Project Alternative. Out of all five potential project types described in Table 32-1, none of the construction or operational and maintenance effects note the level of impact to Tribal cultural resources. It is deceiving to exclude the No Project alternative from the tables of other alternatives when it should be included for proper comparison of alternatives. In determining the predictable actions by other agencies, the DEIR fails to analyze the impact that other water projects would have on Tribal cultural resources because it cannot foresee the types of resources that may be present in the unique location of a given project. [Footnote 21: DEIR at p. 32-34.] However, with the construction of any water project there are likely similar impacts to Tribal cultural resources regardless of the locations. Water supply projects often have negative impacts on ceremonial or spiritual sites and on aquatic species, including fish and traditional Tribal materials. After the extensive consultation with Tribes, the DEIR can include	potential to materially impair character-defining features of a Tribal cultural resource or materially impair an affiliated Tribe's ability to spiritually or ceremonially experience character-defining features of a Tribal cultural resource. As described in Chapter 32, these water supply reliability projects would occur outside of the project study area, therefore, DWR does not know whether Tribal cultural resources would be present or the nature of the potential Tribal cultural resources that could be affected. Tribal cultural resources are uniquely related to the geography in which they exist and the Tribe(s) with which they are affiliated. DWR cannot foresee the types of resources that may be present, and as a result, any analysis would be speculative. As part of planning and environmental reviews for such projects, each water agency would follow its own policies for complying with state laws related to Tribal consultation and the identification of Tribal cultural resources, as Tribal cultural resources are uniquely related to the geography in which they exist and the Tribe(s) with which they are affiliated. Additionally, as described in the section titled Analysis of Project Effects in Chapter 4, Framework for the Environmental Analysis, the No Project Alternative section in the resource chapters steps through all of the impact mechanisms but does not include impact subheadings. Because it is impossible to know with certainty the exact mix of projects and programs that water suppliers would implement if the Delta Conveyance Project were not approved, the No Project Alternative analysis is largely programmatic, not project-specific. For that reason, no CEQA Conclusion is provided in the resource chapters for the No Project Alternative and is, therefore, not shown in Executive Summary table titled Comparison of Impacts on Tribal Cultural Resources by Alternative or in the Chapter 32 table titled Comparison of Impacts on Tribal Cultural Resources by Alternative.

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	educated assumptions of what other water supply projects will have on Tribal cultural resources and that should be included in the analysis. To effectively compare every alternative, the No Project Alternative analysis must detail the level of impact to Tribal cultural resources. Additionally, the No Project Alternative should be included on Table 32-0.	
560-36	Despite lack of proper analysis, the No Project Alternative is the only reasonable alternative to protect Tribal cultural resources. The DEIR states that under the No Project Alternative the condition of Tribal cultural resources is not expected to substantially change, even with current development trends and natural processes. [Footnote 22: DEIR at p. 33.] However, the DEIR explains that impacts on the rivers or waterways as aspects of the Delta TCL may be impacted by upstream hydrological conditions, climate change in the form of sea level rise, and the potential threat of seismic activity on the Delta levees. These potential impacts that may occur under the No Project Alternative would result in far less significant impacts to Tribal cultural resources than if the proposed project were to be approved. Additionally, there are mitigation measures that can be applied to these supposed threats to the Tribal cultural, such as wetland preservation and restoration for sea level rise which would be threatened if the proposed project is built. The discussion of climate change in this section is minimal and requires more detailed analysis and a broader scope regarding the impacts to the Delta. Further, missing from the discussion of potential future projects and the Cumulative Analysis is any discussion of how the proposed Sites Reservoir	Please refer to response to comment 560-11 regarding the No Project Alternative. As identified in Chapter 3, Description of the Proposed Project and Alternatives, DWR will not make a decision on the project until after addressing public comments on the Draft EIR, certifying the Final EIR, and making all necessary findings, including preparing a statement of overriding considerations. Comments regarding the approval of projects with significant and unavoidable impacts are addressed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. Please see the response to comment 560-14 regarding the consideration of the proposed Sites Reservoir project in the cumulative impacts analysis.

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	would impact Tribal cultural resources and beneficial uses. This is a very large project that proposes to draw water from waterways that directly connect to the Delta. Analysis of the impact if the Delta Conveyance Project and Sites Reservoir are both approved should be included in the EIR.	
560-37	The DEIR fails to provide an explicit conclusion on the impact that the No Project Alternative will have on Tribal cultural resources, however based on the analysis of the No Project Alternative the DEIR should state that this alternative would avoid or result in less than significant impacts on Tribal cultural resources. The avoidable or low impact from No Project Alternative should be expressed clearly and in conjunction with the other alternatives for proper comparison and to make it clear that it is the best alternative for protection of Tribal cultural resources.	Please see responses to comments 560-11 and 560-35 regarding the No Project Alternative.
560-38	The DEIR's Analysis and Conclusions Regarding Environmental Impacts to Native Fish Fails to Use the Best Available Science and Misleads the Public and Decision makers as to the Likely Effects of the Project The analysis that is included in the DEIR of the environmental impacts of the proposed project fails to use the best available science and underestimates the significant impacts that are likely to result from the proposed projects and alternatives. Additionally, the conclusions that are drawn regarding mitigation measures for the impacts that are identified as significant fail to use the best available science, are not supported by evidence, and are arbitrary and capricious. Further discussion on the analysis of specific impacts to Native fish species can be found in the comments submitted by Natural Resources Defense Council et al., submitted December 16, 2022.	As described in responses to comments 560-15 and 560-33, the EIR has been prepared in accordance with CEQA and adequately discloses the potential, scope, severity, and magnitude of potential impacts for the environmental resources analyzed in the EIR, including those related to native fish. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science in the preparation of the EIR. Responses to comments related to native fish species submitted by Natural Resources Defense Council et al. are provided in Volume 2, Chapter 4, Response to Comments Tables. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, to locate the letter numbers of comments provided by other entities that are of interest.

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560-39	Tribal Significance of Protecting Native Fish The importance of native fish to Tribes is overlooked in the classification of Tribal cultural resources. There is a gap in the classification of Tribal cultural resources when it comes to fish and other aquatic species. To adequately encompass all of the Tribal cultural resources that are within the Delta, salmon needs to be classified as a Tribal cultural resource. Salmon, along with other aquatic species play a vital role in many Tribal traditions, including as traditional food source, for ceremonial purposes, and in some cases, they are a part of Tribal creation stories.	As described in responses to comments 560-15 and 560-33, DWR understands and recognizes that native fish, including salmon, are key species for Tribes. DWR has consulted with Tribes and considered the impacts on salmon and other native fish species habitats as a character-defining feature of the Delta as a Tribal Cultural Landscape. Please see Chapter 32, Tribal Cultural Resources, regarding DWR's consultation and engagement with Tribes on the project, the definition of Tribal cultural resources, and those resources identified as Tribal cultural resources. Please see Common Response 16, Tribal Cultural Resources, regarding DWR's consideration of individual Tribal cultural resources, including salmon, as well as the documentation in the record regarding DWR's evaluation of Tribal cultural resources. Chapter 32, Impact TCR-1 considers multiple variables (described as character-defining features) as part of the Delta Tribal Cultural Landscape, including those identified in the table titled Tribal Views on Delta TCL Character-Defining Features. For example, terrestrial and aquatic plant and animal species and their habitats, including those of salmon, are identified as part of both the Delta's ecosystem and character-defining features that represent heritage and cultural significance to Tribes pertaining to sustenance, traditional knowledge, ceremony, spiritual practices, and stewardship. As such, the impact analysis in Chapter 32 considers the various individual resources identified by Tribes and the values these resources contribute to the Tribal Cultural Landscape.
560-40	The DEIR'S Analysis of Impacts to The Trinity River and Related Tribes Is Inadequate. The DEIR states that the Trinity River was not included because "the NAHC did not identify the project area to be traditionally and culturally affiliated with [the Karuk Tribe and Yurok Tribe]." [Footnote 23: DEIR at 32-11.] However, just because the NAHC does not have documentation of the connection Trinity River	Please see the responses to comments 560-16 and 560-30 and Common Response 16, Tribal Cultural Resources, regarding DWR's good faith effort to foster meaningful consultation with Tribes and the appropriateness of DWR's selection of the study areas evaluated in the EIR. In addition, Common Response 16 discusses DWR's definition of the Delta TCL boundary. Additionally, please see Common Response 9, Hydrologic Modeling and

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	tribes have with the Delta, it does not mean that it was not used by those Tribes. The DEIR states that the Delta is a holistic place and was "used by people..for sustenance, refuge, travel, ceremony, trade, and burial." [Footnote 24: DEIR at 32-25.] Tribes outside of the project area, including those with homelands along the Trinity and Sacramento Rivers, rely on the Delta for sustenance because the condition of the Delta is an important factor for flows and determining whether the fish Tribes rely on can survive. In evaluating the requirements for identification of Tribal cultural resources, the DEIR referenced recent guidance and states that "a 'cultural landscape approach' is a holistic approach to identifying, treating, and managing heritage sources that 'recognizes broad interconnections and does not consider a single artifact or a single species as existing without complex relationships.' [citation omitted]" [Footnote 25: DEIR at 32-17.] Since the DEIR adopted the cultural landscape approach and established the Delta Tribal Cultural Landscape, the analysis of the TCL [Tribal Cultural Landscape] should be holistic and encompass not only the Delta waterways, but also the waterways that feed into the Delta, specifically the Trinity River. The San Francisco Estuary Institute study that is referenced emphasizes the wide footprint of the Delta on the state as a whole, connecting two-thirds of California through its related watersheds, and the fact that it is central to the larger landscape and related ecosystems. [Footnote 26: DEIR at 32-24.] With such an expansive reach and a direct connection to the Trinity River via the CVP [Central Valley Project], the analysis of the impacts to the Trinity River should be analyzed. Additionally, the DEIR states that "Tribal people continue to	Approach, for further discussion of the hydrologic modeling of the proposed project and project alternatives. In particular, see the discussion in Common Response 9 regarding how CalSim 3 simulations informed DWR's consideration of Delta Conveyance Project effects upstream from the proposed north Delta diversion. Proposed project operations do not conflict with the operational criteria for Shasta, Trinity, or Folsom Reservoirs nor does the Delta Conveyance Project propose any operational criteria changes upstream of the Delta. All the existing reservoir operation criteria will be met with the same frequency as conditions without the proposed project. Please also see Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes.

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	look to the Delta for livelihood, ecological knowledge, ceremony and spirituality, and heritage." [Footnote 27: DEIR at 32-21.] This does not only apply to Tribes whose homeland is the Delta. As noted above, the Delta ecosystem is closely tied to other watersheds, and it is an important factor in maintaining flows and good water quality for the Trinity River. The DEIR states that DWR learned that the Karuk Tribe and Yurok Tribe had concerns about potential indirect effects on the Trinity Rivers but declined to include the Trinity River because the proposed project "does not include changes to operations on either of these rivers or the surrounding area" [Footnote 28: DEIR at 32-11.] The Delta Conveyance DEIR's claim that the proposed action will not significantly affect the Trinity River or other upstream operations such as Shasta Reservoir is disingenuous at best, and defies logic. Part of the project's purpose and need is to meet full CVP contractual commitments, and upstream operations will necessarily be affected by that goal through depleted reservoir storage and an increase in dead pool frequency, even without considering the effects of climate change.	
560-41	As stated in comments by the Environmental Water Caucus in its earlier "WaterFix Project'' comments (See WaterFix DEIRS 778-64), "total consumptive water rights claims for the Sacramento and Trinity River basins exceed annual average unimpaired flows by a factor of 5.6 acre-feet of claims per acre-foot of flow." Indeed, more recent studies like the UC Davis study (Theodore E. Grantham, et al. (2014), [Footnote 29: See Theodore E. Grantham, et al., "100 years of California's water rights system: patterns, trends and uncertainty." Environ. Res. Lett. 9 (2014) 084012 (10pp). https://iopscience.iop.org/article/10.1088/1748-	This comment was submitted on the Bay Delta Conservation Plan/California WaterFix Project. The comment does not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer pursued. The analysis contained in the EIR is not consistent with the assertion by the comment that more demand would be placed on the Trinity River. The Delta Conveyance Project would not increase water demand on the Trinity River. As stated in Chapter 2, Purpose and Project Objectives, the basic objective of the Delta Conveyance Project is to restore and protect the reliability of SWP water deliveries. The Delta Conveyance Project is not

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	9326/9/8/084012.] rigorously verify that the Trinity River water permits issued to Reclamation allow storage and diversion of many times more water than is available annually in the Trinity River, even in the wettest of years. The risk of dropping water levels to the dead pool in Trinity Reservoir with resultant catastrophic fish mortality from lack of cold water resources is thus well documented, even without climate change. Existing minimum instream flows in Reclamation's Trinity River water permits require the release of 120,500 AF, while the weighted average annual release to the Trinity River under the 2000 Trinity River Record of Decision is nearly five times greater –594,500 AF. This large amount of "paper water" demand from CVP [Central Valley Project] water contracts for the Trinity River could lead to Trinity Reservoir dead pool – even without climate change – particularly since the SWRCB has consistently favored carryover storage in Folsom and Shasta Reservoirs over cold water storage in Trinity Reservoir. [Footnote 30: See SWRCB Water Right Order WR 2015-0043 (requiring 2016 minimum carryover storage in Folsom and Shasta but not Trinity).] Indeed, Trinity Reservoir was drawn down very close to dead pool in 1977 (228,000 AF). Had 2016 been drier, it is likely that Trinity Reservoir would have been drawn down to dead pool that year, since storage was at its second lowest on December 8, 2015 (470,176 AF), and WR Order 2015-0043 maintains storage only in Shasta and Folsom, and not Trinity. Since the Delta Conveyance project will increase water demand on the Trinity River, this project's impacts clearly pose a far greater risk of drawing Trinity Reservoir down to dead pool.	proposing changes to operations or amount of storage provided by upstream facilities. Please see the response to comment 560-40, which describes that the proposed project operations do not conflict with the operational criteria for Shasta, Trinity, or Folsom Reservoirs nor does the Delta Conveyance Project propose any operational criteria changes upstream of the Delta. Additionally, as described in Chapter 5, Surface Water, storage at SWP and CVP north-of-Delta reservoirs under the project alternatives are similar to existing conditions for all time periods examined (i.e., end-of-May, end-of-June, end-of-August, and end-of-September periods). For Trinity Lake, Shasta Lake, Lake Oroville, and Folsom Lake, storage changes are extremely minimal, and the changes that do occur are generally minor increases. The minor increases occur because of lower releases for exports (because of diversions at the proposed north Delta intakes) and carriage water savings. The section titled SWP and CVP Operational Assumptions and Modeling Guidelines in Appendix 5A, Modeling Technical Appendix, Section B, Hydrology and Systems Operations Modeling, acknowledges that dead pool situations for both SWP and CVP reservoirs do occur albeit infrequently. Please also refer to Common Response 9, Hydrologic Modeling and Approach, regarding the assumptions used in the modeling for Chapter 5 and Chapter 6, Water Supply, as well as Appendix 5A, Modeling Technical Appendix, Section B, Hydrology and Systems Operations Modeling, in the section titled SWP and CVP Operational Assumptions and Modeling Guidelines.

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560-42	In order to mitigate these impacts [to the Trinity River, tribal cultural resources, and native fish important to tribes] the following mitigation measure should be considered for adoption: 1. Conformance with the instream fishery flows contained in the Trinity River Record of Decision.	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for information on the analysis of upstream aquatic resources and DWR's commitment to not alter operational criteria of upstream reservoirs. It is important to note that the Delta Conveyance Project is a State Water Project (SWP) project and not a Central Valley Project (CVP) project and the SWP has no diversion upstream of the Feather River.
560-43	In order to mitigate these impacts [to the Trinity River, tribal cultural resources, and native fish important to tribes] the following mitigation measure should be considered for adoption: 2. Provision for release of Humboldt County's 50,000 AF in addition to fishery flows per the 1955 Trinity River Act.	Please refer to response to comment 560-42 for information related to the Trinity River and upstream effects.
560-44	In order to mitigate these impacts [to the Trinity River, tribal cultural resources, and native fish important to tribes] the following mitigation measure should be considered for adoption: 3. Inclusion of permit terms and conditions to require Reclamation to comply with the Trinity River temperature objectives contained in the Water Quality Control Plan for the North Coast Region (NCRWQCB) for all relevant time periods and for all uses of Trinity water diverted to the Sacramento River, including a new 50 degrees F temperature objective starting November 1 to protect incubating Coho salmon and a revised temperature objective of 53.5 degrees F to protect incubating Chinook salmon.	Please refer to response to comment 560-42 for information related to the Trinity River and upstream effects.
560-45	In order to mitigate these impacts [to the Trinity River, tribal cultural resources, and native fish important to tribes] the following mitigation measure should be considered for adoption: 4. A requirement for a minimum of cold-water storage in Trinity Reservoir adequate to preserve and propagate all runs	Please refer to response to comment 560-42 for information related to the Trinity River and upstream effects.

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	of salmon and steelhead in the Trinity River below Lewiston Dam during a multi-year drought.	
560-46	In order to mitigate these impacts [to the Trinity River, tribal cultural resources, and native fish important to tribes] the following mitigation measure should be considered for adoption: 5. Require Reclamation to solve the temperature issue in Lewiston Reservoir through a feasibility study and environmental document to follow up on the 2012 preliminary technical memorandum by Reclamation.	Please refer to response to comment 560-42 for information related to the Trinity River and upstream effects.
560-47	The Delta Conveyance DEIR requires substantial revision and recirculation. The DEIR's conclusion that the Trinity River will not be significantly affected by the Delta Conveyance project is unsupported and unsupportable on the existing record. Consideration and adoption of the foregoing mitigation measure would go a long way toward providing long overdue protection for this vital river system and its fisheries.	Please refer to response to comment 560-42 for information related to the Trinity River and upstream effects.
560-48	Other Comments The Comment Period For The DEIR Was Too Short Given The Enormity Of The Document While the extension to the comment period is appreciated by many, it was still not enough time to produce full comments. The Tribal Cultural Resources chapter is informed by nine other chapters. To fully examine Chapter 32 would require more time to efficiently review the other chapters that informed it. Additionally, the end of summer and fall are busy times for several Tribes. With it being a busy ceremonial time, Tribes have limited time and resources to dedicate to preparing comments.	Please refer to Common Response 2, Public Outreach Activities, regarding the duration of the comment period and DWR's extension of the comment period. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues regarding the length and complexity of the EIR. Please also see Chapter 32, Tribal Cultural Resources, and Common Response 16, Tribal Cultural Resources, for discussions- regarding Tribal consultation conducted to inform the development of the EIR as well as regarding ongoing consultation. Chapter 32 describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures.

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560-49	DEIR Fails To Define "Feasible" Throughout the Draft EIR, the term "feasible" is used without any formal definition of what feasible means in the context of this document. DWR will determine feasibility therefore it can favor its own project over the protection of the Tribal Cultural Landscape or Tribal Cultural Resources and can ignore the concerns of Tribes. What "feasible" means to DWR needs to be defined in the final EIR in order to properly inform Tribes and the public.	Many terms are used in the EIR that are commonly used in CEQA in the same way that such terms are defined in the dictionary. The term “feasible” is used as an adjective meaning capable of being done or carried out.
560-50	Incorrect Chapter Title On page 32-14, lines 36-37, the DEIR references the Cultural Resources chapter but misidentifies it as Chapter 32 when it is Chapter 19.	The incorrect reference to Chapter 19, Cultural Resources, has been edited in the Final EIR. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
560-51	CONCLUSION The ultimate findings for Chapter 32 and the rest of the DEIR make it clear that the Delta Conveyance Project is completed, it will just be further cultural genocide against the Indigenous peoples of California. Unless the No Project Alternative is accepted, the proposed project would materially impair character-defining features and result in a substantial adverse change to the significance of the Delta TCL [Tribal Cultural Landscape] and damage Tribal cultural resources. If the project is to move forward, the Delta Conveyance DEIR requires substantial revision and recirculation.	DWR recognizes and affirms Executive Order N-15-19, which apologized on behalf of the citizens of the State of California to all California Native Americans for the many instances of violence, maltreatment, and neglect California inflicted on Tribes. Please refer to Common Response 16, Tribal Cultural Resources, regarding how DWR’s efforts to identify and analyze impacts on Tribal cultural resources was consistent with current State policies regarding Indigenous people in California. Please see response to comment 560-11 regarding the No Project Alternative. Please also see response to comment 560-25 regarding the mitigation measures that have been identified to avoid or minimize impacts on Tribal cultural resources where feasible. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding CEQA recirculation requirements. The EIR fully evaluates potential impacts in

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		Chapters 7 through 32 of the EIR. As discussed in Volume 2, Chapter 1, Introduction and Approach to Responses to Comments, of the Final EIR, recirculation is not required.
564-1	The Friends of Stone Lakes National Wildlife Refuge, Environmental Council of Sacramento, Sacramento Audubon Society, Friends of Swainson's Hawk, Save Our Sandhill Cranes and Habitat 2020 (hereinafter, Environmental Groups) submit the following joint comments on the Draft Environmental Impact Report (DEIR) for the Delta Conveyance Project. Our organizations have engaged with the Delta tunnels projects from the outset, beginning with negotiations on mitigation and enhancement measures for the Bay Delta Conservation Plan, then with the WaterFix project as a protestant during State Water Resources Control Board hearings, and now its successor, the Delta Conveyance Project.	This information describes the structure or organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
564-2	Nevertheless, the Environmental Groups have not seen meaningful cooperation from the project developers. Stone Lakes National Wildlife Refuge (Stone Lakes NWR) is essentially ground zero for the project. The intakes, the tunnel intake structure, and the haul roads will have significant negative impacts on Stone Lakes NWR and its wildlife. As our comments herein will demonstrate, we find the DEIR to be deficient, incorrect and inadequate.	DWR has been and will continue coordinating with Stone Lakes National Wildlife Refuge regarding the Delta Conveyance Project. The EIR has been prepared in accordance with CEQA and adequately discloses the potential scope, severity, and magnitude of potential impacts for the environmental resources analyzed in Chapters 5 through 32. The comment assertions regarding significant negative impacts on Stone Lakes National Wildlife Refuge and its wildlife are not consistent with the contents of the EIR. Please see Chapter 13, Terrestrial Biological Resources, for an analysis of the project's potential impacts on wildlife and the proposed mitigation measures, which mitigate such impacts to a less-than-significant level. Responses provided herein explain in greater detail why the comment assertions regarding impacts on Stone Lakes National Wildlife Refuge are not supported by the analysis in the EIR; see, specifically, responses to comments 564-26 through 564- 44, which address comments on terrestrial biological resources.

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564-3	Please find, attached, a memorandum and supporting documents from Dr. Gary Ivey, Research Associate with the International Crane Foundation, with additional comments supporting and elaborating on our comments pertaining to the project's impacts on the Greater Sandhill Crane. Please include Dr. Ivey's memorandum in your Response to Comments on the DEIR.	This information describes the structure or organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
564-4	GENERAL COMMENTS The DEIR Does Not Consider Intake Structure Site Design Alternatives That Would Mitigate for Riparian Habitat Loss The Friends of Stone Lakes NWR submitted comments on the Notice of Preparation for the Delta Conveyance Project, dated April 17, 2020: Site and Design Alternatives to the Tunnel Intakes Must Be Evaluated. Information disclosed during the DCA Stakeholder Meetings reveals that the intake locations were solely determined by engineering considerations. In particular, no consideration has been given to terrestrial impacts in conjunction with the placement of fish intakes. The environmental analysis needs to evaluate location and design alternatives that take into account both terrestrial and aquatic impacts as opposed to optimizing engineering considerations. The DEIR appears to ignore this input. For example, the current project design places all intake infrastructure immediately behind a levee surfaced on both sides with concrete. Setting the road, intake support structures and settling ponds back from the levee would allow retaining and reestablishing the	The assertion that alternative locations for intakes was not considered is not supported by the EIR. Please refer to the Intake Site Identification and Evaluation technical memorandum in the Engineering Project Report (Delta Conveyance Design and Construction Authority 2022b) regarding the criteria considered for intake site evaluation, which included environmental and habitat disruption. The Engineering Project Report includes an intake design and siting analysis, which considered land side of levee constraints and the potential for loss of riparian vegetation. Landscape treatments described in Mitigation Measure AES-1c, in Chapter 18, Aesthetics and Visual Resources, requires landscaping with native trees, shrubs, and grassland that provide suitable habitat for both native vegetation and wildlife. This mitigation is in addition to post-project landscaping included in the project and described in Appendix 3B, Environmental Commitments and Best Management Practices, Environmental Commitment EC-4a. Sedimentation basins require a hard-surface lining to prevent erosion, facilitate maintenance, and provide a hard surface to indicate the bottom was reached during dredging. Linings would be porous, however, anticipated to consist of riprap or articulated concrete mats. Drying lagoons would be concrete lined to minimize groundwater entering through the lagoon floor to avoid lagoon buoyancy issues and high water levels that could overtop the lagoon levees (Delta Conveyance Design and

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	riparian corridor. There is no consideration of alternatives to the completely concrete-lined intake structure, which would allow for the planting of shallow-rooted native pants on a greenspace levee designed to maintain continuity with the riparian corridor. Nor is there consideration of extending the riparian corridor to include the planting of more deeply rooted trees and riparian plants between the inland foot of the levee and the intake support structures and settling ponds. The DEIR thus fails to mitigate at the project site for the loss of important riparian habitat for critical species, as discussed in greater detail below. [see comments 5-7]	Construction Authority 2022c). Biological impacts are reduced to less-than-significant levels with mitigation, as described in Chapter 13, Terrestrial Biological Resources; see that chapter regarding impacts of the project on sensitive natural communities including Valley/Foothill Riparian Habitat and Mitigation Measures BIO-2a and BIO-2b. Furthermore, the Compensatory Mitigation Plan would offset permanent and temporary loss of valley/foothill riparian habitat. In addition, Appendix 3B includes Environmental Commitment EC-1 and EC-14, describing protective requirements for all construction and restoration activities in and adjacent to suitable habitat for special-status species and sensitive natural communities. Alternatives were selected in part based on their potential to reduce significant impacts. An alternative location or design modifications to the intakes would not have the potential to substantially lessen or avoid any of the proposed project's significant and unavoidable impacts. Furthermore, CEQA does not require consideration of every variation of every alternative; CEQA requires an EIR to include a reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen one or more of the significant effects of the proposed project. Common Response 3, Alternatives Development and Description, provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. Common Response 3 also provides additional explanation about the range of factors, including environmental and habitat considerations, used to determine intake locations. The purposes and project objectives of the Delta Conveyance Project are presented in Chapter 2, Purpose and Project Objectives.
564-5	GENERAL COMMENTS Study Area Should Include Entire Central Valley Project/State	The EIR impact analyses fully describe and analyze the Delta Conveyance Project's integration into the State Water Project and provides a description of operations and operational criteria in Chapter 3, Description

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	Water Project System Upstream actions are taken to manage Delta water quality as part of operations of the SWP/CVP. The Delta Conveyance project reduces Delta outflows, impacting upstream operations. In-delta diversions are currently managed closely in relation to Old and Middle River reverse flows and salmonid entrainment. These Delta effects change upstream operations. In addition, in the proposed action or action alternatives, north Delta intake operational criteria could result in changes in upstream operations. For example, infrastructure maintenance or clogging of screens could affect sweeping velocities, resulting in reductions in pumping at the intakes, corresponding increases in pumping in the South Delta, and resulting need to increase releases from New Melones Reservoir to maintain water quality requirements per the Bay Delta Water Quality Control Plan. The No Project Alternative and No Project Alternative (2040) show changes in upstream operations as compared to the proposed action and the action alternatives, as there are different upstream reservoir storages (See Appendix 5A, Section B). This shows that in fact, operations upstream of the Delta will	of the Proposed Project and Alternatives. Changes in OMR flows are accounted for in the modeling and therefore considered in the applicable resource area impact analyses. No change to upstream reservoir operational criteria is proposed related to Delta Conveyance Project integration into the SWP system. The CalSim 3 modeling fully depicts the SWP upstream operations assuming the Delta Conveyance Project is implemented and provides results compared to existing conditions. The EIR analyses disclose that with project integration, upstream reservoir storage and releases would change slightly within the current State Water Project operations range and would not result in significant impacts compared to existing conditions. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the selection of the study area(s) evaluated in the EIR. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project proposed operations, which do not include modifications to State Water Project reservoir operations upstream of the project. DWR would not increase storage withdrawal for exports, except flood releases, even though the Delta Conveyance Project may provide additional diversion capacity. The project would not include modifications to Central Valley Project reservoir operations upstream of the project because Reclamation is not a participant in the project. Finally, Appendix 5B, Surface Water 2040 Analysis, and Appendix 6A, Water Supply 2040 Analysis, assess potential upstream changes in 2040.

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	change as a result of the project. End of month storage in Folsom Reservoir, for example, changes from existing conditions as state in Appendix 5A, Page B-31. This CalSim 3 modeling shows some slight (4 TAF) reductions in June and July storage in Folsom Reservoir in Critical Water Years. While these reductions are small, any reduction in summer storage could be a concern due to the already low reservoir elevations in critical years. Low storage results in reductions in cold water pool, affecting the salmon in the American River and reducing inundated area, providing habitat for birds and the riparian forest. There are also substantial changes in Delta flows in Old and Middle River in particular in November under all Project Alternatives according to Appendix 5A, Page B-336. While DWR may not be proposing any additional upstream requirements or goals, operations will change. Therefore, impacts associated with the entire Central Valley Project (CVP)/State Water Project (SWP) system must be analyzed in the document. The Study Area should be expanded to include the entire CVP/SWP as operations of the entire system will change with this substantial new facility online. See also comments below pertaining to climate change.	
564-6	GENERAL COMMENTS Environmental Commitments must be included in the Mitigation Monitoring and Reporting Plan (MMRP):	The Mitigation Monitoring and Reporting Program (MMRP) being prepared by DWR pursuant to CEQA for the Delta Conveyance Project will include all mitigation measures adopted by DWR, including the environmental commitments and best management practices included in Appendix 3B,

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	Table 3B-1 om Appendix 3B summarizes the Environmental Commitments (EC) and links them to the specific impact evaluation of on different resources as to measures that will minimize or prevent adverse impacts. However, the DEIR states that "A narrative discussion in the impact analysis of Chapters 7 through 32 of this Draft EIR considers the ECs and BMPs [Best Management Practices] as part of the project, first without implementation of the ECs and BMPs to determine the significance of the impact and then, as ECs and BMPs are applied, whether the impact has been reduced to less-than-significant level and whether additional mitigation is required." (Appendix 3B, p. 3B-2) However, the same appendix section notes that "The avoidance and minimization features are included in the Mitigation Monitoring and Reporting Plan to enhance implementation tracking, identify the responsible party, and clarify implementation timing." (Appendix 3B, p.3B-1) It appears that ECs and BMPs will not be included within the Mitigation Monitoring and Reporting Plan for the project. Since the ECs are included in the analysis of environmental impacts, and in fact are part of the level of significance determination, they must be included in the MMRP. See comment below under Chapter 9 [comments 20-21], Intake Dewatering Contamination for a specific example. However, their inclusion must be comprehensive and not selective.	Environmental Commitments and Best Management Practices, of the EIR. The MMRP will include specific details regarding the responsible parties, timing, location, and reporting requirements. This has been clarified in Appendix 3B. As stated in Appendix 3B, the environmental commitments and best management practices would be implemented as part of the proposed project and alternatives. Therefore, it is appropriate to consider how those actions would avoid or reduce impacts along with project impacts to reach a CEQA conclusion before implementation of mitigation measures. There is no requirement to evaluate project impacts separate from or prior to consideration of the proposed environmental commitments and best management practices because they are incorporated into and part of the project.

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564-7	GENERAL COMMENTS. Compensatory Mitigation Plan Timing Must Be Included. The Compensatory Mitigation Plan identified in Appendix 3F requires a discussion of implementation timing. Compensatory Mitigation needs to occur concurrently or in advance of the Project impacts.	Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding timing of implementation. Compensatory mitigation, either protection, creation, or enhancement, will stay ahead of the cumulative, permanent suitable habitat loss by 10%.
564-8	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES Water Conservation Should Also Be in Project Alternatives CEQA Guidelines Section 15126.6(e) states that: The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The DEIR's No Project Alternative includes: "projects that would occur in lieu of the project. These assumptions were based on a review of each participating agency's urban water management plan (UWMP)." (Appendix 3C, Page 3C-3) These plans include additional water conservation measures, increased storage, habitat conservation, replacing canals with pipelines, and more. The environmental Groups support considering these effects. However, including them only in the No Project	The comment's assertion that the No Project Alternative leads to an inconsistent or inaccurate comparison reflects a misunderstanding of the No Project Alternative. As described in Chapter 3, Description of Proposed Project and Alternatives, the No Project Alternative includes the possible actions of California water suppliers other than DWR under a long-term scenario in which the Delta Conveyance Project is not approved or implemented. In this scenario, State Water Project supply reliability would be expected to continue to degrade, and water agencies that receive State Water Project supplies would need to take additional actions, beyond what are already underway or in the planning phases, to address local shortages. The No Project Alternative assesses potential impacts related to predicable future actions of water agencies beyond those actions that are already planned. Please also refer to Common Response 4, No Project Alternative Description and Analysis, regarding the analysis of the No Project Alternative. Common Response 4 clarifies that the No Project Alternative under the 2040 scenario is what would reasonably be expected to occur in the foreseeable future if the Delta Conveyance Project were not approved, for comparison to conditions when the project would become operational if approved. Please refer to Appendix 5B, Surface Water 2040 Analysis, for additional discussion. The 2020 No Project Alternative, on the other hand, is identical to existing conditions and is the same timeframe used for the alternatives analyses; it is therefore considered to be the baseline

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	Alternative leads to an inconsistent and biased comparison. Most if not all of the projects included in the No Project Alternative in Table 3-C would occur both with and without the Delta Conveyance Project. They are already underway or in the planning phases. Therefore, to obtain an accurate comparison of with and without the Delta Conveyance Project, these projects should be included in the Project Alternatives as well as the No Project Alternative. As is, this is an inconsistent comparison that is not apples-to-apples and leads to misleading results.	conditions and not separately analyzed for CEQA impacts in the EIR. Please also refer to Common Response 3, Alternatives Development and Description, regarding alternatives suggesting demand management and reducing or eliminating exports. Regarding the comment related to Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, the commenter appears to be referencing inclusion of projects that were considered in the No Project Alternative but not in the cumulative project analysis. Appendix 3C describes the approach to the cumulative impact analysis, consideration of the No Project, and includes a full list of past, present, and reasonably foreseeable projects considered in the table titled Description of Programs, Projects, and Policies Considered for Existing Conditions, No Project Alternative, and Cumulative Impact Analysis. As indicated in the table, all projects considered for the No Project, also were considered in the cumulative project analysis.
564-9	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES Water Conservation in the No Project Alternative Should Result in: Reductions in CVP/SWP Demands in CalSim 3 Secondly, it is unclear what if any changes to water demands have been made in the No Project Alternative as a result of additional water conservation. The DEIR states: "It is acknowledged that water agencies are already exploring these types of actions as outlined in their water management plans. However, the No Project Alternative focuses on the added level of these actions that would be needed in order to replace any water reliability that would be gained through implementation	The EIR correctly includes a consistent water supply level of demand for the No Project Alternative and project alternatives because of uncertainties regarding the effect of water conservation actions assumed under the No Project Alternative and because the population of California is projected to increase in future years, potentially increasing water supply demand in SWP and CVP service areas. This approach also provides consistent assumptions across all of the alternatives to aid in comparisons and avoid speculation.

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	of the Delta Conveyance Project”" (Page 3-70). Despite this statement, the Modeling Appendix 5A does not include any modifications to water supply assumptions based on these projects, and this modeling is used as the hydrologic inputs for the entire rest of the modeling suite. It is unclear what modeling assumptions – reductions in demands - are made to consider additional water conservation in the No Project Alternative, and it appears that none have been applied. This is an inconsistency in the document and either the text or the modeling needs to change.	
564-10	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES Water Conservation Actions from UWMPs Are Few and Do Not Represent a Conservation Alterative Thirdly, water conservation projects are few, inconsistently applied, and do not address a potential water conservation alternative to Delta Conveyance. The Bay Area Regional Desalinization Project (Page 3C-55) is included in the cumulative impacts section, but not in the No Project Alternative. Harvest Water, delivery of tertiary treated wastewater to the Stone Lakes Wildlife Refuge, (Page 3C-62) is included in the No Project Alternative and Cumulative Impacts. The Delta Water Supply Project, where Stockton would divert over 33,000 acre-feet of new water from the Delta and treat it for municipal supplies, is included in Existing Conditions, No Project Alternative, and Cumulative Impacts. City of Antioch Brackish Water Desalinization Project is included in the No Project Alternative and Cumulative Impacts. These four	The State of California Legislature (Legislature) enacted the Urban Water Management Planning Act. The law required an urban water supplier, providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet annually, to adopt an Urban Water Management Plan (UWMP) every 5 years demonstrating water supply reliability in normal, single dry, and multiple dry water years. The original act also required DWR to provide a report to the Legislature on the status of water supply planning in California. The UWMP integrates local and regional land use planning, regional water supply, infrastructure, and demand management projects, as well as statewide issues of concern like climate change and regulatory revisions. In short, the UWMP gathers, characterizes, and synthesizes water-related information from numerous sources into a plan with local, regional, and statewide practical utility. DWR followed CEQA requirements when identifying alternatives to be considered for evaluation in the EIR. As described in Common Response 3, Alternatives Development and Description, CEQA requires lead agencies to develop project objectives to inform the identification of the project and a reasonable range of feasible alternatives. Consideration of every variation of every alternative is not required. The EIR is required to include a

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	projects are the only desalinization projects included in the list, and none of them address a potential future reduction in water demand from the San Joaquin Valley or the Metropolitan Water District service area due to additional water conservation.	reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen one or more of the significant effects of the proposed project. Appendix 3A, Identification of Water Conveyance Alternatives, describes how desalination projects and conservation projects alone do not meet most of the project objectives, and therefore were not analyzed as alternatives in the EIR. Please refer to analyses of the No Project Alternative in Chapter 6, Water Supply, regarding the predictable actions of other water agencies if the Delta Conveyance Project is not approved. This analysis provides information about the potential effect of other water agency projects on regional water supplies and assuming the potential for SWP water supply reliability to decline in future years without the project. Future development of local supplies and conservation do not translate directly into reduced demands for SWP/CVP supplies for a number of reasons, including underlying population growth and potential reductions in other supply sources. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the environmental baseline and the existing conditions assumptions and approach. A detailed discussion on the CEQA baseline is provided in Chapter 4, Framework for the Environmental Analysis, and supporting information can be found in Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions. The Bay Area Regional Desalinization Project, the Harvest Water Project, the Stockton Delta Water Supply Project, and the City of Antioch's Brackish Water Desalination Project are all included in Appendix 3C.

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564-11	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES Habitat Restoration Projects are Inconsistently Applied to the No Project Alternative In addition, Habitat Restoration projects are inconsistently included in the No Project Alternative. For example, Battle Creek, which the according to the DEIR was initiated in 2009, is not included in the Existing Conditions but is included in the No Project Alternative and Cumulative Impacts (Page 3C-69). Klamath Basin Restoration Agreement, which would start construction in 2024, is included in the Cumulative Impacts but not the No Project Alternative (Page 3C-89). Similarly, Prospect Island Restoration, is also included in Cumulative but not the No Project Alternative (Page 3C-93). Including habitat restoration in the Cumulative Impacts but not the No Project Alternative will result in the project artificially improving habitat for species in comparison.	As described for the No Project Alternative in each resource chapter, this analysis focuses on the potential environmental impacts that could occur from water supply infrastructure that may be needed if the Delta Conveyance Project were not implemented. As described in Common Response 4, No Project Alternative Description and Analysis, and Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, the analysis in the EIR assumes that in the absence of the Delta Conveyance Project, participating water agencies would seek to improve local water supply reliability by implementing new water infrastructure projects and water conservation and demand management programs. The Battle Creek Salmon and Steelhead Restoration Project was excluded from existing conditions because it is outside the project footprint of the Delta Conveyance Project. Projects excluded from consideration under the No Project Alternative, such as the Klamath Basin Restoration Agreement, are considered in the cumulative impact analysis in resource chapters because they are not operational in the CEQA baseline timeframe (when the NOP was issued) but would be operating in the future when the Delta Conveyance Project would be operating. The Prospect Island Tidal Habitat Restoration Project is not considered in the No Project Alternative scenario because it is not a predictable action that would be pursued by participating water agencies if the Delta Conveyance Project is not implemented and it is not a project that would be expected to directly affect resources in the Delta Conveyance Project study area under a No Project Alternative scenario. Please refer to Common Response 4 regarding the approach to the No Project Alternative analysis and an explanation of the projects considered under the No Project Alternative versus the cumulative impacts analysis.

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		Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the cumulative impact assessment.
564-12	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES Outreach Materials are Incorrect Related to the No Project Alternative Finally, the "Draft Environmental Impact Report Explained" document is misleading and incorrect. It states that: "The No Project Alternative includes the actions water agencies that receive SWP supplies would need to take to address local shortages if the Delta Conveyance Project was not constructed and the resulting environmental effects of those actions, beyond what water agencies are currently planning." If agencies are not currently planning projects, then they are not reasonably foreseeable as required under CEQA for the No project Alternative. However, what the DEIR describes in Appendix 3C is only projects that are currently in the planning process. DWR's outreach materials are inconsistent with the actual DEIR.	The description of the No Project Alternative in the cited materials is correct. Please refer Common Response 4, No Project Alternative Description and Analysis, for an explanation of the approach to these analyses. Predictable actions by other water agencies under the No Project Alternative are based on the kinds of projects currently in water agency planning documents. The description of the No Project Alternative in the cited materials is correct. Please refer Common Response 4 for an explanation of the approach to these analyses.
564-13	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES EC-4a Should Specify Biodegradable Material and Weed-Free Straw: The Stormwater Pollution Prevention Plan (SWPPP) Best Management Practice, described on Page 3B-8, states: "Erosion control may not utilize plastic monofilament netting or similar	The text of Environmental Commitment EC-4a has been revised to clarify the types of materials that would be used for erosion and sediment control. Additionally, Environmental Commitment EC-14 provides a list of acceptable substitutions for monofilament netting. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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	materials." Instead, the BMP should require contractors avoid using plastic for erosion or sediment control, and only use biodegradable materials. In addition, only weed-free rice straw should be used for fiber rolls, straw wattles, or mulching. Otherwise, invasive species may spread on site due to erosion control straw and/or seeds, and this would be an additional impact.	
564-14	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES EC-4b Should Specify Hourly Turbidity Sampling Schedule: The DEIR states that: "If the [Qualified Stormwater Practitioner] (QSP) determines the site is Risk Level 2 or 3, water sampling for pH and turbidity will be required and the SWPPP will specify sampling locations and schedule, sample collection and analysis procedures, and recordkeeping and reporting protocols" (Page 3B-15). While only daily monitoring is required for compliance with the Construction General Permit, we suggest the project employ hourly monitoring for turbidity given the large nature of the project's construction areas, as well as the COLD, SPWN, and MIGR beneficial uses of the Sacramento River nearby (i.e. cold water, spawning and migratory fish use, shown on Page 9-7), which result in a Risk Level 2 or 3 for purposes of the SWPPP. Hourly monitoring for turbidity is also commonly required for habitat restoration projects as part of the CDFW 1602 Lake and Streambed Alteration Agreement permit. Hourly monitoring would allow the contractor to stop construction if turbidity exceeds allowable limits and quickly react to minimize impacts.	DWR will comply with details of the approved Stormwater Pollution Prevention Plan (SWPPP) as determined by the regulatory agencies. No changes to the EIR text in Appendix 3B, Environmental Commitments and Best Management Practices, have been made.

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564-15	CHAPTER 3: DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES EC-14 should include Measures for Tree Removal to Avoid Nesting Birds: The DEIR describes how the project will include biological conservation measures including work windows, non-disturbance buffers, and an on-site biological monitor. However, the DEIR does not include in this Best Management Practice any measures for tree removal timing in relation to nesting birds. The project should include a requirement that any tree removal occurs prior to February 1, to avoid impacts to nesting birds. Otherwise, the document should include the impacts of tree removal on nesting birds in the CEQA document.	Chapter 13, Terrestrial Biological Resources, addresses measures to avoid nesting birds in Mitigation Measure BIO-36a, which specifically identifies that construction, vegetation removal, and trimming should be scheduled during the non-breeding season (September 1 through January 31) to the maximum extent feasible. Mitigation Measure BIO-36a also includes preconstruction surveys, no disturbance buffers, and monitoring.
564-16	CHAPTER 5: SURFACE WATER San Joaquin Water Resources Must Be Included in Impact Analysis The DEIR does not include San Joaquin River watershed results or analysis in the document. Modeling results are presented for the San Joaquin River at Vernalis, in the Delta (Appendix 5A, page B-279), but no potential effects on the Stanislaus River system and New Melones Reservoir are considered. This is in error. The Delta Conveyance Project will require modifications to the combined CVP/SWP operations to rebalance for Delta water quality and salinity requirements under D-1641. New Melones Reservoir is the only reservoir that can make releases to decrease South Delta water quality. While the project should in general improve South Delta water quality at the	Please see Common Response 9, Hydrologic Modeling and Approach, regarding the geographic extent of the CalSim 3 modeling effort. As summarized in Chapter 5, Surface Water, the project is not expected to affect reservoir storage or river flows within the San Joaquin River watershed, including the New Melones Reservoir on the Stanislaus River. As such, there would be no expected changes to the conditions of environmental resources within the watershed. The project operations do not conflict with the operational criteria at any San Joaquin River and tributaries water storage facilities. The existing reservoirs and other facilities in the San Joaquin River watershed do not operate to meet in-Delta water supply or water quality purposes, and operations would be unchanged with the project. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for further discussion regarding the selection of the study area. Regarding north Delta water quality, as described in Chapter 9, Water

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	expense of North Delta water quality when the North Delta diversions are running, this would result in shifts in the timing of releases from the Stanislaus River, which would affect releases elsewhere in the combined CVP/SWP water operations system. The effects should be analyzed so the public can evaluate any changes, whether beneficial or detrimental.	Quality, the project alternatives would not affect surface water quality in the reservoirs and rivers upstream of the Delta. This conclusion is supported by modeling output in Appendix 5A, Modeling Technical Appendix, and analysis included in the Upstream of Delta Water Quality Analysis technical memorandum, which is part of the EIR administrative record, showing little to no change in upstream reservoir storage and river flows. Where some changes were modeled to occur (Oroville Reservoir and Feather River), those changes would not affect upstream water quality. Please refer to Common Response 1 regarding the scope of the study area evaluated in the EIR for different resources. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which does not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Finally, please refer to Common Response 9, Hydrologic Modeling and Approach, regarding modeled representation of upstream effects and operations criteria. Please see Common Response 1, describing the scope of upstream screening assessment and the limited effects on hydrology and thus fish upstream of the north Delta intakes. Given the above, the evaluation of potential water quality changes and impacts is adequate and based on substantial evidence presented in the EIR. The record and provides sufficient disclosure of the lack of impacts upstream for decision makers to understand.
564-17	CHAPTER 5: SURFACE WATER South of Delta Storage Impacts Must Be Considered The document doesn't appear to consider effects of changes in South of Delta storage. However, operation of the North Delta diversion increases river flows in winter/spring due to increased diversions during this time and reduced diversions during summer/fall. This results in changes in timing of deliveries south of the Delta. Since water supply goes to	The analysis contained in the EIR is not consistent with the assertion by the commenter that changes in South of Delta storage were not considered. Please refer to the Project Alternatives section of Chapter 5, Surface Water, and the table titled Changes to San Luis Reservoir Total Storage under the Project Alternatives for a description of changes to San Luis Reservoir storage under the project alternatives. Please refer to Appendix 5A, Section B, Modeling Technical Appendix – Hydrology and Systems Operations Modeling, for modeling data specific to changes in San Luis Reservoir storage.

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	agricultural as well as M&I uses south of the Delta, timing of demand will not match exactly to timing of deliveries. This requires storage. Changes in reservoir operations at San Luis Reservoir of [sic] South of the Delta could have impacts to water supply, fish, and recreation south of the Delta, including to Contra Cost[a] Water District, Santa Clara Valley Water District and Metropolitan Water District reservoirs in Southern California. These impacts should be discussed in the document.	Please refer to Chapter 3, Description of the Proposed Project and Alternatives, regarding operational criteria, real-time operational decision-making, and adaptive management. As described in the Intake Operations and Maintenance section of Chapter 3, the operation of the project would be governed by the existing regulations, operational rules, and water supply allocation procedures associated with SWP and CVP operation. The modeling incorporates limitations associated with existing south-of-Delta storage infrastructure. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding a discussion of Chapter 5, Surface Water, and Chapter 6, Water Supply, and the evaluation of water-dependent resources throughout the EIR. Please refer to Chapters 12, Fish and Aquatic Resources, and Chapter 16, Recreation, regarding an analysis of environmental impacts and proposed mitigation measures on these resource areas.
564-18	CHAPTER 8: GROUNDWATER Construction Groundwater Quality Effects Are Not Analyzed The DEIR analyzed and has included a Mitigation Measure to mitigate reductions in local groundwater wells as a result of dewatering, including potentially injecting potable water and/or deepening existing wells. However, the DEIR has not analyzed the effects of construction on groundwater quality. While drilling the new Delta Conveyance, what pollutants could be discharged to groundwater? This impact must be considered in the EIR.	The potential for project construction activities to result in groundwater contamination is addressed in Chapter 25, Hazards, Hazardous Materials, and Wildfire, under Impact HAZ-1. Additionally, groundwater removed with the dewatering system would be treated as necessary, stored, and reused for water supply on-site (see Chapter 3, Description of the Proposed Project and Alternatives). If the total volume of on-site water flows, including treated dewatering flows, exceed the on-site storage and water demands, water would be discharged in accordance with the Stormwater Pollution Prevention Plan described in Appendix 3B, Environmental Commitments and Best Management Practices. Use of slurry walls to minimize dewatering flows would minimize the volume of water to be removed from the groundwater and isolate groundwater under the construction site from water in the adjacent groundwater aquifer, as described above and in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022f, 2022g). If dewatering activities result in a substantial reduction in groundwater elevations outside of the

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		intake construction sites, the treated water would be re-injected into the groundwater; however, the level of treatment would be designed to be compatible with existing groundwater quality. As such, there would be no adverse effects. As disclosed in Chapter 8, Groundwater, in the discussions of Impacts GW-1, GW-2, and GW-3, construction-related dewatering would not result in a significant impact on groundwater storage or wells. Mitigation Measure GW-1 would further reduce less-than-significant impacts and allows DWR to monitor and address unanticipated changes in groundwater levels. Common Response 10, Surface Water Quality and Groundwater Resources, includes a detailed discussion on the analysis of groundwater quality during construction, which provides additional information regarding how groundwater quality was addressed in the EIR.
564-19	CHAPTER 8: GROUNDWATER The Potential Contamination of Groundwater Due to Tunnel Boring Operations Is Not Analyzed The tunnel boring machines involve the application of a solution involving undisclosed chemicals to facilitate earth boring, with the potential for the contaminated water to collection in the tunnel shaft and seep into the underlying aquifer. We have not identified any discussion in the DEIR of this potential impact and its mitigation. This potential impact must be addressed.	Tunnel boring methods are described the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022f, 2022g). During boring operations, water and chemical conditioners would be added at the cutter face of the TBM to alter the plasticity of the soil so that the RTM could flow more readily through the TBM cutter face and into the conveyor system for transport of the RTM out of the tunnel. A highly biodegradable conditioner made of all-natural materials would be specified for the Delta Conveyance Project. Use of these soil conditioners in the tunneling process would not pose a risk to human health, wildlife or the environment provided standard procedures are followed. These procedures will be included in contract documents, enforced by DWR.
564-20	CHAPTER 9: WATER QUALITY Stormwater Runoff and Dewatering Contamination Mitigation Is Inadequate The DEIR identifies the following Environmental Commitment EC-3 to ensure that "all stormwater runoff and dewatering	Please see response to comment 564-6 regarding incorporation of environmental commitments in the Mitigation Monitoring and Reporting Program related to stormwater runoff. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the preparation and implementation of a Mitigation Monitoring and Reporting Program.

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	water generated at construction sites would be collected, treated, and stored on-site for reuse. Decant water from reusable tunnel material also would be collected and treated for direct on-site reuse or on-site storage. If treated stormwater, dewatering water, or decant water amounts exceed the on-site reuse demand or storage capacities, the water would be discharged into adjacent waterbodies in compliance with construction NPDES permits issued to DWR by the Central Valley RWQCB”" (Chapter 9, Water Quality, Page 9-44). However, the introduction to Appendix 3B does not include ECs as part of MMRPs [Mitigation Monitoring and Reporting Plans] and does not provide the additional assurances that this mitigation will be implemented. This exemplifies a significant oversight of the DEIR and must be corrected. Please see comment, Environmental Commitments Must Be Included in MMRP’s under General Comments above.	
564-21	CHAPTER 9: WATER QUALITY Electrical Conductivity Increases Resulting from Upstream Reservoir Releases Are Not Analyzed During the late spring, summer, and fall—when the SWP and CVP are typically operating to meet salinity requirements in the Delta—both the existing south Delta intakes and the proposed north Delta intakes would be operated together. Use of the proposed north Delta intakes, particularly in July through December, can be used to reduce carriage water requirements, which are necessary to move exports through the South Delta when salinity requirements are controlling. This is a benefit for water supply and water transfers. However, these carriage	As described in Chapter 9, Water Quality, potential increases in salinity-related parameters bromide (Impact WQ-3), chloride (Impact WQ-4), and electrical conductivity (EC) (Impact WQ-5) due to project operations would occur primarily in the late fall and winter months, not in the late-spring through early-fall months when the project would be operated to meet Bay-Delta Water Quality Control Plan objectives per State Water Board Decision 1641. Chapter 5, Surface Water, presents analysis of changes in upstream reservoir storage. Modeling results show that storage changes would be minimal and changes would primarily be associated with increases due to lower releases for exports and carriage water. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project operations, which does not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Please see Appendix 3H,

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	water requirements are an extra buffer to ensure salinity requirements are met. The DEIR notes: "Carriage water refers to the additional Delta outflow required to maintain Delta water quality for an additional unit of export at south Delta facilities and offset the degradation to water quality. Carriage water costs (or savings) occur when compliance with D-1641 water quality objectives is controlling Delta operations”" (Appendix 5A, page B-63). This reduction in carriage water results in increases in salinity in the Delta. DEIR analysis shows potential increases in bromide, chloride, and EC in some locations (Page 9-4). The proposed project, Alternative 5, includes the highest increase in electrical conductivity. Combined, they show that the proposed project is likely to increase the Delta salinity. This will require the CVP and/or SWP to release additional water from upstream reservoirs in certain times of year to meet the Delta water quality requirements established by the SWRCB in the Bay-Delta Water Quality Control Plan. Those additional upstream water releases will result in impacts in the upstream watersheds, including the Sacramento and American and Feather Rivers. These impacts must be evaluated in the EIR.	Non-Project Water Transfer Analysis for Delta Conveyance, regarding the potential use of the north Delta intakes to transfer water. As described in this appendix, the purpose of carriage water is to maintain water quality conditions in the Delta, as measured by salinity, to be the same as if the water transfer had not occurred. With either diversion location (proposed north Delta intakes or existing south Delta), the SWP would still release “carriage water” to manage water quality in the Delta. Carriage water is the amount of Sacramento River inflow required to maintain water quality conditions in the Delta in the absence of a water transfer, and it is typically a portion of the water made available by the seller. Carriage water would maintain similar water quality conditions in the Delta regardless of transfer diversion location.
564-22	CHAPTER 9: WATER QUALITY Construction Related Mercury Releases Are Not Analyzed The mercury assessment utilizes DSM2 Delta modeling of water volumes, and then applies mercury concentrations according to the mass balance from the DSM2 modeling. The DEIR correctly states that: “Mercury methylation occurs under anoxic conditions in sediments, flooded shoreline soils, and to a lesser degree, in the water column. Increased methylmercury	Chapter 9, Water Quality, Impact WQ-1 (construction) identifies in-water work as having the potential to impact water quality. Impact WQ-1 also describes how dewatering water discharged to surface water bodies adjacent to construction sites would be treated prior to discharge. Furthermore, discharges would be in compliance with applicable laws and permits, including those issued by the Central Valley Regional Water Quality Control Board. For these and other reasons provided in Impact WQ-1, including implementation of environmental commitments, construction activities would not substantially degrade water quality or adversely affect beneficial uses.

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	is also associated with wetting and drying cycles" (Chapter 9, Water Quality, Page 9-113). Construction activities could result in buried mercury or methylmercury being exposed to the water column and again available for bioaccumulation if there are leaks from construction site dewatering. This potential impact must be evaluated in the EIR.	
564-23	CHAPTER 9: WATER QUALITY Reduction of Sacramento Regional Sanitation District Treatment Plant Dilution Reduction Under the Project Are Not Analyzed During the winter and spring, when there are excess flows in the system, the proposed north Delta intakes would be used to capture additional excess flows when South Delta exports are limited and unable to capture those flows. The project modeling shows decreases in Sacramento River flows below Sacramento Regional Sanitation District Wastewater Treatment Plant particularly in July, August, and September (Appendix 5A, page B-151). Any pollutants, including wastewater such as discharge from the Regional Wastewater Treatment Plant, that flow into the Sacramento River downstream of the north Delta intakes would have lower dilution factors, and therefore higher concentrations leading to human and/or fish and wildlife toxicity impacts in the lower Sacramento River and Delta. Pollutants such as E. Coli must be included in the impact analysis.	The Sacramento Regional Wastewater Treatment Plant (SRWTP) outfall near Freeport is upstream of the project intake locations near Hood. As described in response to comment 564-21, Delta Conveyance Project operations do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Chapter 5, Surface Water, presents analysis of changes in Sacramento River basin river flow rates. Modeling results show that river flow rates in the Sacramento River at Freeport would be similar to those under baseline existing conditions. Therefore, project operations would have minimal effect on the dilution of the SRWTP discharge to the Sacramento River at Freeport. Moreover, the north Delta intakes are located more than 3 miles downstream of the SRWTP outfall. Hence, complete effluent mixing with river flow has occurred by the time SRWTP discharges enter the downstream reach where the intakes would be located. Concentrations of pollutants in the river that originate from the SRWTP discharge at and downstream of the intakes are at concentrations protective of beneficial uses, as required by NPDES permits regulating the discharges to surface waters. Diversion of a portion of the flow via the north Delta intakes would not change this.
564-24	CHAPTER 9: WATER QUALITY Flood Flow Reduction Impacts Are Not Analyzed	Chapter 9, Water Quality, addresses effects of project operations on total suspended solids and turbidity of study area waterbodies. As described in the section titled Impacts of the Project Alternatives on Water Quality,

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	Sacramento River flows at Hood downstream of the north Delta intakes decrease in November through March in most water year types (Appendix 5A, page B-161). This reduction in flood flows will result in less dilution of turbidity from natural runoff events, and reduction in the amount of high velocity flows that disturb microsystis formation. This results in decreases in Delta outflows in winter through early summer (Appendix 5A, page B-325 through 332), with large changes in the exceedance probability in June and July (Appendix 5A, page B-326). These need to be Identified.	project operations would not affect water quality of the rivers upstream of the Delta, including total suspended solids (TSS) and turbidity levels. Furthermore, as described in Impact WQ-13 (TSS and turbidity), it is the high runoff events that contribute to the high TSS and Delta sediment load, which will not change substantially for project operations, relative to existing conditions. Regarding Microcystis, as described in Impact WQ-14, the June through November period is considered the period for cyanobacteria harmful algal blooms (CHABs) in the Delta; however, peak cyanobacteria typically occur from July through October, which is outside of the November through March period of concern identified in the comment. DSM2 channel velocity modeling was conducted as part of the CHAB assessment for the period of June through November. There were negligible changes in velocity under the project alternatives at all locations and in all months assessed, relative to existing conditions.
564-25	CHAPTER 9: WATER QUALITY Cyanobacteria Harmful Algal Bloom Analysis Must Include the Month of May Short residence times and high-water velocities reduce the formation of microcystis, which causes harmful cyanobacterial algal blooms (CHAB). The DEIR analyzes water temperatures and velocity to evaluate the effect of microcystis formation. The document states that, “CHABs typically form in the Delta from July through November (Lehman et al. 2020:4)” (Appendix 9E, page 9E-8). In some years, however, CHABs can form as early as May or June if temperatures are sufficiently warm (Lehman et al. 2017:103)” (Appendix 9E, page 9E-8). However, the CHAB analysis focuses on June through November. Due to the potential for CHABs in May, together with warmer Mays in a climate impacted future, the analysis must include the earlier month as well.	June through November is the focus of the CHABs analysis in Chapter 9, Water Quality, Impact WQ-14 because these are the months that encompass when problem-level blooms typically occur, as discussed in Chapter 9, Impact WQ-14 and Appendix 9E, Cyanobacteria Harmful Algal Blooms. Currently problem-level blooms begin in July. The technical memorandum cited in Chapter 9 and Appendix 9E synthesized visual Microcystis observation data from three monitoring programs collected between 2007 and 2019. This is the largest and most comprehensive Microcystis dataset available for the Delta. Based on synthesis of this data in different regions of the Delta Microcystis are most frequently in the water column from June through November and problem level blooms are most likely to occur from July through September. As such the data synthesis in the technical memorandum supports the June through November assessment period. The EIR uses site-specific residence time as modeled directly using DSM2 in combination with modeled temperature, modeled velocity, an assessment of nutrients, and irradiance to assess the impacts of the project alternatives on CHABs during the June

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	The analysis shows some reductions in velocity as a result of the project in Victoria Canal (Appendix 9E, page 9E-71). There are also some increases in residence time in certain locations as a result of the project (Appendix 9E, page 9E-98). The DEIR concludes this reduction is negligible (Chapter 9, page 9-156). However, this is a discernable impact.	through November period. Based on these assessments the project alternatives would not result in increased bloom severity or extent in any of these months at any Delta location, relative to existing conditions. While we anticipate climate change-related increases in Delta water temperature at 2040, it is uncertain that problem-level blooms will occur earlier in the year. As described in Appendix 9L, Water Quality 2040 Analysis, project alternatives would not result in increased bloom severity or extent, relative to the No Project Alternative.
564-26	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GENERAL COMMENTS The DEIR Mitigation for Listed Terrestrial Species Is Not Consistent with CEQA Guidelines and DFW Requirements The mitigation proposed in this DEIR conflict is inconsistent with CEQA Guideline 15126.4(a)(1)(B) for all of the vertebrate terrestrial species covered in Chapter 13. Similarly, the requirement for getting a 2081 incidental permit pertains to covered vertebrate terrestrial species in this DEIR and there needs to be a commitment in this DEIR to obtain an incidental permit for all of the covered vertebrate terrestrial species that will be impacted by this project. Finally, the DEIR fails to state enforceable method/s for conserving in perpetuity the lands for mitigation for loss of the covered vertebrate terrestrial species' foraging habitat, as well roosting and nesting habitat where applicable. Please see comments below pertaining to Swainson's Hawk for additional detail.	The analysis contained in the EIR does not support the assertion by the comment that the mitigation for terrestrial species is not consistent with CEQA guidelines and CDFW requirements. It is not clear what aspect of CEQA Guideline 15126.4(a)(1)(B) the commenter is referring to, but the mitigation measures developed to address impacts on terrestrial biological resources comply with the requirements of CEQA. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the use and incorporation of mitigation measures; please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for discussion of mitigation measures for terrestrial biological resources. Also, as described in Chapter 1, Introduction, DWR will comply with state endangered species laws by obtaining an Incidental Take Permit from CDFW for the project under Section 2081(b) of CESA. Please see Common Response 1 for a discussion of project approvals, permitting processes, and other required actions. Regarding conserving lands for mitigation in perpetuity, as described in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, in the section titled Financial Assurances, all lands protected and restored for compensation of impacts from construction and operation of the project on aquatic resources and special-status species, as

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		appropriate and consistent with the specific mitigation, would be protected and managed in perpetuity.
564-27	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GENERAL COMMENTS Mitigation Ratios Based on Thresholds After Mitigation Are Inadequate The loss of habitat is a critical component for the listing of covered vertebrate terrestrial species. Conserving habitat at 1:1 or other mitigation ratio level does not make up for the habitat that was lost. At a 1:1 ratio, for every acre conserved there is an acre lost, and it is this ongoing loss of habitat that makes the impacts to all of the covered vertebrate terrestrial species significant and unavoidable. This DEIR needs to change its significance findings for all covered vertebrate terrestrial species impacted by the loss of habitat to "significant and unavoidable."	Mitigation ratios have been added to Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources. These ratios vary by land cover type and habitat type and have been developed in coordination with agencies, including CDFW and USFWS, through other regulatory processes. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit. The conservation of grassland and management of cultivated lands at a 1:1 ratio is a mitigation approach commonly used for impacts on those land cover types for approved projects in this region. The protection and management of grassland and cultivated lands benefits multiple species by ensuring these lands are managed to provide high-value habitat in perpetuity. The analysis in Chapter 13, Terrestrial Biological Resources, does not support the commenter's assertion that the significance findings for vertebrate terrestrial species should be revised to significant and unavoidable because, as described in this response, the mitigation ratios are developed in coordination agencies and represent a mitigation approach that reflects commonly used ratios for approved projects in this region. Also, for a discussion of the adequacy of mitigation measures, please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan.
564-28	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES SWAINSON'S HAWK The DEIR analysis conflicts with California Department of Fish	The analysis contained in the EIR does not support the assertion that the project defers mitigation and conflicts with CEQA Guideline 15126.4(a)(1)((B). Please refer to Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for a description of the adequacy of mitigation for the proposed project. In regard to the

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	and Wildlife Guidelines for Swainson's Hawks. Background Information: The California Department of Fish and Wildlife ("CDFW") performed a Status Review titled "Swainson's Hawk (Buteo swainsoni) in California (Reported to California Fish and Game Commission) 2016 Five-Year Status Report" that states: (T)he Department recommends retaining the Threatened classification for this species based on the following: -On-going cumulative loss of foraging habitats throughout California -Significantly reduced abundance throughout much of the breeding range compared to historic estimates -An overall reduction in the hawk's breeding range in California. (CDFW Status Report at p. 4.) Critical to CDFW's review was the finding that "[t]he primary threat to the Swainson's Hawk population in California continues to be habitat loss, especially the loss of suitable foraging habitat, but also nesting habitat in some portions of the species' breeding range due to urban development and incompatible agriculture" (CDFW Status Report at p. 3). The report specifically notes that "[t]he lack of suitable nesting habitat throughout much of the San Joaquin Valley, due to conversion of riparian systems and woodland communities to agriculture, also limits the distribution and abundance of Swainson's Hawks (California Department of Fish and Game 1993)." (Id. At p.4).	Department of Fish and Game guidance on Swainson's hawk mitigation cited by the commenter (Staff Report Regarding Mitigation for Impacts on Swainson's Hawk in the Central Valley of California, California, Department of Fish and Game, November 8, 1994), as stated in the guidance, "either the mitigation measures in the staff report may be used or project specific measures may be developed" (California Department of Fish and Game 1994:1). Swainson's hawk mitigation for the EIR was developed in coordination with the California Department of Fish and Wildlife through other regulatory processes. The Compensatory Mitigation Plan (Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources) includes mitigation commitments for Swainson's hawk nesting and foraging habitat and has been updated through coordination with CDFW to include mitigation ratios for impacts on Swainson's nesting and foraging habitat, which will be used to calculate the number of acres to be conserved in perpetuity based on the project alternative that is selected. Please see Attachment 3F-1, Compensatory Mitigation Design Parameters, for the commitment regarding Swainson's hawk foraging habitat mitigation and for a description of suitable nest site replacement, the compensation for suitable nest trees, and the associated performance standards, success criteria, and monitoring requirements. The information in the EIR does not support the assertion that the EIR fails to commit DWR to obtaining an Incidental Take Permit. As described in Chapter 1, Introduction, DWR will comply with state endangered species laws by obtaining an Incidental Take Permit from CDFW for the project under Section 2081(b) of the California Endangered Species Act. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of project approvals, permitting processes, and other required actions. Regarding the assertion that the EIR defers impact and mitigation details,

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	CEQA Guideline 15126.4(a)(1)((B) states (with emphases added): Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure. The Delta Conveyance DEIR conflicts with this guideline. The DEIR lists as a reference the Department of Fish and Game guidance on Swainson's Hawk mitigation (Staff Report Regarding Mitigation for Impacts on Swainson's Hawk in the Central Valley of California, California, Department of Fish and Game, November 8, 1994), but does not refer to those guidelines, much less commit to them, in its description of compensatory mitigation. It fails to commit to mitigation, including a mitigation ratio, a number of acres to be conserved in perpetuity, and a number of trees to be replaced. It fails to disclose the specific performance standards to be used for Swainson's Hawk impact mitigation. The DEIR fails to commit DWR to obtaining a 2081 take permit for impacts to Swainson's Hawk of the project, nor does it require that its mitigation plans be approved by California Fish and Wildlife. The project cannot guarantee that it has reduced	Chapter 13, Terrestrial Biological Resources, presents the range of impacts on modeled Swainson's hawk habitat by alternative before mitigation and the CEQA findings after mitigation. Proposed mitigation for impacts on Swainson's hawk are presented in Impact BIO-39, in the CMP in Appendix 3F, and in Attachment 3F-1. Please also refer to Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for an explanation of the methods and approach to the impact analysis described in Chapter 13, why Chapter 13 presents a conservative estimate of potential impacts, and why the mitigation measures in Chapter 13 and Appendix 3F are not deferred and meet the requirements of CEQA. DWR has committed to provide mitigation for impacts on Swainson's hawk habitat through the CMP (Appendix 3F), which describes that mitigation will be implemented through a conservation easement or another site protection instrument, subject to CDFW approval, and will be managed to provide suitable habitat and monitored in perpetuity. Furthermore, the CMP includes the commitment that DWR will ensure appropriate long-term funding for mitigation and designation of the party or entity responsible for long-term management of the mitigation lands. Regarding the consistency of the Swainson's hawk mitigation in the CMP with CDFW's model easement, the mitigation for Swainson's hawk foraging habitat described in CMP-19b requires the management of mitigation lands in crop types that provide suitable foraging habitat for the species and does not permit orchards or vineyards or other non-suitable crop types on the Swainson's hawk mitigation lands. Regarding the disclosure of mitigation ratios and the number of acres of mitigation lands to be acquired for Swainson's hawk foraging habitat, Appendix 3F has been updated to provide the ratio of compensation for impacts. The number of acres to be acquired for mitigation will depend on the project alternative that is selected. As described above, Chapter 13

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	its impact on Swainson's Hawk to less than significant if it does not apply for a 2081 take permit and comply with the guidelines and conditions set by CDFW. This is a critical oversight, and must be corrected. The DEIR inadequately defers until after the permitting process the impact and mitigation details required to be disclosed to the public in the DEIR. The DEIR states: The detailed restoration design work and management planning, which will include fully detailing performance standards, monitoring methods, and adaptive management actions, will occur between the project permitting phase and project completion. Other mitigation actions, including bank credit purchases and habitat protection, will also occur between permitting and project construction completion. To inform the mitigation planning process between permit issuance and mitigation land construction or preservation, DWR will prepare Draft and Final Habitat Mitigation Plans for affected species and wetlands. Compensatory mitigation would be secured in phases in accordance with the progress of construction. (p.3F-16) The DEIR fails to state enforceable methods for conserving in perpetuity the lands for mitigation for loss of Swainson's Hawk foraging habitat. CEQA requires that mitigation measures be capable of enforcement. Mitigation for loss of foraging habitat requires that a conservation easement held by a credible conservation manager, including an endowment for the permanent enforcement and monitoring of the habitat mitigation easement. Typically, the easement will be recorded prior to the issuance of a grading permit or prior to any grading, grubbing	presents the range of impacts on modeled Swainson's hawk habitat by alternative that would require mitigation. Regarding the timing of acquisition of mitigation land and the assertion that the EIR would allow the mitigation land to be acquired at some unspecified time after the project is completed, or possibly never, the CMP (Appendix 3F) has been revised to clarify the "stay ahead" requirements for the timing of compensation. These stay ahead requirements are also discussed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit. Regarding the location of compensatory mitigation for Swainson's hawk foraging habitat in relation to project impacts, the mitigation described in CMP-19b has been developed with CDFW through other regulatory processes. DWR has been coordinating with CDFW regarding permitting conditions, terms, and requirements, including the mitigation described in CMP-19b, and will continue to coordinate with CDFW. Regarding the adequacy of the elevation requirements for protected Swainson's hawk foraging habitat, CMP-19b has been revised to more clearly state that if compensation lands for Swainson's hawk are located at elevations lower than -1 foot NAVD88, levees would be maintained around protected habitat, which would protect the lands from flooding. With the added protection of levee maintenance, the mitigation habitat would be adequate for the species. Chapter 13, in the table titled Comparison of Impacts on Terrestrial Biological Resources by Alternative (acres/CEQA findings after mitigation),

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	or disturbance of soil. To ensure that mitigation achieves the less than significant impact threshold, both the conservation easement and the conservation operator should be approved by CDFW. Deed restrictions would not meet the criteria for enforceable mitigation and the Environmental Groups do not believe they have been used for Swainson's Hawk conservation in California. CDFW has a model easement that can be utilized with willing agricultural landowners. The Swainson's Hawk foraging habitat easement differs from an agricultural land conservation easement primarily in the addition of restrictions against orchards and vineyards and other crop types that interfere with foraging. Although CMP-19b states that "Mitigation acres will be provided for all acres of habitat lost in the very high, high, medium and low value classes," it does not disclose the mitigation ratio or the number of acres to be acquired for mitigation, or the instrument for restricting uses. CDFW SWHA mitigation standards, and those of local ordinances and habitat conservation plans, generally require that mitigation for loss of any SWHA foraging habitat be at a ratio of 1:1, that the mitigation lands be protected in perpetuity by conservation easement or fee title, that a conservation manager be approved by CDFW and permanently endowed, include crop restrictions, and that mitigation lands be within 10 miles of the area impacted by the Project. The DEIR has none of these requirements. The project mitigation measure would allow a much smaller mitigation ratio. The EIR states that mitigation measures will be developed during the permitting process, but fails to state when the mitigation land, whether easements or	presents the range of impacts on modeled Swainson's hawk habitat by alternative before mitigation and the CEQA findings after mitigation. The EIR commits to compensation for impacts on Swainson's hawk habitat through the CMP. Chapter 13 presents the range of impacts on modeled Swainson's hawk habitat by alternative, avoids and minimizes impacts through Mitigation Measure BIO-39, and commits to offsetting the loss of Swainson's hawk nesting and foraging habitat through the CMP. Therefore, the information and commitments in the EIR support the conclusion that the mitigation will reduce the impact of the project on Swainson's hawk to less than significant. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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	fee title, will be acquired. The EIR mitigation measure would inappropriately allow the mitigation land to be acquired at some unspecified time after the project is completed, possibly never. According to the DEIR, mitigation lands also could be located many miles distant from the area impacted by the project, and thus of little to no value to the population of hawks impacted by the project. CMP–19b expressly states "Foraging habitat will be protected within 3 miles of a known Swainson's hawk nest tree and within 50 miles of the project footprint." Protection of foraging lands more than 10 miles from the project impact will have no beneficial impact to the nesting pairs in the project area and will not contribute to their reproductive success. This is because Swainson's Hawks establish their nests adjacent to their foraging grounds and rely on feeding close to the nest. While the (mostly male) birds do occasional fly longer distances to feed during harvesting or flood events, they can't rely on utilizing long distance feeding grounds to provide for and recruit young into the population. If adults must hunt long distances from the nest site, the additional energy required may result in reduced nesting health and greater mortality. (Brian Woodbridge, Biology and Management of Swainson's Hawk in Butte Valley, California; US Forest Service Report, 19pp, 1985). The California State Department of Fish and Wildlife has thus established a ten-mile standard, which is the "flight distance between active (and successful) nest sites and suitable foraging habitats, as documented in telemetry studies (Estep 1989, Babcock 1993)." (California Department of Fish and Game, Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California, 1994). The Department of Fish and Wildlife further	

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	detailed and reinforced the ten-mile standard in a letter to the City of Elk Grove (January 12, 2018): In order for CEQA Lead Agencies to lessen impacts to SWHA foraging habitat to below a level of significance, mitigation lands used to offset impacts must be located in a biologically supportable distance from the impact site. In addition to the [City of Elk Grove's] Swainson's Hawk Code, many biological consultants and mitigation bankers have expressed that this distance is, or should be 10 miles. An accurate and biologically supportable distance to use when establishing a service area should consider the home ranges and core use areas used by both males and females. Therefore, providing additional protected foraging habitat for other nesting pairs, not affected by the project, will not address impacts to the population affected by the project, and will not reduce its impact on the reproductive success and range of the species. CMP-19b states that "Where feasible, protected foraging habitat will have land surface elevations equal to or greater than minus one-foot NAVD88 or will maintain levees around protected habitat, to minimize the risk of flooding and loss of suitable habitat due to future sea level rise." The Environmental Groups do not believe this level would protect habitat from flooding. Nor does the DEIR provide evidence to the contrary. Elevation at or below sea level is not considered suitable for SWHA nesting and foraging habitat due to exposure to potential flooding. The DEIR states that "The unmitigated impact on SWHA ranges	

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	from 1800 acres in Alt 5 to a high of 3400 acres in Alt 2A. This is considered less than significant impact. (Table 13.0)." The Environmental Groups are concerned this statement is ambiguous. The DEIR must clarify if this number represents the number of acres impacted by the project before mitigation is acquired, or if this is the number of acres left unmitigated after mitigation is acquired. If there are 1800 to 3400 acres of foraging habitat that will not be mitigated, the project impacts have not been mitigated to less than significant. If these numbers represent the acre impact, then the DEIR should commit to 1800 to 3400 acres of mitigation for loss of foraging habitat, depending on the alternative chosen. For these reasons, the Environmental Groups oppose the DEIR, and disagree with its claim that the mitigation will reduce the impact of the project on Swainson's Hawk to less than significant.	
564-29	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES PEREGRINE FALCON The Peregrine Falcon Was Not Included in Impacts Analysis, AMMs, or Mitigations. The Peregrine Falcon is a California Fully Protected Species that can be found throughout the project area, but it was not included in the impact analyses in this DEIR. The Peregrine Falcon routinely ingests shorebirds when near wetland areas, but there was no discussion of the possible impacts to the falcon from methylated mercury, selenium, or byproducts from toxic algae, even though it eats fairly high up on the food chain and would therefore be more vulnerable to such toxins	The peregrine falcon is not expected to occur in the project vicinity during construction due to the lack of suitable nesting habitat in the vicinity of project alternative alignments. Therefore, a model description and detailed analysis were not conducted specifically for peregrine falcon in the EIR. However, Impact BIO-36 considers potential effects of the project alternatives, including an analysis of potential effects of methylated mercury, selenium, or byproducts from toxic algae, on all nesting raptors. Similarly, as described in Impact BIO-36, the environmental commitments in Appendix 3B and applicable mitigation measures would avoid and minimize impacts on all nesting raptors, including peregrine falcon.

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	concentrating up through the food chain. This DEIR must include impacts analysis and AMMs and mitigations for Peregrine Falcon.	
564-30	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE General Comment on Status as a No Take Species. Greater Sandhill Cranes are a "no take" species by virtue of their California Fully Protected Species status. For Fully Protected Species, California Fish and Game code section 86 states: "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This is a high bar in that no individuals that are Fully Protected can be killed during any phase of the construction and the operation of the Delta Conveyance project. "Take," as defined by section 86 must be avoided in all circumstances and it is not acceptable to provide mitigation for incidental take except within the construct of a state approved Natural Communities Conservation Plan (NCCP). This project is not an NCCP, but rather a huge construction project that is regional in scope. The Greater Sandhill Crane is also protected as a threatened species under the California Endangered Species Act (CESA) which defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The critical additional protection provided by CESA is that the species is not to be harmed. But unlike "Fully Protected Species" status, incidental take (harm in this case) can be mitigated. This difference in definitions explains why avoidance methods are being employed in the hopes that no Greater Sandhill Cranes are killed during the construction	This information describes the legal status of the greater sandhill crane and the key points addressed in the comment letter. It is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	and operation of the project and why land acquisition mitigations are being provided for the loss of Greater Sandhill Crane habitat. Our review will focus on whether the avoidance efforts are sufficient to ensure that no Greater Sandhill Cranes will be killed by any facets of the construction or operation of this project, and whether the land acquisition mitigations provided are adequate to address the harm caused by the project.	
564-31	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE General Comment Regarding Staten Island Wintering Crane Importance and Tunnel Shaft Location. The DEIR notes that Staten Island is an important wintering area for sandhill cranes and regularly hosts a high density of greater and lesser sandhill cranes, particularly early in the winter season (Ivey et al. 2014b:9). Interested parties provided information that was used to identify a suitable location for the tunnel shaft on Staten Island (under Alternatives 1, 2a, 2b, and 2c) in a previously disturbed location adjacent to a road and powerline on the northern portion of the island (Delta Conveyance Design and Construction Authority 2022d:4). (DEIR, chapter 13-279) To be clear, the interested parties who provided information (Sean Wirth, who was a terrestrial species stakeholder during some of the SEC process, provided this input after consultation with Dr. Gary Ivey) "that was used to identify a suitable location for the tunnel shaft on Staten Island" did not	Chapter 13, Terrestrial Biological Resources, Impact BIO-33 has been revised to more appropriately characterize the Stakeholder Engagement Committee coordination on the tunnel maintenance shaft location on Staten Island. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit. In regard to the visual disturbance of the tunnel maintenance shaft on sandhill cranes, Chapter 13, Terrestrial Biological Resources, Impact BIO-33 describes potential visual disturbances on sandhill cranes and mitigation measures to reduce, avoid, and minimize potential construction effects associated with the shaft on Staten Island. This shaft is a facility that is only associated with Alternatives 1, 2a, 2b, and 2c, and thus the potential impacts described and the mitigation specific to Staten Island are applicable only to Alternatives 1, 2a, 2b, and 2c. Pearse et al. 2017 cited by the commenter found that presence of disturbance features related to human activity (e.g., roads, bridges, dwellings) within 200 meters of roost sites reduced the probability of crane use. Sandhill cranes may avoid areas around the shaft site, including the temporary roost site, as they may avoid existing roads, buildings, and other structures that are present on Staten Island. During construction, the tunnel maintenance shaft would have six structures associated with it to

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	characterize the location as "suitable," but very clearly indicated, on more than one occasion, that the location near the existing structures on the northeast side of the island was "less horrible" than other options." The placement of an access shaft right in the middle of "ground zero" for crane populations in the Delta is flawed no matter where the tunnel shaft is placed on the island. The enormity of the structure would cause a permanent visual disturbance for cranes, which could result in the permanent abandonment of the temporary roosting area north of the proposed location because of the impaired site lines created by such a large structure (Pearce et al. 2017; Sandhill Crane Roost Selection, Human Disturbance, and Forage Resources: Roost Selection in Sandhill Cranes; The Journal of Wildlife Management; page 2). The project would disrupt both roosting and foraging during construction, and would pose a permanent strike hazard for cranes on very foggy and dark days because of its height.	store construction equipment and crews plus temporary water treatment and storage tank. These facilities would be removed following construction. The access pad surrounding the shaft would be at a level similar to the surrounding levee system, approximately 24 feet above the surrounding ground surface, and would be approximately 235 feet long and 200 feet wide (Delta Conveyance Design and Construction Authority 2022d) and therefore would not be expected to pose a substantial strike hazard. Following construction, the shaft would be extended to an elevation to prevent flood waters from entering the tunnel during the 100-year flood event with sea-level rise in Year 2100. In regard to the statement that the project would disrupt roosting and foraging behaviors, Chapter 13, Impact BIO-33 describes potential disturbances on sandhill cranes and their habitat, mitigation measures to reduce, avoid, and minimize potential effects, and compensation by providing supplemental foraging habitat prior to and concurrent with impacts in addition to compensation for permanent impacts on roosting and foraging habitat through the Compensatory Mitigation Plan (Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources).
564-32	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Assumed Arrival Time for Greater Sandhill Times is Oversimplified. Setting September 15 as the de facto day that Greater Sandhill Cranes are going to arrive is problematic. Where this may be a useful date to consider if one wants to go out and see early arrivers, it is in no way a hard and fast parameter. Greater Sandhill Cranes have been seen much earlier than that date in	Language has been added to the impact discussion and mitigation measure for greater and lesser sandhill cranes in Chapter 13, Terrestrial Biological Resources, that provides additional detail about how the September 15 through March 15 arrival and departure dates were determined. As the commenter acknowledges, the flock observed 15 years ago that arrived on August 18 is considered an outlier and the September 15 through March 15 dates referenced in the EIR are a reasonable assumption of arrival and departure dates. CEQA requires the analysis be based on a reasonable scenario, rather than a worst-case scenario. The impact discussion and mitigation measure have also been revised to acknowledge that due to the long-term nature of the project, sandhill cranes may arrive earlier and stay later than the dates specified in the EIR and that the survey dates and

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	the Delta. For example, 15 years ago a small flock was reported by Esther Milnes on August 18 (pers. discussion with Dr. Gary Ivey). Admittedly this flock was an outlier, but section 86 of CDFW code prohibits the take of any Greater Sandhill Cranes, no matter how much earlier they arrive than September 15th. As well, with climate change it would not be unreasonable to expect that arrival times could shift for cranes like it has for other birds. If as a result they left earlier from the Delta, this would not be problematic for this DEIR, but earlier arrival times would be. No consideration or discussion appears to have been provided in this DEIR addressing possible shifts in arrival times due to climate change. All analysis and avoidance measures for Greater Sandhill Cranes need to include arrival times as early as August 18th and possibly even earlier to address climate change shifts.	mitigation measures dates to minimize potential impacts on sandhill cranes may need to be adjusted over the course of the project, as determined by a qualified biologist in coordination with CDFW. As described in Mitigation Measure BIO-33, annual preconstruction surveys would be conducted beginning the winter before construction begins, which would also inform arrival dates in the study area. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-33	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Temporary Roosting Data is Outdated and Insufficient. The temporary roosting data used for temporary roosting sites is outdated and insufficient to identify potential impacts to Sandhill Cranes. The DEIR acknowledges that Greater Sandhill Cranes have a high level of philopatry for their roosting sites. But if Greater Sandhill Cranes have been using a roost site that is no longer available, they have no choice but to find a new roost site. Temporary roost sites are, by definition, not permanent. The data used for the location of roost sites in the DEIR is not current. It should be updated yearly to reflect the current locations of roost sites being utilized. Using older, and therefore not necessarily accurate, roosting data means that	Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. Temporary roost sites were included in the sandhill crane habitat models to provide a conservative estimate of additional areas where sandhill cranes may roost and to inform preliminary surveys, but avoidance and minimization measures and compensation for impacts, as described in mitigation measures for terrestrial biological resources, will be determined using data collected during surveys conducted both prior to and annually during construction. Mitigation Measure BIO-33 requires surveys to be conducted to determine where sandhill cranes are roosting and foraging and to determine where occupied habitat may be affected by construction-related noise. Surveys will account for not only how foraging locations may shift due to shifting roost sites, as the commenter suggests, but will also inform where suitable habitat does or does not occur due to changes in land cover type. As described in Chapter 13, Terrestrial Biological Resources, in the Methods Used to Assess Impacts on Special-

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	any analysis derived using those sites is also not necessarily accurate. Understanding where Sandhill Cranes are likely to forage is directly tied to where they roost. Identifying impacts to foraging cranes is an important consideration for the DEIR. This temporary roost site data deficiency needs to be corrected by using the most recent season's roosting data, and the analysis of impacts to roosting and foraging cranes needs to be updated and corrected accordingly. Additional analysis needs to be provided that considers how foraging locations may shift due to shifting roost sites. The construction window for this project is over a decade and these potential shifts could result in take of Greater Sandhill Crane if avoidance measures are not designed with these potential shifts in mind.	Status Species section, surveys will not be limited to modeled habitat but will be conducted in all suitable habitat for roosting and foraging by sandhill cranes.
564-34	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Daily Travel Distance from Roosting Site to Foraging Area is Deficient. This DEIR relies heavily on the Ivey et al 2015 study looking at how far cranes migrate daily from their roost sites to foraging areas (Ivey, Dugger, Herziger, Cassaza, and Fleskes, 2015). The paper was not trying to determine the greatest distance that a crane would commute daily for feeding, but rather it was trying to determine commute distances in the context of conservation. To that end the discussion in the paper clearly states that habitats within 5 km of roosts for Greater Sandhill Cranes, which would encompass 95% of the studied Greater Sandhill Cranes, and within 10 km for Lesser Sandhill Cranes (90%), should be considered for making zoning and land use considerations. The remaining 5% of Greater Sandhill Cranes	The use of the 5-kilometer (km) daily commute distance that encompassed 95% of greater sandhill cranes and the 10-km daily commute distance that encompassed 90% of lesser sandhill cranes in Ivey et al. 2015 is a reasonably prudent distance to analyze effects on sandhill cranes. Ivey et al. 2015 presents these commute distances as appropriate for zoning and land use considerations, and these commute distances were considered in project design, including the prioritization of undergrounding power and SCADA (supervisory control and data acquisition) lines and the placement of overhead power lines in relation to known sandhill crane roost sites. Ivey et al. 2015 also proposed that the 5-km commute distance for greater sandhill crane would be effective to reduce impacts of hunting (in areas where hunting is authorized) by restricting hunting to areas greater than 5 km from roost sites. Impact BIO-33 provides a reasonable assessment of foreseeable impacts under CEQA. The implementation of measures to avoid and minimize effects of the project on sandhill cranes is not restricted to the 5-km and 10-km commute distances used to estimate reasonably probable impacts.

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	and the remaining 10% of Lesser Sandhill Cranes, that commute farther than the respective 5 km and 10 km also need to be considered in a DEIR that must ensure that no Greater Sandhill Cranes will be killed, and that must identify and mitigate for harmful impacts to Greater and Lesser Sandhill Cranes, even those that are outliers when it comes to long commuting distances. It is important to remember that only 33 Greater Sandhill Cranes and 44 Lesser Sandhill Cranes were tracked for the study. Where this number of cranes were able to provide a statistically significant understanding of the relationship between roost sites and foraging sites, the same cannot be said for using the same data for determining the greatest distance that a crane might travel to forage. The Ivey et al. paper (Ivey, Dugger, Herziger, Cassaza, and Fleskes, 2015) included a data point for a Greater Sandhill Crane traveling almost 9 kilometers from the roost site, and one for over 21 kilometers for a Lesser Sandhill Crane. So, the longest distance that might be travelled can be accurately described as longer than 9 km for Greater Sandhill Crane, and longer than 21 km for Lesser Sandhill Cranes. Given the thousands of cranes that winter in the project area, the extreme outliers could travel significantly further. There was no acknowledgement or discussion of this probability, nor does any of the impact analysis consider this probability. The distances utilized by this DEIR for identifying possible impacts fall short and do not encompass possible impacts from this project on cranes throughout their winter landscape. This resulted in a deficient approach for identifying potential deadly impacts to Greater Sandhill Cranes and potentially harmful	As described in Mitigation Measure BIO-33, the measures to avoid and minimize impacts on sandhill cranes will be based on annual surveys to determine suitable and occupied habitat and will not be limited to areas of modeled habitat. Please also see the Chapter 13 figure titled Modeled Habitat in Relation to Suitable and Occupied Habitat, which presents the stepwise process to identify modeled habitat, suitable habitat, and occupied habitat for special-status species. Mitigation Measure BIO-2c outlines the commitment by DWR to ensure that Avian Power Line Interaction Committee (APLIC) recommendations (or more current guidance) are incorporated into project power and SCADA lines, including marking overhead project lines with bird diverters. With the environmental commitments and mitigation measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these environmental commitments and mitigation measures, the project would not be expected to increase the potential for take of greater sandhill crane in the project area.

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	impacts to both Greater and Lesser Sandhill Cranes. Analysis should be done looking at possible impacts greater than 9 km from roost sites for Greater Sandhill Cranes because deadly impacts are possible in that range, as an example, a Greater Sandhill Crane being flushed when it is foraging 10 km from its roost site and hitting an existing power line on a cloudy day. For Lesser Sandhill Cranes that distance should be more than 21 kilometers to determine possibilities for harm. This deficiency will be commented on further in the context of new powerlines as well as potential impacts to foraging cranes.	
564-35	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Analysis of Crane Collisions with Transmission Lines and Proposed Avoidance Measures Are Deficient Because Roosting and Travel Distance Data Are Deficient. There are descriptions and analyses of bird strikes with new powerlines with a particular focus on, and even an appendix devoted to, Sandhill Cranes because of a substantial historical record of this species being vulnerable to such strikes. The deficiencies discussed already about outdated roost site data and daily commute distances are evident here. Most greater sandhill crane movement in the Delta occurs within approximately 1.2 miles of their primary roost sites (Ivey et al. 2015:523) and Brown et al. (1987:131) found that no sandhill crane collisions occurred where distances from power lines to bird-use areas were greater than or equal to 1 mile (Avian Power Line Interaction Committee 2012:50). All proposed new aboveground towers and associated SCADA and	Please refer to response to comment 564-34 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA in Impact BIO-33. In regard to the reference to Brown et al. 1987 specifically, the project does not include the construction of new transmission lines within 2 km of traditional (known, permanent) roost sites in the Delta. Because the location of suitable foraging habitat in the Delta varies depending on crop type and land management, it is less clear what would be defined as a traditional feeding site. In regard to the location of aboveground transmission lines, as described in Impact BIO-22, the majority of new project power and SCADA (supervisory control and data acquisition) lines will be underground and will not impact sandhill cranes. New, overhead project lines within the crane use area will be limited to one overhead 20-meter transmission line that would be required to connect a new substation to existing transmission lines. The new 20-meter segment would be located along SR 12 under Alternatives 1, 2a, and 2b or on Lower Roberts Island under Alternatives 3, 4a, 4b, 4c, and 5. As described in Mitigation Measure BIO-2c, all new aboveground project lines will be marked with bird flight diverters that are visible under all

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	transmission lines would be located at least 3 miles or more from the nearest known greater sandhill crane roost site under all alternatives. (DEIR, chapter13, page 272) It is true according to Ivey et al., 2015, that most Greater Sandhill Crane have daily commute distances in the Delta that occur within 1.2 miles of roost sites, and even that 95% of Greater Sandhill Cranes are commuting 5 km or less daily. But there remains the issue of the other 5% of Greater Sandhill Cranes that are travelling farther. As for Brown et al., 1987, bird use areas include both roosting and foraging, and his recommendation in that paper was to locate new transmission lines at least 2 km (which is 24.3% farther than the 1 mile attributed to Brown in this DEIR) from roosting and feeding sites. So, 1.243 miles from a crane use area would extend far beyond 1.2 or even three miles from the roost site based on the conclusions from the Ivey et al, 2015, paper, which demonstrated that Greater Sandhill Cranes can travel close to 9 km from roost sites, if not further. The correct math based on these two papers does not support a conclusion that locating new transmission lines at least 3 miles away from roost sites will avoid the possibility of a Greater Sandhill Crane being killed by a new transmission line. The correct math would be that new lines should be located at least 11 km from roost sites (9 km travel distance plus the additional 2 km added by Brown), and possibly significantly further away given the likelihood that some Greater Sandhill Cranes are at times travelling even further from their roost sites. Locating new above ground towers and associated SCADA and transmission lines 3 miles or more from Greater Sandhill Crane roost sites is clearly inadequate to avoid possible powerline	conditions (e.g., glow-in-the-dark markers, near-UV line markers), even those outside the crane use area. As the commenter states, the location of roost sites dictates where to measure commuting distances from, and temporary roost sites may vary annually, depending on the management of those areas. Therefore, the impact analysis in Chapter 13, Terrestrial Biological Resources, uses the distances published in Ivey et al. 2015 to analyze effects on a reasonable proportion of the cranes within the study area, while Mitigation Measure BIO-33 requires surveys for sandhill cranes to be conducted. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied roost sites and foraging habitat. In regard to the co-location of transmission lines in the same vertical prism on existing towers, adding a new line span on existing towers would reduce potential effects on avian species, including sandhill cranes, in comparison to constructing a new alignment of towers and powerlines and is consistent with Avian Power Line Interaction Committee (APLIC) guidance (2006, 2012). Mitigation Measure BIO-2c includes reasonable measures to minimize the risk of avian collisions with power and SCADA lines that are consistent with APLIC recommendations (2006, 2012), including the use of bird flight diverters and other measures described earlier in the response. With these measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures the project would not be expected to increase the potential for take of greater sandhill crane in the project area.

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	strikes for a bird that we know travels close to at least twice that distance (9 km data point from Ivey et al., 2015) and quite possible much more. Add to this the problem of outdated temporary roost data and it becomes impossible to accurately determine where to even start measuring the commute distances from. These deficiencies make it impossible to understand the potential impacts to Greater Sandhill Cranes. And, locating new transmission lines at least 3 miles from roost sites does not avoid the eventuality of Greater Sandhill Cranes being killed and Lesser Sandhill Cranes being harmed. The same issues exist for the co-location of powerlines: Replacement aboveground transmission lines along Franklin Road would be placed at the same vertical height as the existing lines on the opposite side of the tower. Replacement aboveground transmission and SCADA lines located within 1.2 miles of known roost sites, in the absence of mitigation, could increase the potential for collision for greater sandhill cranes (within 3 miles of known roost sites for lesser sandhill cranes; Ivey et al. 2015:523) if they were not constructed within the same vertical prism as the existing lines. (DEIR, chapter 13-273) As discussed above, the Ivey et al., 2015, and Brown et al. 1987, papers taken together suggest that any above ground transmission line within 11 km (6.83 miles), not 3 miles, of a roost site could increase the potential for collision for Greater Sandhill Crane. The DEIR inappropriately failed to analyze this. Further, constructing the new lines such that they are within the same prism as the existing lines does not guarantee that Greater Sandhill Cranes will not die hitting them. A bird gaining altitude as it flushes from a roost or forage site might clear the	In regard to the commenter's statement regarding the adequacy of the EIR's analysis of the potential impact of greater sandhill cranes hitting existing transmission lines after being flushed from foraging sites by construction activities, the EIR discloses that construction activities could cause sandhill cranes to flush, if they perceive such activities as a threats; that sandhill cranes are known to be susceptible to collision with aboveground wires; and that cranes in the Delta are regularly exposed to dense fog, which limits visibility and increases potential collision with power lines. With the environmental commitments described in Appendix 3B, Environmental Commitments and Best Management Practices, and the implementation of the measures in Mitigation Measure BIO-2c and Mitigation Measure BIO-33 to avoid and minimize impacts on sandhill cranes, the project would not be expected to abnormally increase potential collisions with existing or new lines above baseline conditions. The measures include the implementation of work windows, surveys to document occupied habitat, noise monitoring, the provision of foraging and roosting habitat prior to and concurrent with impacts on habitat where sound levels are greater than 50 dBA, and monitoring of construction and maintenance activities. Appendix 3F, CMP also describes the compensation for permanent impacts on roosting and foraging habitat. In regard to the analysis of impacts and mitigation for impacts on lesser sandhill cranes, avoidance and minimization measures are not limited to the 5-km and 10-km commute distances analyzed in the EIR. As described in Mitigation Measure BIO-2c, bird flight diverters that are visible under poor conditions would be placed on all new project lines consistent with APLIC guidance (2006, 2012). In regard to the commenter’s suggestion that the mitigation should include placement of bird flight diverters on existing lines in the study area, as described above, the environmental commitments described in Appendix 3B, and the implementation of the measures in Mitigation Measure BIO-2c

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	first lines as it gains altitude only to hit the new set of lines extending further out at the same elevation. Placing flight diverters may help, but the risk would remain. It is our understanding that the SCADA lines are to be installed significantly closer to the ground than the electrical lines. This would mean that Greater Sandhill Cranes would have to avoid both the lower SCADA lines and the upper electrical lines requiring them to avoid a new lower hazard as well as an elongated upper hazard. The project alternatives have been designed to avoid any activities that would result in actions considered "take" of greater sandhill crane. The project alternatives would use existing power lines or underground conduit to the extent possible for the purpose of avoiding potential injury or direct mortality of the greater sandhill crane and all new aboveground lines would be located outside of the roost sites or foraging habitat for greater sandhill crane. (Chapter 13-274) The analysis of above ground transmission lines did not reflect the amount of the landscape that Greater Sandhill Cranes are using outside of their roost sites, using 3 miles as opposed to a minimum of 11 km as an initial parameter. The co-location of the upper lines may result in fewer strikes than an entirely new alignment, but no evidence was provided that the additional width from adding new lines on the same plane is not a hazard to cranes gaining elevation as they flush. The SCADA lines introduce a new lower striking hazard with no evidence that Greater Sandhill Cranes will not hit them, even if flight diverters are installed on them. The Delta can have very thick fog, which could obscure even the best diverters. Diverters do not insure against crane collisions and species take.	and Mitigation Measure BIO-33 are sufficient to avoid and minimize potentially significant impacts on sandhill cranes.

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	The final transmission line deficiency is that there was no impact analysis of Greater Sandhill Cranes hitting existing transmission lines after being flushed from foraging sites by construction activities. Attention was only given to new lines and only within 3 miles of roost sites. The DEIR acknowledges the possibility of flushing foraging cranes as an example by construction vehicles on the haul roads, but it does not address the existing power line strike issue that could result from flushing foraging birds. The analysis should use current roost site data and consider all existing power lines and other potentially deadly physical obstructions like, but not limited to, fences, buildings, large equipment, poles etc. within a minimum of 11 kilometers, and potentially further, if the DEIR is unable to demonstrate that Greater Sandhill Cranes are not travelling even further, that might be hit by cranes being flushed from their forage sites by construction activity. No avoidance measures were presented for this potentiality, beyond 3 miles from roost sites, for Greater Sandhill Cranes, or mitigations provided for Lesser Sandhill Cranes, and only new transmission lines were considered within those 3 miles. There appears to have been an assumption that the avoidance measures that were designed to keep Greater Sandhill Cranes from hitting transmission lines also would be protective for Lesser Sandhill Cranes. This was an erroneous assumption. As indicated earlier, Lesser Sandhill Cranes were documented flying more than 21 km from roost sites in the Ivey et al 2015 paper, which means that 21 km is a minimum distance to be considered and not the farthest distance that Lesser Sandhill Cranes are likely travelling because the sample group was only 44 birds. Adding the 2 km recommendation called for in the	

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	Brown 1987 paper, any powerline (new or existing) within a minimum distance of 23 km from a roost site that could be hit by a crane because of construction activities presents a potentially deadly or harmful threat. There were no avoidance or minimization measures or mitigations for transmission lines (new and existing) that addressed impacts for any cranes beyond 3 miles from roost sites. This is even though obvious mitigations exist like requiring the installation of flight diverters on any existing transmission lines within 23 km of a roost site that cranes might hit if they were flushed while foraging, particularly on foggy and dark days. For new powerlines, the avoidance and minimization measures should extend to include any line within a minimum of 11 km of roost sites for Greater Sandhill Cranes, and a minimum of 23 km for Lesser Sandhill Cranes. These avoidance and minimization measures will help but cranes, both Lesser Sandhill Cranes and Greater Sandhill Cranes, could still be killed or harmed by transmission lines because of construction activity for this project because of the significant number of days of very cloudy weather in the Delta when cranes are present, which could make even the best flight diverters inadequate. The transmission line impact potentiality is unavoidable and potentially significant, potentially fatal to Greater Sandhill Cranes, and no mitigations measures were provided for Lesser Sandhill Cranes that could be harmed beyond 3 miles from roost sites. Even if the avoidance and minimization measures are improved with more flight diverters on existing lines extending out to 23 kilometers from roost sites, it is still likely that Lesser Sandhill Cranes will be harmed or killed by collisions with immovable objects on very foggy and dark days.	

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564-36	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Proposed Avoidance and Minimization as Well as Mitigation Measures Are Not Adequate to Avoid Killing or Harming Greater Sandhill Cranes Because of Construction and Operation Related Noise Created by the Project. Construction and operation noise has the potential to cause cranes to flush and possibly hit transmission lines (new and existing) or other obstructions on the landscape. This DEIR suggests that cranes have been seen to acclimate to steady sources of noise, like that from a busy freeway. It also states that: "less is known about the ability of sandhill cranes to habituate to intermittent noise such as that associated with the operation of heavy equipment (e.g., pile drivers, construction cranes, compressors, heavy trucks) (DEIR, chapter 13-266)." A discussion followed this admission in an apparent effort to refine what is known about Sandhill Cranes ability to habituate to intermittent noise. Hazing techniques are regularly employed in North America to prevent sandhill cranes from causing significant crop damage or colliding with aircrafts (Barzin and Ballinger 2017:1). Hazing techniques such as propane cannons and pyrotechnics have been reported to lose their effectiveness as deterrents once individuals are no longer naive to the auditory disturbance, particularly in high-value habitat (Barzin and Ballinger 2017:5–6), suggesting that cranes can habituate to extreme and sporadic sounds. Disturbance from waterfowl hunting can reduce habitat availability to sandhill cranes (Ivey et al.	As the commenter notes, the EIR includes a discussion to provide the information that is known about sandhill crane reactions to varying sources and types of noise and a discussion of what sources and types of noise sandhill cranes are exposed to within the study area under existing conditions. Contrary to the commenter's assertion that the EIR undermines the analysis presented in Chapter 13, Terrestrial Biological Resources, the EIR instead presents a breadth of information that supports the statement in the EIR that potential effects of noise likely depend on multiple factors, including habitat characteristics and disturbances under existing conditions. The EIR further states that because of the influence of multiple environmental factors and because of the duration and nature of the construction activities, the impact analysis assumes that construction-related noise levels could displace cranes, quantifies the acres of modeled habitat that may be affected by sound levels that are greater than 50 dBA, and includes commitments in Mitigation Measure BIO-33 to compensate for that affected habitat for the duration of construction. Please see response to comment 564-35 in respect to environmental commitments and mitigation measures that will reduce impacts to a less-than-significant level. Also, as described in Mitigation Measure BIO-33, noise monitoring will be conducted prior to and during construction to better understand sound levels under existing conditions. Noise monitoring will also be conducted during the pile drive test program to determine site-specific sound levels and the effectiveness of existing noise barriers (such as levees or embankments) and artificial barriers in reducing sound levels. In regard to the commenter's statement regarding the potential for take of greater sandhill cranes, Impact BIO-33 describes reasonable measures that will be implemented to minimize potential impacts on sandhill cranes. Please see response to comment 564-35 regarding these measures, including work windows surveys, monitoring, compensation, and compliance with APLIC recommendations (2006, 2012). With these

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	2014a:27; Ivey et al. 2014c:16–17) and cranes have been observed to avoid roost sites once opening day of hunting season has begun (Ivey et al. 2014c:16). Sandhill cranes are present in the study area during the waterfowl hunting season (approximately October 23 through January 31), and hunting occurs throughout the study area on Bouldin Island, Little Mandeville Island, private duck clubs, Stone Lakes NWR within 1 mile of known roost sites, and from public waterways throughout the Delta. Cranes are therefore exposed to irregular, explosive sound from shotguns under existing conditions (a 12-gauge shotgun blast is approximately 165 dB) and respond to those disturbances throughout the winter season. (DEIR, Chapter 13-266) The referenced Barzin and Ballinger paper references the use of propane cannons and pyrotechnics. These devices appear to have been used in the Spring to protect corn kernels planted in the ground from cranes. It should be noted that crane behavior can vary depending on the season, and that how a crane behaves in the Spring (up on their breeding grounds) cannot be seen as a surrogate for how a crane will behave on its wintering grounds. And, even if the devices are not effective long term, the paper clearly indicated that it was initially effective, especially with "naïve" birds. Juvenile cranes would fit the definition of “naïve”, and these are the same cranes most likely to flush when disturbed and hit a powerline, and, as has already been indicated in this comment letter, the modeling for powerline strikes is deficient to even determine the level of impacts. During the foggy wintering season in the project area, “naïve” Greater Sandhill Cranes would be particularly vulnerable to sound impacts and with the current avoidance measures “take” as defined by section 86 of CDFW	measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures the project would not be expected to increase the potential for take of greater sandhill crane. In regard to the sufficiency of the model to determine potential impacts from powerlines and the potential for sandhill crane impacts to occur at a greater distance than was analyzed in the EIR, please see response to comment 564-34 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA in Impact BIO-33. Please also see Mitigation Measure BIO-2c, which, as described in response to comment 564-34, requires that all new project lines be fitted with bird strike diverters that are visible under poor (e.g., foggy) conditions consistent with APLIC recommendations (2006, 2012). In regard to the adequacy of the models used in the EIR, please see response to comment 564-94 regarding the use of modeled roost site data and Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. In regard to the commenter's suggestion that studies could be conducted to measure hormone levels in sandhill cranes, DWR has collected substantial information and reviewed available data both to identify the best available science concerning disturbance of cranes and to analyze potential impacts. The mitigation measures have been developed consistent with those data, and additional studies are not necessary for the analysis to be sufficient for the purposes of CEQA.

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	code is a definite possibility. It is also worth noting that the suggestion that cranes could potentially acclimate to the construction disturbance is substantially undermined by this quote from the DEIR: Construction activities would not be expected to injure or kill sandhill crane individuals. If a bird is present in a region where construction activities are occurring, the bird would be expected to avoid the slow-moving or stationary equipment and move to other areas, as they would move away from any other trucks or farm equipment that could be present within or adjacent to agricultural habitats under existing conditions. (DEIR, Chapter 13-265-6) This quote suggests that cranes are going to move (flushing is indeed a type of movement) to avoid disturbances, which due to the nature of the construction is likely going to have a sound component. As such, this DEIR is counting on them moving and not habituating and staying close to construction disturbances, which is quite different from some of the inferences made in the last quote from this same DEIR. The Environmental Groups generally agree that cranes will avoid these disturbances, and we believe that the sound component of the construction is a significant part of why they would move. But the critical issue is that the movement is fraught because they could be injured or killed by obstructions in their environment at far greater distances from their roost sites than this DEIR analyzed or considered, or by obstructions other than new transmission lines within the areas that were analyzed. Limiting construction activities greater than 50 dba to one hour before sunrise until one hour after sunrise does not limit heavy	

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	equipment or other vehicles from driving haul roads and access roads and potentially flushing cranes which could result in transmission line strikes – and here again the outdated roost site data and deficient daily commuting analysis are problematic. Similarly, construction sounds below 50 dba from stationary sources (intakes, shafts, etc.) have the same capability of flushing cranes. As for the discussion about hunting disturbances in the Delta, it is important to highlight that the DEIR states, based on the 2014 Ivey paper: "cranes have been observed to avoid roost sites once opening day of hunting season has begun," suggesting a quite significant behavioral modification because of the gunfire (DEIR, chapter 13-267). The DEIR quote also states that: "Cranes are therefore exposed to irregular, explosive sound from shotguns under existing conditions (a 12-gauge shotgun blast is approximately 165 dB) and respond to those disturbances throughout the winter season (DEIR, chapter 13-267)." The cranes' response is the obvious concern here, but this quote infers that since cranes are adjusting to the hunting, they will also adjust to the noise impacts from the project. Beyond abandoning roost sites and possibly nearby foraging sites because of the gunfire, they may also be undergoing stress, which is harmful to their survival and their future ability to be successful breeders. The response to gunfire seems to undo the suggestion that cranes easily habituate to extreme disturbance as evidenced by avoiding roost sites. This suggests that the enhanced feeding opportunities' mitigation provided in Bio -33 may help offset the reduction in foraging habitat available, but it is unclear how this might address the stress component of their response.	

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	There are field tested techniques available that could help determine if specific aspects of the construction process are stressing cranes. Glucocorticoid metabolites have been used to gage stress levels in cranes in the field [Barcelo, Ingrid, "Winter Ecology of Sandhill Cranes (Grus canadensis) in Northern Mexico", 2012 in Dissertations & Theses in Natural Resources, page 65]. Collecting and analyzing field samples for the presence and quantity of this stress indicator before construction begins and then comparing that to samples collected during construction could provide important feedback on whether the avoidance and minimization measures are effective or if they might need to be modified and improved.	
564-37	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE Construction and Maintenance Vehicles Will Flush Cranes. The 15 mile an hour speed limit on the dirt haul roads (DEIR, chapter 3b-24), such as those needed to access the intakes, might be effective to avoid running over small species in the roadway, or flying across the roadway, but it is potentially more of an impact for cranes. Using the unpaved section of Staten Island Road as a surrogate, slowing down from the speed limit of 25 miles an hour there to take a photo of cranes near the road inevitably causes them to flush. Similarly, driving very slowly (10 to 15 miles an hour) along the same road hoping to get photos of cranes near the road also causes them to flush before a photo can be taken. Driving at the speed limit of 25 miles per hour often does not cause the cranes to flush.	In regard to the 15 mile-per-hour speed limit, the commenter notes that under existing conditions, slow moving vehicles, or vehicles that stop for photographs directly in front of cranes, can cause the birds to flush. Staten Island Road is regularly travelled during the months that sandhill cranes are present in the study area, and individuals and groups regularly slow their vehicles and park adjacent to sandhill crane roost sites to observe and photograph cranes. Impact BIO-33 includes an acknowledgement that sandhill cranes are sensitive to vehicle and human disturbances and that the presence of vehicles and humans can cause sandhill cranes to move/flush. However, there is no scientific evidence that project-related vehicles moving at 15 miles per hour would increase the potential for cranes to flush, be killed, or be harmed above the disturbance of vehicles travelling at similar speeds and stopping and the human disturbance of people getting out of their vehicles to observe and take photographs adjacent to sandhill cranes under existing conditions.

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	So, the 15 mile per hour speed limit on dirt roads might be good for avoiding roadkill, but it is also potentially problematic for flushing birds, including Greater Sandhill Cranes. Slow moving vehicles on the dirt haul roads may flush more birds than faster moving vehicles. Of concern here is that Greater Sandhill Cranes that are flushed may be killed or harmed, particularly on foggy and dark days. And again, the existing transmission line analysis, because of outdated roost site data and the approach used to determine daily commute distances for cranes, along with not considering other obstructions on the landscape that a crane might hit, was deficient and therefore unable to determine if cranes may be killed when flushed by these slow-moving vehicles even after avoidance and minimization measures and mitigations. The intermittent nature of vehicles driving down the new construction roads makes habituation less likely for cranes. This would certainly also be the case during the operation of the project because maintenance and operation vehicles would be extremely intermittent, suggesting that any nearby cranes encountered would be flushed and vulnerable to mortality as a result. The intermittent usage of the haul roads exacerbates the likelihood that cranes will be flushed. Any claims that the cranes might be able to acclimate to steady vehicular flows is dismantled by the reality that for at least some of the construction, and for all of the operation and maintenance, the usage will be very intermittent and highly likely to flush any nearby cranes encountered, which on foggy and dark days could result in bird strikes on power lines. This DEIR admits, in a quote we used earlier, the likelihood of flushing cranes but describes it as "moving:"	Please see response to comment 564-34 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA for Impact BIO-33. Please also see response to comment 564-34 for a discussion of Mitigation Measure BIO-2c and the requirement that all new project lines be visible under poor (e.g., foggy) conditions consistent with Avian Power Line Interaction Committee recommendations (2006, 2012). In regard to the comment on the adequacy of the models, please see response to comment 564-94 and the discussion of the use of modeled roost site data. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. Please see response to comment 564-35 regarding the reasonable assessment of foreseeable impacts under CEQA and the description of reasonable measures that would be implemented to minimize potential impacts on sandhill cranes. With the measures described in response to comment 564-35, the project would not result in a substantial reduction of the population or restrict the range of the species, or in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures, the project would not be expected to increase the potential for take of greater sandhill crane in the project area.

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	Construction activities would not be expected to injure or kill sandhill crane individuals. If a bird is present in a region where construction activities are occurring, the bird would be expected to avoid the slow-moving or stationary equipment and move to other areas, as they would move away from any other trucks or farm equipment that could be present within or adjacent to agricultural habitats under existing conditions. (DEIR, chapter 13–265-6) The DEIR also admits that maintenance activities would disturb cranes: The maintenance of aboveground water conveyance facilities for all project alternatives would result in periodic disturbances that could affect roosting and foraging sandhill cranes. Maintenance activities across all facilities that could affect sandhill cranes (all project alternatives) include repaving of access roads every 15 years, semiannual general and ground maintenance (e.g., mowing, vegetation trimming, herbicide application), and daily or weekly inspections by vehicle. Noise and visual disturbances from these maintenance activities at the intakes and shaft sites could disturb greater and sandhill cranes roosting or foraging in the vicinity of work areas if activities are conducted between October and mid-March (when cranes are present in the study area). However, as described above under construction-related effects, there is insufficient data to assess the effects that maintenance noise levels would have on sandhill crane behavior, relative to existing conditions. Maintenance activities would generally be conducted during the day, except for emergency maintenance, and would therefore not require additional lighting. (Chapter	

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	13-273) It is difficult to impossible to conclude that with the proposed avoidance measures that for the 12 plus years of construction, followed by the decades of maintenance, that all cranes flushed by vehicles or other construction activity will avoid mortality from hitting powerlines or poles or fences or other obstructions during foggy and dark days, especially given the deficient analysis of existing powerlines and other obstructions within 11 km of roost sites, and the use of outdated roost site data.	
564-38	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The Proposed Compensatory Management Plan for Greater Sandhill Cranes Is Inappropriate The DEIR in Appendix 3F states that: The implementation of the CMP [Compensatory Management Plan] would be required to offset the loss of roosting and foraging habitat by creating roosting and foraging habitat and protecting agricultural foraging habitat for sandhill cranes (Appendix 3F, Attachment 3F.1, Table 3F1-3, CMP-18a: Sandhill Crane Roosting Habitat, and CMP-18b: Sandhill Crane Foraging Habitat), which would reduce the impact associated with habitat loss to less than significant. The proposed CMP that uses Bouldin Island for creating new roost and forage sites for Sandhill Crane is inappropriate for impacts to cranes at Stone Lakes National Wildlife Refuge and	Part of this comment compares certain aspects of the Delta Conveyance Project EIR to the previous Bay Delta Habitat Conservation Plan (BDCP)/California WaterFix DEIR/DEIS. Thus, portions of the comment do not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. Regarding the level of detail in the analysis of compensatory mitigation locations for sandhill crane, please see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (CMP), section Mitigation Approach, which describes the three methods of mitigation under the CMP. Bouldin Island has been identified as an initial mitigation site, which has design details and acreages that can be analyzed. Please also see the Site Selection Criteria section in Appendix 3F for a discussion of how the initial mitigation sites were selected. The other approach that is applicable to sandhill crane compensation is the implementation of site protection instruments that would be used to

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	the Cosumnes River Preserve because it does not benefit the populations that are impacted by construction of the intakes and the launch shaft and reusable tunnel material (RTM) storage planned for north of Twin Cities Road. During the Terrestrial Stakeholder meetings back when the tunnel/s was part of the Bay Delta Conservation Plan ([B]DCP), there was agreement to build a roost and forage complex that would bridge the Stone Lakes and Cosumnes River populations providing continuity between two of the populations of cranes that were going to be severely impacted by the project. This possibility still exists as a shadow in the current DEIR: The CMP (see Impact BIO-1 for a summary discussion of the CMP) would offset the loss of greater sandhill crane and lesser sandhill crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes NWR and Cosumnes River Preserve, and managing these areas in perpetuity. (Appendix 3F, Attachment 3F.1, Table 3F.1-3, CMP-18a: Sandhill Crane Roosting Habitat) (DEIR, Chapter 13-274). The use of Bouldin Island for the CMP gets significant analysis and discussion in this DEIR, whereas the connectivity option is only included in the part of one sentence and is given no analysis or consideration beyond this half sentence mention. Bouldin Island might be an appropriate location to consider for impacts to cranes on Staten Island (which is only relevant if the central alignment options are selected), but it is useless to address the impacts to the Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve crane populations because it is outside of the daily commuting distances of those	manage property between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve. These site protection instruments are described in Appendix 3F, section Site Protection Instruments, and greater sandhill crane is identified as a target species for habitat conservation and management through site protection instruments, but these processes have not yet been developed to the same level of detail as the initial mitigation sites and therefore are described more generally at this time. Both Bouldin Island and the locations between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve are considered adequate to provide and be managed for suitable sandhill crane habitat. The commenter refers to the Stone Lakes and Cosumnes populations of sandhill crane. However, the only population of greater sandhill crane that winters in the study area is the Central Valley population, and similarly, the population of lesser sandhill cranes that winter in the study area is the Pacific Flyway population. As described in Chapter 13, in addition to the compensation for impacts through the CMP, foraging and roosting habitat would be established and managed for sandhill cranes prior to and concurrent with construction impacts to compensate for impacts on occupied habitat where sound levels are greater than 50 dBA. The newly established sites would be located within 1 mile of the disturbed habitat, providing habitat within the daily commuting distances of the sandhill cranes affected by construction activity. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the components of the CMP and also Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and Common Response 11 regarding the adequacy of mitigation under CEQA.

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	cranes. There should be a commitment to provide this connectivity and the FEIR should include the analysis and the consideration appropriate for the potential impacts of this more appropriate compensatory mitigation option to be compliant with CEQA.	
564-39	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES GREATER SANDHILL CRANE The DEIR and in Particular, the Compensatory Management Plan Fail to Acknowledge the Environmental Commitments in Both Prior Tunnel Projects That Would Mitigate for Impacts to Listed Species in Proximity to Those Impacts The Friends of SLNWR comment letter of April 17, 2020 on the NOP for this project included the following comment: WaterFix environmental commitments must be included as part of project. The WaterFix tunnel project included a number of environmental commitments that were a product of extensive discussions with stakeholder groups associated with Stone Lakes NWR. These measures provided significant mitigation for impacts on terrestrial species, most notably greater sandhill cranes and Swainson's hawks. These environmental commitments must be included as part of the project, preferably as mitigation measures for the current tunnel project. The DEIR does not include these commitments in Appendix 3B, Environmental Commitments and Best Management Practices. Of particular importance are the biologic commitments pertaining to the creation of an additional roosting site for	This comment refers to the environmental commitments included in the California WaterFix project, which is no longer being pursued. Thus, the comment does not directly address the Delta Conveyance Project Draft EIR. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the California WaterFix project and the consideration of different project objectives. The Delta Conveyance Project includes environmental commitments and best management practices in Appendix 3B, Environmental Commitments and Best Management Practices; compensatory mitigation in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources; and other mitigation measures to address potential impacts on special-status species described in Chapter 13, Terrestrial Biological Resources. Regarding mitigation for greater sandhill crane and Swainson's hawk specifically, Mitigation Measure BIO-33 and Mitigation Measure BIO-39 in Chapter 13 describe the avoidance and minimization measures that would be implemented to reduce impacts on greater sandhill crane and Swainson's hawk, respectively. Mitigation Measure BIO-33 includes the commitment to provide supplemental sandhill crane habitat to which the commenter refers, which would be established and managed for sandhill cranes prior to and concurrent with construction impacts to compensate for impacts on occupied habitat where sound levels are greater than 50 dBA. The Delta Conveyance Project compensates for impacts on natural

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	sandhill cranes and other migratory species and to supplemental foraging sites to mitigate for disturbances during construction of intake facilities. The impacts associated with these species will be primarily located near the intake and tunnel construction sites. These commitments should appropriately be incorporated in the CMP.	communities and species habitat, including habitat for greater sandhill crane and Swainson's hawk, through the CMP. Appendix 3F also describes the proposed locations of compensation for greater sandhill crane through initial mitigation sites that have been designed and the mechanism for additional compensation through other site protection instruments.
564-40	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES The DEIR May Not Have Utilized the Most Recent Version of the South Sacramento Habitat Conservation Plan Throughout the Document Table 13-106. Cumulative Impacts on Terrestrial Biological Resources from Plans, Policies, Programs) states: The South Sacramento Habitat Conservation Plan (HCP) is a regional plan to address issues related to species conservation, agricultural protection, and urban development in south Sacramento County. Adopted in 2018, the HCP covers 40 different species of plants and wildlife including 10 that are state or federally listed as threatened or endangered, and allow landowners to engage in the "incidental take"99+ of listed species (i.e., to destroy or degrade habitat) in return for conservation commitments from local jurisdictions. (Chapter 13-493) The 2010 draft of the SSHCP had 40 covered species, but the Plan adopted in 2018 had 28 making one wonder if an older version of the Plan was referenced for the preparation of some of this DEIR. A careful examination should be done to ensure that all references to the older Plan are corrected to reflect the content of the adopted version.	The analysis in Chapter 13, Terrestrial Biological Resources, under Impact BIO-54, references the correct, adopted version of the South Sacramento HCP. The EIR has been revised in response to this comment to correct the error in the Chapter 13 table titled Cumulative Impacts on Terrestrial Biological Resources from Plans, Policies, and Programs to include the correct number of covered species under the South Sacramento HCP. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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564-41	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES The Evaluation of Potential Conflicts with the South Sacramento Habitat Conservation Plan Is Inaccurate and Incomplete. The presentation of the potential conflicts with the South Sacramento Habitat Conservation Plan (SSHCP) is neither accurate nor complete and as a result is quite misleading and portrayed the conflict as very negligible, which is not the case. It is important to understand that the SSHCP is divided into Preserve Planning Units (PPUs). Each unit features different geologies and ecologies and was designed with a specific focus of protecting specific covered species. The proposed massive-scale construction in and near Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve – including the launch shaft and RTM storage site north of Twin Cities Road - is within PPU 6, which is an agricultural and grassland unit, as explained in the SSHCP: PPU 6 encompasses 95,196 acres outside the UDA in the southwestern portion of the Plan Area. PPU 6 is bisected by Interstate 5. It is bordered on the west by the Sacramento River, on the south by the Mokelumne River, and Dry Creek. The dominant land covers in PPU 6 are Agriculture (58,458 acres) and Valley Grassland (17,633 acres). All of the SSHCP covered birds have been documented in PPU 6, including 281 (71%) occurrences for Swainson's Hawk, 190 (92%) occurrences for Greater Sandhill Crane, and 55% or more of occurrences for Northern Harrier and White-tailed Kite. Put simply, PPU 6 is the population stronghold for Greater Sandhill	In regard to the assertion that PPU 6 is the stronghold for Swainson's hawk and greater sandhill crane, it is assumed that this comment refers to the proportion of those species within the South Sacramento Habitat Conservation Plan (SSHCP) plan area, not the stronghold for the populations of these species. The EIR describes in Appendix 13B, Species Accounts, the importance of the Central Valley and the Delta for these species. In regard to the overlap of the Delta Conveyance Project with the SSHCP, the table cited in the comment (Table 13-102) provides a consistent overview of the interaction of the Delta Conveyance Project study area with all relevant HCPs. Although this table (titled Summary Table of Conservation Plans that Overlap with the Project Study Area) compares the area of overlap to the entire SSHCP plan area, as stated in Chapter 13, Terrestrial Biological Resources, the area of the SSHCP that is analyzed is limited to PPU 6 and information specific to PPU 6 is presented in Appendix 13D, Overlapping Habitat Conservation Plan Permanent Surface Impacts. The table in Appendix 13D titled Overlapping Habitat Conservation Plan Permanent Surface Impacts-All Project Alternatives presents the impacts of the project alternatives, using best available data, as a proportion of habitat types available within the area of overlap. For agricultural land and grassland, this ranges from less than 0.1% to 2.2%. This approach accurately represents the impacts on available habitat in the overlap area of the project study area and PPU 6. In regard to the assertion that mitigation areas must be located in SSHCP PPU 6, the project is not a covered activity under the SSHCP and therefore not subject to the requirements of the SSHCP. As required by CEQA, the analysis focuses on the impacts of the project on the SSHCP. The location of mitigation areas will be determined with approval of the appropriate regulatory agencies (e.g., CDFW, USFWS, USACE), as described in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic

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	Crane and Swainson's Hawk. Comparing the Delta Conveyance's project area overlap to the entire footprint of the SSHCP is an irrelevant comparison. The only meaningful comparison would be with PPU 6. The overlap with PPU 6 is over 46%, which leaves a very different impression as to the potential level of conflict compared to the 14% overlap with the entire plan area of the SSHCP presented in this DEIR in table 13-102. The biologically relevant overlap is large and concerning. This DEIR is aware of the overlap with PPU 6 but does not highlight it as the relevant unit for comparison but rather includes it in the context of the agricultural land and grassland the SSHCP needs for its conservation strategy (and it does so incorrectly, which will be discussed later): "Approximately 50% of the SSHCP PPU 6 overlaps with the study area." (DEIR, chapter 13-449) This apples to oranges comparison continues in table 13-103 and the discussion of the relationship between the impact acreage of the project and the total acreage of the HCPs, as well as for the acreage of the HCPs within the project area. Table 13-103 showed that, depending on the alternative, the proportion of surface impacts relative to the SSHCP plan area range between 0.1% and 0.2%. Again, we are presented with an extremely low number that would lead one to believe that there is no discernable conflict with the SSHCP - only a 14% plan overlap and an impossibly small 0.1 to 0.2% for surface area of impacts within the SSHCP. But this approach provides little useful information for what the scale of the actual conflict with the SSHCP is. A more appropriate way to understand the conflict is thru the impact of this project on the "feasibility for acquisition" for the SSHCP in PPU 6.	Resources (CMP). The CMP includes multiple mitigation approaches for species such as sandhill crane and Swainson's hawk. For example, sandhill crane habitat would located be on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve (i.e., PPU 6). Similarly, for Swainson's hawk, compensation lands could occur on Bouldin Island or through other site protection instruments, which could include PPU 6. Further detail has been added to Impact BIO-54 to clarify that the CMP contains a commitment to coordinate with the implementing entities of adopted HCPs before decisions are made on acquiring site protection instruments within their respective plan areas. The goal of the coordination is to ensure that DWR's acquisitions to meet mitigation needs do not result in conflicts with these plans and their ability to achieve their biological goals and objectives (Appendix 3F, Site Protection Instruments section). Therefore, doubling the impact footprint, as proposed by the commenter, is not necessary. In regard to providing mitigation within the range of sandhill cranes affected by the project, as described in Mitigation Measure BIO-33 suitable, high-value habitat will be protected and managed to compensate for occupied habitat disturbed by construction noise greater than 50 dBA Leq (1 hour). Enhanced foraging habitat will be located outside the construction-related 50 dBA Leq (1 hour) sound level contour and within 1 mile of the affected habitat to mitigate for construction-related disturbance. Rather than an "apples to oranges comparison," the analysis in Impact BIO-54 presents the area of overlap consistently for all HCPs and the impact acres are analyzed as a proportion of the overlap area. This approach is widely used, based on known information, and is adequate to disclose the impacts under CEQA. The "feasibility for acquisition" approach suggested

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	But before discussing the "feasibility for acquisition," it is necessary to consider whether the habitat acquisition for impacts by the project in the PPU 6 overlap area need to be mitigated within the footprint of PPU 6. Chapter 7 of the SSHCP indicates that 92% of occurrences and almost all of the high population usage roost sites for cranes, and 71% of the Swainson's Hawks occurrences are in PPU 6. Greater Sandhill Cranes forage extensively within a 3.1 mile (5 km radius) of their roost sites (Ivey et al, 2015), and the vast majority of roost sites in the entire SSHCP Area are within PPU 6. Since many of the impacts associated with the Delta Tunnels project would occur within the footprint of the SSHCP and PPU 6, it is important that those impacts also be mitigated within PPU 6 such that the populations that are impacted receive the benefit of the mitigations. This is especially important for the impacts in Stone Lakes National Wildlife Refuge because the crane population there is the most constrained in the region with extensive urbanization to the north and the east. Similarly, the impacts to the Cosumnes River Preserve cranes will go on for more than a decade and using Bouldin Island or other remote locations will provide no relief or compensation for the cranes impacted there. The mitigations need to be provided within the ranges of the cranes that are impacted to compensate the populations impacted. Specifically, foraging habitat within the crane population stronghold in the SSHCP Area needs to be mitigated within that same stronghold; mitigation for foraging habitat loss also should be located within 1.2 miles of an active roost site to be the most effective. Similarly, the impacts to Swainson's Hawks, White- tailed Kite, and Northern Harrier should also be	by the commenter, which is based on available inventory, is not feasible because there is not sufficient information in the SSHCP to calculate the available inventory. The EIR approach using dominant land cover types uses the best available information and meets the needs of CEQA. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available tools and science. In regard to the SSHCP feasibility for acquisition ratio, the location of grassland mitigation would be determined with approval of CDFW and USFWS; much of the mitigation acres will be located outside of the SSHCP plan area at the initial mitigation sites and in areas deemed by the regulatory agencies as suitable for compensatory mitigation. In addition, as stated above, the CMP contains a commitment to coordinate with the implementing entities of adopted HCPs before decisions are made on acquiring site protection instruments within their respective plan areas. (Appendix 3F, Site Protection Instruments section). Coordination with the implementing agencies will help ensure that the project compensatory mitigation would not increase the feasibility for acquisition ratio to a level that conflicts with the SSHCP goals. In regard to the commenter's concern about locating sandhill crane, Swainson's hawk, white-tailed kite, and northern harrier mitigation in PPU 6 or within 1.2 miles of an active roost site, preliminary mitigation sites have been identified in the CMP. However, as stated above, other site protection instruments will also be implemented at locations subject to CDFW approval. Again, as noted earlier, DWR will coordinate with implementing entities of HCPs prior to project construction and mitigation implementation. In regard to Swainson's hawk mitigation elevations, the EIR commits DWR to protecting foraging habitat at elevations equal to or greater than -1 foot

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	mitigated as proximal to the impacts as possible. This means that the habitat acquisition needs of the Delta Conveyance project must be considered along with the project's impact footprint when examining conflict with the SSHCP. This translates to, at a minimum, doubling the impact footprint so that it includes at least a 1:1 mitigation ratio for compensatory habitat acquisition. The Chapter 7 Conservation Strategy of the SSHCP lays out the habitat acquisition targets for each PPU in the Plan Area. For PPU 6, page 7-89 of the SSHCP ("Overview of Conservation Strategy in PPU 6") states: "Approximately 9750 acres will be preserved in PPU 6." According to Table 7-2 ("Summary of SSHCP Preserve System and Existing Preserves by Planning unit") on page 7-63 of the SSHCP, 28,079 acres of PPU 6 are already in existing preserves. And according to section 7.5.2.3 (SSHCP, p. 7-88), there are currently 3,436 acres of low-density development in PPU 6. Simple math (total acreage minus the land already preserved and the land already developed) yields a total of 63,657 acres of available inventory in PPU 6, not accounting for sea level or floodplain restrictions. And it should be noted that Swainson's Hawk mitigation must be located above sea level to satisfy CDFW requirements. Approximately 50% of the SSHCP PPU 6 overlaps with the study area (County of Sacramento et al. 2020: Figure 7-2). The SSHCP habitat conservation goal for PPU 6 of 8,465 acres of agriculture represents 14% of available agricultural land cover and 623 acres of grassland represents 4% of available grassland habitat in PPU 6 (County of Sacramento et al. 2018:7-87–7-88, Table 7-6). (DEIR, chapter 13-449)	NAVD88 or maintaining levees around protected habitat to minimize the risk of flooding and loss of suitable habitat (Attachment 3F-1, Compensatory Mitigation Design Parameters). In regard to the comment that overlapping mitigation may not benefit all species, additional detail has been added to the CMP regarding management of habitats for multiple species. As noted earlier in this comment, coordination would help ensure that the project compensatory mitigation would not increase the feasibility for acquisition ratio to a level that conflicts with the SSHCP goals. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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	Using the citations provided, the way these calculations were executed by taking the 8,466 acres of agricultural land and 623 acres of grassland listed in table 7-6 of the SSHCP and dividing by 58,458 acres of agriculture and 17,633 acres of grassland listed as the "dominant land covers in PPU 6" listed in Chapter 7, page 88 of the SSHCP. But adding 58,458 acres of agricultural land to the 17,633 acres of grassland yields a total of 76,091 acres. As we already know from the math in the last paragraph, the inventory available to the SSHCP in PPU 6 is not more than 63,657 acres, which is 12,434 acres less than 76,091. A closer look at the quote above exposes the problem. Those acreage amounts in those citations were not provided as available inventory but instead as "dominant land covers." To figure out the available inventory one must do the math that we did in the last paragraph, which yielded the 63,957 acres. There is not enough information in the SSHCP to figure out how much agricultural land and grassland is available in PPU 6 because percentages of the dominate land cover numbers (58.458 acres for agriculture and 17,633 acres) are included in the 28,079 acres existing conservation. Since it is not possible to determine which portion of the 63, 657 acres is agricultural land and which is grassland, it makes sense to consider the entire combined 9750 acres in relation to the 63,657 acres, which indicates that for the conservation strategy of the SSHCP to be successful, 15.3% of all available inventory in PPU 6 would need to be acquired. The SSHCP is only allowed to acquire properties to satisfy its habitat mitigation requirements from willing sellers and the reality is that some landowners may wish to sell, and some may not. This uncertainty is encompassed in the concept of the “feasibility for acquisition ratio.” Given the need for willing	

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	sellers, "the feasibility for acquisition ratio" represents how much habitat is available compared to how much habitat is needed for mitigation. If there are 100 acres of inventory, and fifty are needed for mitigation, the “feasibility for acquisition ratio” is 50%. The lower the "feasibility for acquisition ratio," the more likely that enough willing sellers will be found to satisfy the acquisition requirements of the Conservation Strategy of an HCP. The California Department of Fish and Wildlife ("CDFW") maintained during the preparation of the SSHCP that the Plan should strive for a ratio of 15% or less. Beyond increasing the likelihood that enough willing sellers would be available to successfully implement the Conservation Strategy, such a low ratio would go a long way to avoiding what has happened in the Natomas Basin Habitat Conservation Plan where so little inventory can be found for mitigation, which has resulted in exorbitant prices being paid for rice fields. These costs and the lack of availability led to a developer purchasing Swainson’s Hawk mitigation within 200 feet of one of Sacramento Metropolitan Airports runways because little else could be found. The effect on the "feasibility for acquisition ratio" is where the true conflict with the SSHCP becomes clear. As has already been established, the existing “feasibility for acquisition ratio” for the SSHCP for PPU 6 is 15.3%. It is likely that if the land covers (in this case agricultural land and grasslands) were able to be broken out by category (which there is not enough information to do), the feasibility for acquisition for agricultural land in PPU 6 would be quite a bit higher. The range of ground impacts from the Delta Conveyance project within PPU-6	

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	presented in table 13-103 of this DEIR is 192.82 acres to 698.93 for the various alternatives. Those ranges need to be at least doubled to include the biologically appropriate habitat mitigations that need to be acquired within PPU-6. This causes the range to increase from 385.64 acres to 1,397.86 acres (one half for impact and one half for mitigation). Adding this range to the conservation target for the SSHCP in PPU 6 (9,750 acres) yields a range of 9,942.82 acres to 11,147.86 acres. Taking that range and determining the new "feasibility for acquisitions ratio" for the SSHCP combined with the Delta Conveyance projects increases the ratios from the 15.3% without this project to a range of 15.9% to 17.5%. This is the best numerical indication and measure of the conflict with the SSHCP. PPU 6 is already a constrained landscape to work with to achieve 9750 acres of habitat acquisition based on the "feasibility for acquisition ratio" starting out a 15.3%, not accounting for restrictions due to elevation or floodplain. The Delta Conveyance project effectually reduces the available land covers in PPU 6 for mitigation and increases the "feasibility for acquisition ratio." As such, this project conflicts with the SSHCP by driving its already too high "feasibility for acquisition ratio" even higher. Additionally, it is not clear how much overlapping conservation benefit—one habitat type benefitting multiple species—is planned in the proposed habitat acquisition mitigation or is even possible based on what might be available as inventory. The number of acres needed in PPU 6 could increase for the Delta Conveyance Project, making the ratio even worse.	
564-42	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES Delta Conveyance Eminent Domain Will Have a Chilling Effect on Willing	As described in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, the initial mitigation sites would be on lands owned by DWR or acquired from willing landowners and mitigation credits would be purchased from approved banks.

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	Sellers for the SSHCP [South Sacramento Habitat Conservation Plan] The Delta Conveyance project can take land by eminent domain for both the project footprint and for mitigation. The use of eminent domain to condemn properties needed for mitigation could have a substantial chilling effect on the willingness of sellers to participate in the SSHCP or other HCP [Habitat Conservation Plan] similarly affected by the project. A competing project taking land away forcibly with eminent domain for mitigation in the same small area of PPU 6 by the Delta Conveyance project could paint the SSHCP in the same negative light for many prospective sellers. The negative consequences to conservation because of predictable reactions of landowners to widespread use of eminent domain cannot be overstated and it would be a grave mistake to discount them.	The EIR has been revised to include a commitment to coordinate with implementing entities of adopted habitat conservation plans that overlap with the study area before acquiring properties for site protection instruments to ensure the mitigation does not result in conflicts with these plans (Appendix 3F, in the section titled Mitigation Credits and Site Protection Instruments). None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-43	CHAPTER 13: TERRESTRIAL BIOLOGICAL RESOURCES During a long series of terrestrial wildlife meetings for the earlier iteration of the project that was included within the BDCP, stakeholders pushed for Swainson's Hawk and Greater Sandhill Crane mitigation to be done in the footprint of Elk Grove's Sphere of Influence Amendment application that was rejected by the Local Area Formation Commission ("LAFCo") in 2013. The reasoning was that it would be extraordinarily difficult for the SSHCP to acquire mitigation in that footprint because of the inflated land prices there from built up speculative pressure, and this land was prime habitat for Swainson's Hawk, Greater Sandhill Crane, White-tailed Kite, and Northern Harrier; the area is also in immediate threat of being lost in the near future to urbanization.	As described in Appendix 3F, Attachment 3F.1, Compensatory Mitigation Design Parameters, compensatory mitigation for greater sandhill crane and Swainson's hawk will be determined with CDFW approval. Greater sandhill crane roosting habitat will be protected on Bouldin Island or on suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve; foraging habitat will be protected within 2 miles of known roost sites. Swainson's hawk foraging habitat will be protected within 3 miles of a known Swainson's hawk nest tree. It is possible that sites meeting these requirements could be located in the South Sacramento Habitat Conservation Plan footprint, pending CDFW approval. In addition, the EIR includes a commitment to coordinate with implementing entities of adopted habitat conservation plans that overlap with the study area, including the South Sacramento Habitat Conservation Plan, before acquiring properties for site protection instruments to ensure the mitigation does not result in conflicts with these plans (Appendix 3F in

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	It was suggested that purchasing mitigation acreage there would have a greatly reduced effect on the SSHCP because the Plan did not have the financial structure to purchase much in that geography--the fee structure of the SSHCP has the cost of 1,000 such acres amortized over the cost of all of the agricultural mitigation acres. The Environmental Groups promoted the value of creating a greenbelt south of Elk Grove to insulate the habitats found further south from urban pressure and the resultant spike in pricing due to speculation, improving on the SSHCP's chances of acquiring the acres it needs there. It was further argued that this would help with the success of the SSHCP because of imminent urbanization, it could increase the willingness of sellers and maintain the affordability of purchasing mitigation properties. The suggestion was rejected because this geography was not in the legislative boundary of the Delta and therefore would allegedly require legislation to amend that boundary if mitigation was to be contemplated there. And, since it was not within the project area of the NOP of the BDCP, that would need to be redone as well. But now, the Delta Conveyance project, like the Twin Tunnels iteration, is not beholden to the legislative boundary of the Delta and this is no longer a limiting factor. There would be substantial impacts from the construction and operations of the Delta Conveyance project to many of the species covered by the SSHCP, and many of those impacts, and the mitigation for those impacts, would occur within the same "inventory" footprint as the SSHCP, jeopardizing the success of the SSHCP. This suggestion would be a reasonable mitigation for the conflict with the SSHCP and the impacts to species within its footprint.	the section titled Mitigation Credits and Site Protection Instruments).

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564-44	The Environmental Commitment to Manage Invasive Weeds Must Be Broadened: The DEIR makes reference to an environmental commitment to manage for invasive weeds: "Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources (Appendix 3B) would reduce the potential for the introduction and spread of invasive plants by ensuring that equipment used is cleaned and inspected before entering new areas." (DEIR, chapter 3b-27). Yet EC-14 (DEIR, chapter 3b-27) only commits to cleaning and inspecting vehicles that will enter aquatic habitats. It only calls for cleaning of terrestrial vehicles, not the inspecting: "30.) All equipment used for construction and habitat creation, enhancement, and management will be cleaned prior to entering work areas and before moving between work areas. 31.)Equipment to be used in aquatic habitats will be thoroughly cleaned and inspected for aquatic invasive plant propagules and animal species before entering aquatic habitats." (DEIR, chapter 3b-27) Given the threat of transporting terrestrial invasive plants, all equipment needs to be both thoroughly inspected and cleaned irrespective of whether it will be used in terrestrial or aquatic habitats.	Environmental Commitment EC-14 has been revised to clarify that DWR will ensure equipment is cleaned and inspected in both terrestrial and aquatic habitats. None of the revisions to Environmental Commitment EC-14 result in a new significant environmental impact or substantial increase in the severity of an environmental impact or require additional mitigation measures to which DWR was unwilling to commit.

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564-45	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). The DEIR Omits Necessary Discussion Supporting Its Proposed Construction Methods The DSEIR [sic DEIR] describes types of construction activity and the general area where it will take place, but it does not describe the process used to determine whether specific construction activities are best. Unanswered questions include: Is this specific activity or activities, the only viable means to achieve the intended outcome? Were alternatives considered? Is the stated frequency and duration physically feasible? Is it cost effective? What will happen to the project if an unanticipated delay occurs, or unexpected inclement weather, or certain types of construction become obsolete or otherwise no longer viable? There is no consideration of using specially quieted equipment, such as air compressors or engine mufflers, that could be used in heavy and non-heavy construction, or Instances where drilling and casing, or an auger, could be used.	Chapter 3, Description of the Proposed Project and Alternatives, of the EIR provides a description of the construction assumptions that were the basis for the environmental impact analysis. It references the Engineering Project Reports and technical memoranda (available on DWR's website: https://water.ca.gov/Programs/State-Water-Project/Delta-Conveyance/Design-and-Engineering), which include construction and engineering considerations not provided in the Draft EIR that supported project alternative construction and design decisions. CEQA does not require speculation about uncertain events, and an EIR may rely on reasonable construction assumptions. With regard to equipment noise reduction measures, Mitigation Measure NOI-1, is designed to implement a number of actions including best noise control practices. Among these is pile noise level testing, as described in Chapter 3, Description of the Proposed Project and Alternatives, in the section titled Field Investigations. The plan would address feasible measures not listed as items within the measure as written in Chapter 24. As such the noise control items for consideration would include, but not be limited to those items. Different pile driving methods were evaluated for constructability by DCA. The analysis in Chapter 24 includes evaluation of different types of pile drivers depending on the construction application. Construction of sheet-pile walls would primarily involve vibratory driving with possible use of impact driving. The construction of hydrofraise and deep mixing method walls would require an auger drill.
564-46	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward).	The commenter's assertion that the Draft EIR "fails to specify duration and frequency of all the noise and vibration associated with tunnel construction" mischaracterizes the analysis. The analysis in Chapter 24, Noise and Vibration, provides quantitative information on construction duration for each activity.

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	The DEIR Fails to Specify Duration and Frequency of All the Noise and Vibration Associated with Tunnel Construction The DEIR identifies varying measurements of the dBA associated with different construction activities near various features of the tunnel construction. However, throughout Chapter 24 (with three exceptions regarding pile driving), the duration and frequency of these noise or vibration sources includes vague qualifiers that cannot be ascertained without the reader possessing the real-life construction knowledge. Examples include "occasional and intermittent," (p. 24-25), (p. 24- 56); "spread out" over (p. 24-20); "continuous operation during times when in flow rate are needed" (p. 24-25); "some" (p. 24-33); "rarely" (p. 24-13); "vary substantially" (p. 24-11).	The impact conclusions in Chapter 24 are based on information about duration and frequency of construction for each project facility. The durations presented in the analysis are based on engineering data regarding construction schedules and equipment types described in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022f, 2022g). For example, durations of intake construction periods are shown in the table titled Land Use Affected by Noise during Construction of Intakes B and C for Alternative 5 and the table titled Land Use Affected by Noise during Construction of Intakes A, B, and C for Alternative 2a in the Draft EIR. The analysis uses terms related to frequency such as “intermittent” to convey that construction or O&M activities are not a continuous activity relative to sensitive receptors. The analysis suggests that impact driving would rarely be used (e.g., up to 2 minutes per pile for intakes based on geotechnical studies in the engineering project reports, as shown in the table titled Land Use Affected by Noise during Construction of Intakes B and C) in the context of total vibratory driving for the intakes (21 months for each intake as shown in the table titled Land Use Affected by Noise during Construction of Intakes B and C). The impact driving contributes to a finding of a significant impact at intakes, even though impact driving would be used for a much shorter amount of time compared to vibratory driving.
564-47	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). The DEIR/S Makes Assumptions Without Adequate Legal Foundation The DEIR, p. 24-1, "Summary Comparison of Alternatives", states that the comparison of impacts on noise and vibration,	To determine impact significance under CEQA, the analysis in Chapter 24, Noise and Vibration, evaluates sound levels in the context of DWR criteria, and also, as stated in the Section Thresholds of Significance of the Draft EIR, “If these criteria are exceeded, the impact analysis evaluates the temporal frequency, duration, and intensity of construction noise to determine whether a significant noise impact requiring mitigation would occur.” As such, the analysis considered these factors in addition to established standards. In regard to sound level measurements, given the geographic size of the project, it was not feasible to conduct sound level monitoring in all areas

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	for each alternative, purports to provide CEQA findings after all mitigation is applied. (DEIR, p. 24-1 to 24-14). However, DEIR, Table 24, indicates it considers as CEQA compliant, impacts that: " . . Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies." (DEIR, Table 24) Compliance with a general plan is necessary but does not equate to compliance with CEQA. The "Study Area" (DEIR, p. 24-8 to 24-16), reports sound level measurements in Yolo, Alameda, and Solano Counties (DEIR, p. 24-1 to 23). However, this section then reports that "no sound-level measurements were conducted in [Yolo, Alameda, and Solano] County." Instead, the report offers a report of nearby measurements across the Sacramento River, without any supporting data for using such a comparison.	where project-related activities would occur. Monitoring could only be conducted in those locations where field staff had permission to enter for this purpose. Monitoring was conducted within all properties where permission was granted. The 14 monitoring sites were distributed from the north extent of the project area near Hood to the south extent at Clifton Court forebay, which allowed for characterization of the setting in different areas, including populated and unpopulated locations. Among all 14 sites, sound levels were measured in the range of 43.5 to 57.6 dBA 1-hour Leq during daytime hours, 38.4 to 53.7 dBA 1-hour Leq during night hours, and 45.7 to 61.5 dBA Ldn in terms of 24-hour levels. Considering that 14 sites were sampled, the monitoring data presented in the EIR provides a range of sound levels that is reasonably representative of ambient sound levels within rural and small-town settings in the study area
564-48	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). The DEIR Misleadingly References Large Geographical Areas as Homogenous Landscape The DEIR, Appendix 24A, depicts locations of noise and its attenuation emanating from only fourteen points grouped	Regarding sound level measurements, please refer to the previous response to comment 564-47. The commenter is correct that attenuation of noise is affected by elevation changes; however, the commenter's assertion that geographical areas were treated as a homogeneous landscape mischaracterizes the analysis in the Draft EIR, in that modeling accounted for varying ground types (e.g., reduced attenuation across bodies of water such as the Sacramento River and Clifton Court Forebay) and also varying terrain elevation around Stone Lakes National Wildlife Refuge.

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	around three locations, and these measurements are to be deemed adequate for the entire project site in or adjacent to six counties. The depictions do not adequately reflect the level of noise affected by the topography of the land surrounding each source. The sound level contours in Appendix 24A are to represent two to four miles surrounding each source, a large distance. The attenuation of noise will vary according in relation to the flatness or hilliness of the land, its terrain, and built structures and sensitive receptors on it.	As a point of clarification in regard to the part of the comment, "locations of noise and its attenuation emanating from only fourteen points," these are monitoring locations where ambient noise level data were collected. Sound does not emanate from these locations, but from surrounding existing sources of sound, such as traffic, agricultural equipment, or wind in the trees.
564-49	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). The DEIR Does Not Capture the Number of Instances, Duration, and Intensity of Noise from Impact or Vibration Pile Driving Over the Course of Twelve to Fourteen Years Chapter 24 represents that pile driving will only occur between 7:00 a.m. and 7:00 p.m., and on only an "intermittent and temporary basis" within those hours. (DSEIR, [sic DEIR] p. 18-30 to 18-33). These overly general projected hours and duration are inadequate to establish the intensity, attenuation, duration, and source of sound levels that will vary over the course of twelve to fourteen years of construction on a 45-mile-long tunnel. The DEIR indicates that vibratory pile driving methods will be used much more than impact methods. It indicates that geotechnical data will be relied on to determine where gravel and other soil necessitate impact driving, will determine what	Regarding the duration and intensity of noise impacts, please refer to response to comment 564-46. The commenter correctly points out that impact driving would be substantially louder than vibratory driving. Durations of construction equipment use are included in the analysis results tables, as described in the response to comment 564-46. The time estimate of 2 minutes of impact driving per pile is based on geotechnical studies, which indicate that vibratory driving will be done wherever possible, but impact driving cannot be ruled out. Based on the studies presented in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022f, 2022g) and the durations presented in the analysis in Chapter 24, Noise and Vibration, it would be accurate to describe that use of impact drivers would be much less frequent than use of vibratory drivers, as indicated in the EIR. Regarding pile driving for new bridges, the discussion describes the maximum number of days accounting for all bridges, but detailed durations in terms of hours and days are specified for each individual bridge in Appendix 24F, Pile Driving Specifications for New Bridges on Haul Routes. The EIR includes counts of residences where DWR criteria would be exceeded during periods of pile driving. The DWR sound level criteria are

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	method is required, but no estimate of just how many instances that will occur (DEIR p. 19-13 to 19-21). Given the dBA from impact pile driving as opposed to vibratory pile driving, this is inadequate to determine how many dBA will be endured for varying frequencies and duration of time. The difference in dBA created by pile driving using impact methods and vibration methods is enormous. The DEIR indicates that a sound level at Lmax, at 50 feet, drops from 110 dBA during impact driving to 96 dBA during vibration pile driving (DEIR, Table 24-5). This drop is 14 dB, more than tenfold. For this reason, the instances in which pile driving in general, and impact versus vibratory pile driving, should be addressed with utmost accuracy throughout discussions of the intensity, duration, and attenuation of pile driving. Couching usage of impact driving as "some" (DEIR, p. 24-33) "rarely" (DEIR, p. 24-13) or in "limited cases" (DEIR, p. 20-26 to 20-27) is not adequate for a 12-to-14-year project. Pile driving durations of 2 minutes should not be considered minor (DEIR p. 19-18 to 19-20DC). Nor are vibratory methods creating 96 dBA. Road construction would require building of new bridges and reconstruction of some existing bridges for project facility access roads to central conveyance alignment facilities. Piles and piers would be installed for bridge supports and trestles. The total number of days required for pile installation at bridges would vary between 4 and 45 days (DEIR, page 36-13 to 36-24). This unspecified variance is inadequate. The DEIR nowhere reflects the subjective impact the reported dBA will have on surrounding water, land, air, as well as humans and animals. A measurement and real-life analog are a baseline, but inadequate to capture toleration levels of all	based on potential effects to human receptors. As stated in section in Chapter 24 titled Fundamentals of Noise and Vibration of the EIR, "Auditory and non-auditory effects can result from excessive or chronic exposure to elevated noise levels. Auditory effects of noise on people can include temporary or permanent hearing loss. Non-auditory effects of exposure to elevated noise levels include sleep disturbance, speech interference, and psychological effects such as annoyance. Land use compatibility standards for noise typically are based on research related to these non-auditory effects." DWR criteria are based in part on land use compatibility standards used in California. The EIR identifies mitigation options for pile driving, including pre-construction actions, sound level monitoring and best noise control practices. These measures would be effective in reducing levels of noise but would not necessarily reduce the significance of impacts to a less-than-significant level in all cases. As such, the analysis concludes impacts are significant and unavoidable. The analysis in Chapter 24 is focused on modeling and measurement of sound levels and effects on human receptors. The analysis was used to describe effects on biological resources, such as wildlife present in Stone Lakes National Wildlife Refuge, in Chapter 13, Terrestrial Biological Resources.

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	noise and vibration. The DEIR does not even acknowledge the proximity of pile driving to sensitive and protected locations, including Stone Lakes Refuge near the intakes.	
564-50	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). Pile Driving Using Either Method is the Loudest Occurrence of Any Construction Noise, and its Use Must Be More Specifically Captured in the DEIR. Alternative 5 incorporates the noise and vibration that accompany Alternative 1 at Intakes B and C and their intake access roads. In doing so, the DEIR revisits vague reports of anticipated noise and vibration disturbance. Under Alt 1, Intakes B and C will include temporary in-river cofferdams and permanent training walls constructed with interlocking sheet piles, but the number of piles at specific locations is not provided. Pile driving will occur at only one intake structure at a time, but the actual number of these structures, as opposed to an isolated intake, is not provided. Two vibratory pile drivers may be used simultaneously, again, at an unknown number of intake structures. (DEIR, p. 29-22 to 29-38). Vibratory pile drivers will be used for a period up to 225 hours, unless geotechnical analysis indicates pile driving must be by	The analysis of noise and vibration in Chapter 24, Noise and Vibration, quantifies the frequency, duration, and intensity of noise exposure based on engineering data provided in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022f, 2022g). Durations of construction equipment use for pile driving at intakes are included in the analysis results tables, as described in the response to comment 564-46. The assumptions for the pile-driving noise analysis including duration, number of piles, and locations of driving were developed from engineering data presented in the Conceptual Intake Cofferdam Construction technical memorandum (Delta Conveyance Design and Construction Authority 2022a). Sound levels associated with pile driving are depicted geographically in terms of noise contours, which show areas where sound levels would exceed a certain value during construction under various scenarios. For example, the 60 dBA and 50 dBA noise contours for Alternative 5 depicted in Appendix 24A, Sound Level Contour, in the figure titled Sound Level Contours for Bethany Reservoir Alignment Alternative 5, Heavy Equipment for Facility Buildout, including Pile Driving, depict the areas that would potentially receive this level of noise using the methodologies in Chapter 24. As described above the analysis in Chapter 24 provides durations for different construction activities. For example, in the table titled Land Use Affected by Noise during Construction of Intakes B and C, vibratory pile driving for Intakes B and C would be used for the cofferdam, training walls

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	impact method due to hard soil or gravel. The exception for impact driving is acknowledged but not analyzed. Alternative 1 indicates that impact driving is necessary for two minutes at each pile. Again, no estimate of the number of piles is provided. The estimate of the total time used in impact pile driving is 18 hours (DEIR, page 30-1 to 30-11). Given the dB associated with both types of construction, the number of driving sites should be much more exact. Also, if these extreme dBA levels surround a noise source for a four-mile radius, the impact of this noise and attenuation should be included. Measurements of noise and vibration level may be roughly analogized to everyday sources of noise and vibration, but at the extremes captured in the DEIR the effect of a sustained impact is necessary. Starter casings for foundation piers for the intake structures will be installed using vibratory methods over a period of 18 months, but the number of locations is not provided. (DEIR, page 30-35 to 30-38). Vibratory pile driving will also be necessary to install sheet piles for an electrical service building, for a period of two hours, but no location is provided. The DEIR merely states that the location will be "farther away from surrounding receptors." (DEIR, page 30-30 to 30-34). After the construction of the cofferdam and training wall, the balance of the 12- year construction schedule will involve vibratory pier case driving and standard heavy equipment to build the rest of the intake components. This phase of	and foundation piers. Accounting for all of these structures, this is expected to require a total of 21 months of vibratory driving for each intake and would be done simultaneous with other activities to build the intake structure.

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	construction is significant, yet nothing more than this is offered regarding necessary hours over 12 years, or how much will be devoted to impact as opposed to vibratory pile driving. (DEIR, page 30-11 to 30-15).	
564-51	CHAPTER 24: NOISE AND VIBRATION The focus in this section is on the preferred Alternative 5 and Alternative 2a (central alignment through Staten Island and southward). The DEIR Does Not Adequately Describe Noise from Tugboats and Barges Over a Twelve to Fourteen Year Period. Construction will include the use of tugboats and barges, at a dBA of 89 at 50 feet) of a tugboat (DEIR, page 23-19 to 23-28). There is no reference to how often either will be used over twelve to fourteen years, where, and the duration of a single instance of utilization.	Tugboat use is described in the Draft EIR in the section titled Impacts of the Project Alternatives Related to Noise and Vibration in Chapter 24, Noise and Vibration. The analysis indicates that, "assuming a travel speed of 5 knots, noise from three tugs would be noticeable at a shoreline location for approximately 10 minutes for each pass by." The number of roundtrips by alternative is also indicated in text that describes the total number of trips anticipated during the final months of the intake construction to place riprap on the levee.
564-52	CHAPTER 24: NOISE AND VIBRATION The DEIR Does Not Adequately Describe Noise from Pumping Stations. Long term operation of the project would involve the "periodic and sometimes continuous use" these durations are mutually exclusive) of pumps within the Bethany Reservoir Pumping Plant. (p. 24-61). This operation could create a combined sound level of up to 116 dBA with all pumps running at full speed. The DEIR dismisses this projection, claiming without evidence that because the pumps will operate deep within the underground structure, they will not create a significant source of sound, compared to the air handlers required for equipment cooling	The commenter's assertion that the EIR dismisses the level of operational noise is not true. As explained in Chapter 24, Noise and Vibration, noise levels from long-term operation of pumping plants were calculated based on equipment horsepower ratings. The unmitigated sound levels of operation are reported in the EIR to quantify noise emissions consistent with the rest of Chapter 24 and the table results in Appendix 24B, Construction Sound Level Model Predictions. The unmitigated level of 116 dBA requires noise control measures. The decibel level of attenuation that would be achieved by control measures cannot be known at this time, so it is not possible to quantify the level of noise reduction in the EIR. However, in contrast to mobile sources such as heavy trucks, noise from fixed-location sources is considerably easier to mitigate through engineering, and there are many highly effective options to reduce noise for fixed sources such as below-ground installation, silencers, enclosures, and walls. As such,

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	(p. 24-61). There is no data whatsoever supporting this representation.	the analysis of project operations in Chapter 24 states that, "Noise-attenuating measures would be specified and implemented so that facilities are in compliance with local noise level performance standards." Noise level design criteria are included in Table 2 of the DCA technical memorandum, South Delta Pumping Plant Basis of Conceptual Design Criteria. Among the criteria are items related to sound attenuation as follows (Delta Conveyance Design and Construction Authority 2022e): • Provide sound attenuation measures to minimize operational noise such that noise levels at nearby residential noise receptors do not exceed 50 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA Leq during nighttime hours (10:00 p.m. to 7:00 a.m.). • Provide sound attenuating walls to surround noise-producing exterior mechanical and electrical equipment where needed to achieve a noise level less than 50 dB at the South Delta Pumping Plant parcel boundary.
564-53	CHAPTER 24: NOISE AND VIBRATION The DEIR Uses Overly General Language to Describe the Effects of an Additional Intake Alternative 2a Alternative 2a states: "The effects under Alternative 2a would be the same as Alternative 1, except for the addition of Intake A, the additional tunnel from Intake A to Intake B, an extension of the intake haul road to Intake A (including a new bridge over a drainage channel), the Jones Control Structure, the Jones 30 Outlet Structure, the Jones tunnel, and the Delta-Mendota Control Structure. Under this alternative, three intakes would be constructed instead of two, to accommodate the design capacity of 7,500 32 cubic feet per second (cfs) under this alternative. Construction of Alternative 2a would require approximately 13 years to complete." (DEIR, p. 24-45)	The use of cross-references to Alternative 1 is intended to provide useful context for the subsequently discussed alternatives, and to show that alternatives share many features in common with Alternative 1, especially with regards to the proposed intakes. The commenter is correct that the inclusion of a third intake structure under Alternative 2a is a significant addition. As such, the intake was analyzed fully in Chapter 24, Noise and Vibration. For example, the results of the analysis at Intakes A, B, and C shown in the table titled Land Use Affected by Noise during Construction of Intakes A, B, and C describe duration, frequency, and intensity (in terms of residences exceeding DWR criteria) of construction noise at these locations. The discussion of the South Delta facilities for Alternative 2a explains that all features of Alternative 1 would be included. (The results of the Alternative 1 analysis of the Southern Complex are shown in the table titled Land Use Affected by Noise during Construction of the Southern Complex

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	The addition of a whole new intake is too significant to make brief reference to it, as merely an exception to Alternative 1. The DEIR similarly minimizes the noise associated with Alternative 2a again on p. 24-45: "As noted above, the Southern Complex and South Delta Conveyance Facilities would be the same as Alternative 1, with the addition of the Jones Control Structure, Jones tunnel, Jones Outlet Structure and Delta-Mendota Control Structure in the approach channel of Jones Pumping Plant, all of which would be required for a pumping capacity of 7,500 cfs. Construction of the Delta-Mendota Control Structure would require temporary installation of sheet piles for a bypass channel, which would be removed after facility buildout is complete. Pile driving would be done using vibratory methods."	and South Delta Conveyance Facilities.) The pile driving at the Delta-Mendota Control Structure would be added under Alternative 2a, and the results of this analysis are shown in the table titled Land Use Affected by Noise during Construction of the Southern Complex and South Delta Facilities, 7,500 cfs. Sound level modeling includes these additional project features for Alternative 2a. The sound level contours depicting these results for Alternative 2a are found in Appendix 24A, Sound Level Contour, in the figures titled Index of Figures for Sound Level Contours for Central Alignment Alternative 2a, Heavy Equipment for Facility Buildout; Index of Figures for Sound Level Contours for Central Alignment Alternative 2a, Heavy Equipment for Facility Buildout, including Pile Driving; and Index of Figures for Sound Level Contours for Central Alignment Alternative 2a, Bridge, Road, Utility, and SCADA Line Construction.
564-54	CHAPTER 30: CLIMATE CHANGE The Projected Impacts of the Project in Conjunction with the Modeled Effect of Climate Change on Water Flow and Water Quality During the Project's Lifetime Must Be Evaluated Appendix 30-A, Cal Sim 3 Results Sensitivity to 2030 Climate Change and Sea Level Projections reviews the various climate change assumptions that are being used to assess sea level rise, the expected flows in the watershed, and the effect on salinity in the Delta for 2040. The analysis was constructed to compare projected 2040 data with the no project alternative. This appendix notes in paragraph 2, lines 16-17, that "(t)his analysis is not required by CEQA and is not used in support of	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the appropriate use of the CEQA baseline. DWR has exceeded CEQA requirements by evaluating climate change and project impacts in multiple locations in the document using different climate change scenarios. As described in the EIR, the proposed project would need to follow applicable state and federal laws, including requirements set forth in the Bay-Delta Water Quality Control Plan (and its future updates). These requirements are part of the regulatory baseline, and the Bay-Delta Water Quality Control Plan would continue to establish criteria to protect water quality for beneficial uses, such as agriculture, fisheries, and terrestrial species. Appendix 9L, Water Quality Analysis 2040, Appendix 12C, Fish and Aquatic Resources 2040 Analysis and Appendix 13F, Terrestrial Biological Resources 2040 Analysis, evaluate whether any of the impact conclusions

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	the CEQA finding provided in Chapters 7-32 of the Draft Environmental Impact Report EIR." The Delta Conveyance Project DEIR asserts that impacts of climate change are not required by CEQA. That may be true strictly in terms of current CEQA Guidelines but it fails to recognize the relevance and potential significance of the combined impact of the project and climate induced hydrological changes to the Delta environment. However, this is an enormous project that will not be completed until 2040 and involves long-term operational impacts on the Delta ecosystem well into the 21st century. The project proposes to change the location of State Water Project withdrawals so that less water will flow into the Delta from the north. A central environmental issue associated with the project is to what extent the project, by taking more water from the Sacramento at the north end of the Delta and reducing the amount of flow into the north Delta via the Sacramento River,will impact future salinity levels in the Delta and how that will affect the viability of agriculture as well as both fisheries and terrestrial species. This will be an important factor in the deliberations of the State Water Resources Control Board, which must permit the new location for withdrawals by the State Water Project.	documented in Chapter 9, Water Quality, Chapter 12, Fish and Aquatic Resources and Chapter 13, Terrestrial Biological Resources, respectively, would change when considered under future conditions when construction is complete and the project is fully operational and when considering changes to hydrology and sea level rise as a result of climate change. The analyses in these appendices are provided for informational purposes. As discussed in the three appendices, operation of the project is not expected to result in new, different, or more severe effects than those disclosed in Chapters 9, 12 and 13. Appendix 4A, Consideration of 2070 Conditions, identifies whether the type and magnitude of impacts may change from those disclosed for 2040 under a possible 2070 scenario that includes assumptions about climate change and sea level rise in the 2070 timeframe. The appendix describes potential environmental impacts under 2070 conditions for resources including water quality, fish and aquatic resources, terrestrial biological resources, and agricultural resources. Chapter 30, Climate Change, presents the latest climate change science and discusses the impacts of the project alternatives and climate change, and considers the comment's characterization of climate change (i.e., higher air temperatures, varying hydrology and precipitation). Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, summarizes results under additional 2040 climate scenarios to understand anticipated changes in variables relevant to project operations under a broader range of climate scenarios. The project alternatives are evaluated using a projection of future climate that includes changes in temperature, precipitation and hydrology, and sea level rise. Appendix 5A, Modeling Technical Appendix, describes how climate change was modeled for the project.

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564-55	CHAPTER 30: CLIMATE CHANGE The Impacts of Climate Change Must Be Based on Climate Change Modelling that Include Hot/Dry Scenarios in addition to Central Tendency Scenarios that Model Hydrological Conditions Extending to the Project's Lifetime, from 2040 out at Least to 2070 The DEIR concludes that the [P]roject alternatives would not cause substantial increases in chloride concentrations in study area waterbodies relative to existing conditions. As such, the project alternatives would not cause additional exceedance of applicable chloride water quality objectives/criteria by frequency, magnitude, and geographic extent that would result in adverse effects on any beneficial uses of study area waterbodies. Because chloride concentrations are not expected to increase substantially, the project alternatives would not cause long-term degradation of chloride in study area waterbodies that would result in substantially increased risk for adverse effects on any beneficial uses. (Chapter 9, pages 9-86-7) It also models potential 2070 sea level rise models, but only from the perspective of the operational capability of the intake pumps. it concludes that the pumps will be safe from a significant increase in sea level. Yet, climate change models predict more frequent and severe atmospheric river events interspersed with more frequent and severe droughts, both of which will affect the volume and timing of flows into the Delta.	Please see Common Response 9, Hydrologic Modeling and Approach, regarding best available tools, modeled representation of future conditions and climate change, modeled representation of CEQA baseline existing conditions, and climate change assumptions as input into hydrologic model. Common Response 6, Climate Resilience and Adaptation, provides a discussion of climate change assumptions, scenarios, and timeframes DWR selected for inclusion in the EIR. The Draft EIR relied on the best available climate change projections and used the best available scientific methods to incorporate the climate change effects into the Draft EIR modeling. The Draft EIR included analysis of the project under multiple climate projections that differ significantly in the likely projected wetness in the future. The assertion that the future condition projections only account for potential sea level rise changes is not accurate. Project operations under climate change include hydrologic and sea level rise changes, and are evaluated in Chapter 30, Climate Change, and in Appendix 4A, Consideration of 2070 Conditions. Chapter 30 and Appendix 4A discuss potential future conditions projected for both hydrology, such as precipitation and temperature and sea level rise. DWR used the H++ scenario for the sea level rise given the long-term use of the project as infrastructure that may be subject to climate change and potentially extreme scenarios.

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	The Bureau of Reclamation has downscaled a global climate model for regional planning using the CalSim3 model and developed five different climate scenarios, including Warm-Wet, Warm-Dry, Hot-Wet, Hot-Dry and Central Tendency climate scenarios and applied it to the American River Basin. (Bureau of Reclamation, Region 10, "American River Basin Study, August 2022, page ES-12). The Water Forum, a Sacramento-based organization concerned with both water sustainability and lower American River health, has utilized the Bureau's climate model to further model the impacts of the Hot-Dry climate change scenario for the American River Basin with respect to how that might impact Folsom Reservoir storge and flows and temperatures in the Lower American River. The results translate into more drought years, larger flood events and higher water temperatures in the lower American River (Water Forum, "Impacts of Growth and Climate Change on Water Supply Reliability and River Health", study not yet released). Though technically complicated, we believe that this approach can and shouldbe expanded to include climate change impacts on water storage and flows from the Sacramento River Basin into the North Delta. It is essential that the impacts associated with the proposed new North Delta intake diversions be modelled not just under current conditions but under both central tendency and hot/dry modelling scenarios extending out to at least to 2070. When combined with moderate to high sea level rise scenarios in climate models, the environmental analysis of the project will provide a necessary and much more complete scenario of	

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	the range of impacts of the project on the Delta that is essential to informed decision-making about the project.	
564-56	This concludes the comments of our environmental organizations. Please know that the Delta Conveyance is a transformative and controversial project for the State of California that will benefit some areas of the state at potentially significant cost to other areas of the state. As we and other commenters will undoubtedly document, this environmental document, together with its length and confusing organization, has significant errors and omissions that do not well serve the public interest. It behooves the sponsors to diligently pursue a thoughtful and diligent effort to improve the analysis and effectively communicate the project's impacts.	This comment is a conclusory summary. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the length and complexity of the EIR. The comment does not specify what errors and omissions should be corrected. Responses to detailed comments are provided herein. The EIR has been prepared in accordance with CEQA and adequately discloses the potential, scope, severity, and magnitude of potential impacts for the environmental resources analyzed.
564-57	[ATT 1: Mortality of Cranes and Waterfowl from Power Line Collisions in the San Luis Valley, Colorado.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
564-58	[ATT 2: Central Valley Joint Venture 2006 Implementation Plan – Conserving Bird Habitat.]	The commenter provided this attachment for reference purposes in support of the comments provided in Attachment 4. Those comments are addressed in the responses to Attachment 4 of the commenter's letter.
564-59	[ATT 3: Near-ultraviolet light reduced Sandhill Crane collisions with a power line by 98%.]	The commenter provided this attachment for reference purposes in support of the comments provided in Attachment 4. Those comments are addressed in the responses to Attachment 4 of the commenter's letter.
564-60	[ATT 4:] I am providing my comments on impacts and mitigation of Sandhill Cranes (Antigone canadensis; family Gruidae) addressed the Delta Conveyance Project Public Draft Environmental Impact Report (DEIR). I am focusing my comments on the Greater Sandhill Crane subspecies which is a "no take" species by virtue of their California Fully Protected Species status. For Fully Protected Species, California Fish and	This information describes the legal status of the greater sandhill crane and the key points addressed in the attachment. It is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	Game code section 86 states: This is a high bar in that no individuals that are Fully Protected can be killed during any phase of the construction and the operation of the Delta Conveyance project. “Take”” as defined by section 86 must be avoided in all circumstances and it is not acceptable to provide mitigation for incidental take except within the construct of a state approved Natural Communities Conservation Plan (NCCP). This project is not an NCCP, but rather a huge construction project that is regional in scope. The Greater Sandhill Crane is also protected as a threatened species under the California Endangered Species Act (CESA) which defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The big additional protection provided by CESA is that the species is not to be harmed. But unlike “Fully Protected Species” status, incidental take (harm in this case) can be mitigated. This difference in definitions explains why avoidance methods are being employed in the hopes that no Greater Sandhill Cranes are killed during the construction and operation of the project (Fully Protected Species status) and why land acquisition mitigations are being provided for the loss of Greater Sandhill Crane habitat (to address “harm,” CESA). My review will focus on whether the avoidance efforts are sufficient to ensure that no Greater Sandhill Cranes will be killed by any facets of the construction or operation of this project, and whether the land acquisition mitigations provided are adequate to address the harm caused by the project.	
564-61	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat	Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within

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	The DEIR describes data used to develop modeled roosting and foraging Sandhill Crane habitat for greater and Lesser Sandhill Cranes (Appendix 13B, pages 13B-375-380 & pages 13B-386-390). These models are flawed because they primarily use my data on roost site locations (cited as Ivey et al. 2016) which were mapped from 2002 – 2013, data that is from 9 to 20 years old. Although the permanent roost sites are still in place, it is highly unlikely that many of the mapped temporary roost sites are still available on the landscape today. To be more precise about impacts to Sandhill Crane habitat and mitigation needs, new surveys of roost sites should be conducted before defining and implementing habitat mitigation for Sandhill Cranes.	the study area. Please see response to comment 564-33 regarding the use of existing temporary roost site data versus data that will be collected during surveys conducted both prior to and annually during construction. Mitigation Measure BIO-33 requires surveys to be conducted to determine where sandhill cranes are roosting and foraging. These surveys will confirm the scope of the impacts, which will be used to calculate the amount of required mitigation using established performance standards in the Compensatory Mitigation Plan.
564-62	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat The DEIR describes data used to develop modeled roosting and foraging Sandhill Crane habitat for greater and Lesser Sandhill Cranes (Appendix 13B, pages 13B-375-380 & pages 13B-386-390). The DEIR's modeling approach for Greater Sandhill Crane habitat is particularly unreliable because of behavioral differences in the two subspecies. Because Greater Sandhill Cranes show very high fidelity to wintering sites, they are pretty much restricted to permanent (annually dependable) roost sites and are much less likely to use temporary sites unless they are very close to permanent roost sites (within 5 km; Ivey et al. 2015). Therefore, the actual landscape of	Although the model may overestimate habitat for greater sandhill crane, as the commenter suggests, temporary roost sites were included in both the greater sandhill crane and lesser sandhill crane habitat models to provide a conservative estimate of additional areas where sandhill cranes may roost under suitable land management for these subspecies. Mitigation Measure BIO-33 requires surveys to be conducted to determine where sandhill cranes are roosting and foraging. As described in Chapter 13, Terrestrial Biological Resources, in the Methods Used to Assess Impacts on Special-Status Species section, surveys are not limited to modeled habitat but will be conducted in all suitable habitat for roosting and foraging by sandhill cranes.

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	modeled habitat for Greater Sandhill Cranes should be re-mapped using only the permanent roost sites, buffered by 5 km of potential foraging habitat (excluding incompatible crop types and other non-foraging habitats) and such a model would likely reduce modeled habitat acreage to at least half of the current model.	
564-63	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat The DEIR describes data used to develop modeled roosting and foraging Sandhill Crane habitat for greater and Lesser Sandhill Cranes (Appendix 13B, pages 13B-375-380 & pages 13B-386-390). Appendix 13B provide figures depicting the modeled foraging and roosting habitat for greater and Lesser Sandhill Cranes (Figures 13B.58-1, page 13B-383 and 13B,59-1, page 13B-393, respectively). These models should be recreated using current information, as I state above. Additionally, Figure 13B-58-1, the model for Greater Sandhill Cranes, does not include the habitat areas at the very south end of the project boundary (as the Lesser Sandhill Crane model does). The San Joaquin River National Wildlife Refuge does manage permanent roost sites (as mapped in Figure 13B.59-1) which support Greater Sandhill Crane, so that area should also be mapped in the updated model for Greater Sandhill Cranes.	Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. The figure titled Greater Sandhill Crane Modeled Habitat in the Study Area in Appendix 13B, Species Accounts, has been updated to include the San Joaquin River National Wildlife permanent roost sites and associated foraging habitat for greater sandhill crane. This modeled habitat does not overlap with the footprints under any project alternatives and therefore does not affect the conclusion of no significant impact for Impact BIO-33. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-64	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat	The excerpted text from Chapter 13, Terrestrial Biological Resources, that is referenced in the comment describes the project construction features that would impact modeled habitat for greater and lesser sandhill cranes.

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	Chapter 13, page 13-264, lines 25-32 states: "The loss of both greater and Lesser Sandhill Crane foraging habitat under the eastern alignment alternatives (Alternatives 3, 4a, 4b and 4c) and the Bethany Reservoir alignment alternative (Alternative 5) would result from the construction of shafts located on New Hope Tract, Canal Tract, Terminous Tract, King Island, Lower Roberts Island, and Upper Jones Tract (both the eastern alignment and Bethany Reservoir alignment locations on Upper Jones Tract). Additional impacts on modeled foraging habitat for the Lesser Sandhill Crane subspecies would result from the construction of the Southern Complex and associated new SCADA lines (Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c; Appendix 13C)." The DEIR apparently fails to acknowledge the additional loss of 621.55 acres of Sandhill Crane agricultural foraging habitat on Bouldin Island for wetland mitigation in the CEQA conclusion which considers Sandhill Crane habitat losses after mitigation to be "less than significant." The Bouldin Island habitat loss acreage should also be fully mitigated.	Chapter 13 also discloses the impacts on sandhill crane foraging habitat from the implementation of the Compensatory Mitigation Plan (Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources), which are presented under the section title Mitigation Impacts and include impacts from the creation of wetlands on Bouldin Island. The implementation of the CMP will offset the loss of sandhill crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve. The CMP will also serve to protect and manage sandhill crane foraging habitat associated with the new roost sites in perpetuity. Furthermore, as described in Chapter 13 and CMP-0 in Attachment 3F.1, any habitat loss or conversions associated with CMP site development, which includes Bouldin Island, will be accounted for so that there will be no net loss in habitat value for a species. Therefore, the EIR fully mitigates for sandhill crane habitat loss from project construction and CMP site development and reduces any sandhill crane habitat loss to less than significant.
564-65	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Chapter 13, page 13-267, lines 44-46 state: “At the north Delta intakes, in-water pile driving required for the construction of cofferdams would be restricted to occur between June 15 and October 31, and therefore could overlap with up to 1.5 months of the year when cranes are present in the study area (September 15 through March 15).	In regard to the work window for in-water pile driving at the north Delta intakes, the work window is heavily restricted by work windows for fish, and further reducing the period when pile driving could occur would result in a longer overall time frame for constructing the intakes. Mitigation Measure BIO-33 describes the construction activities that DWR can commit to conducting outside of the September 15 through March 15 sandhill crane wintering season. Furthermore, Mitigation Measure BIO-33 identifies other construction components that DWR cannot commit to at this time but may feasibly construct when cranes are not present in the Delta.

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	This overlap in time between the construction noise and Sandhill Crane wintering times could displace the Greater Sandhill Cranes using Stone Lakes NWR and could cause harm (take) to that group of birds. The work should be planned to begin 1.5 months earlier, if possible and conclude before September 15.	Mitigation Measure BIO-33 also includes a commitment to, where feasible, minimize new sources of noise or other major disturbances that cannot be conducted outside the winter season by starting construction, at a minimum, 14 days before September 15 or 14 days after March 15, such that disturbances are not introduced after the sandhill cranes have arrived in the study area. As described in Chapter 13, Terrestrial Biological Resources, pile driving test studies (which will be conducted outside of the September 15 through March 15 wintering season) will provide more detailed information about how and at what levels sound is transmitted from pile driving at the intake locations and the sound barrier installation methods and locations that would be most effective in reducing construction-related sound levels. Furthermore, as described in Mitigation Measure BIO-33, DWR will monitor noise levels and mitigate for the displacement of sandhill cranes from habitat that is impacted by sound levels greater than 50 dBA.
564-66	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Chapter 13, page 13-274: The Compensatory Mitigation Plan (CMP) for Sandhill Cranes states that CMP-18a would offset the loss of Sandhill Crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes NWR and Cosumnes River Preserve and managing these areas in perpetuity. If a new roost site is to be provided at Bouldin Island, it should be placed towards the southern end of the island to allow cranes access to additional foraging areas and lessening overlap of foraging habitat with cranes roosting on Staten	Please see the Site Selection Criteria section in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, for a discussion of how the initial mitigation sites were selected (e.g., existing hydrology, land cover). Please also see response to comment 564-38 regarding the level of detail available at this phase of project planning for the Bouldin Island initial mitigation sites and for the site protection instruments that would be used to manage property between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the components of the CMP and Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and Common Response 11 regarding the adequacy of mitigation under CEQA.

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	Island. If a new roost is to be provided between Stone Lakes National Wildlife Refuge (SLNWR) and Cosumnes River Preserve (CRP), it should be placed within the approved SLNWR boundary to the west edge (near Snodgrass Slough) to give cranes access to additional foraging areas that don't overlap with areas used by cranes roosting on SLNWR or CRP.	
564-67	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Chapter 13, page 13-274: The Compensatory Mitigation Plan (CMP) for Sandhill Cranes states that CMP-18a would offset the loss of Sandhill Crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes NWR and Cosumnes River Preserve and managing these areas in perpetuity. This CMP should be specific, not vague, as it states: "Roosting habitat may be created on Bouldin Island or in suitable lands that provide connectivity between the Stone Lakes National Wildlife Refuge [NWR] boundary and the Cosumnes River Preserve, subject to CDFW approval." It appears, based on Table 3F-4 that Bouldin Island has already been selected to provide a new roost site to meet the CMP standard. However, because of direct impacts to Sandhill Crane habitats on both Bouldin Island and the Twin Cities Complex, I would advise providing two new permanent 40-acre or larger roost sites, one at each location to ensure that the local cranes that are impacted by the project are benefited. A new roost site at Bouldin Island will not benefit cranes impacted between Cosumnes River Preserve and Stone Lakes NWR.	Please see response to comment 564-38 regarding the level of detail in the analysis of compensatory mitigation locations for sandhill crane, the selection of Bouldin Island initial mitigation sites, the site protection instruments that would be used to manage property between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve, and the acquisition, management, and location of roosting and foraging habitat to compensate for habitat temporarily impacted by construction-related noise disturbance.

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564-68	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Appendix 3F, page 3F.1-7, CMP 18b states: "Protect high- to very high-value foraging habitat for Greater Sandhill Crane (corn, rice, wheat, and freshwater emergent wetlands), with at least 80% maintained in very high-value types (corn and rice) in any given year, subject to CDFW approval. This foraging habitat will be within 2 miles of known roost sites and will consider sea level rise and local seasonal flood events, and the location of foraging habitat loss. The patch size of protected cultivated lands will be at least 160 acres." This protected foraging habitat should be within 2 miles of new project roost sites to maximize the benefits of the new roosts. Otherwise, there is no guarantee that much [of] the foraging habitats around the new roosts will remain in compatible crop types.	CMP-18b has been revised to protect foraging habitat within 2 miles of new project roost sites. This change does not alter the conclusion of less than significant for Impact BIO-33 and none of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-69	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Pages 13-273-274: The CEQA Conclusion is that the loss of habitat from the construction of the project alternatives, and the potential for the disruption of normal behaviors from construction, operations, and maintenance activities on Greater Sandhill Crane and Lesser Sandhill Crane would be significant (page 13-273, lines 25-36) and that the implementation of the CMP [Compensatory Mitigation Plan] would be required to offset the loss of habitat which would reduce the impact associated with habitat loss to less than	In Chapter 13, Terrestrial Biological Resources, the table titled Comparison of Impacts on Terrestrial Biological Resources by Alternative (acres/CEQA findings after mitigation) presents the range of impacts on modeled sandhill crane habitat by Alternative before mitigation and the CEQA findings after mitigation. Proposed mitigation for impacts on sandhill crane are presented in Mitigation Measure BIO-33, in the Compensatory Mitigation Plan (CMP) in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, and in Attachment 3F-1, Compensatory Mitigation Design Parameters. As described in Impact BIO-33, the implementation of the CMP will offset the loss of greater sandhill crane and lesser sandhill crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve.

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	significant (page 13-273, lines 37-41). Chapter 13, Page 13-3, Table 13-0 indicates a net loss of 1,427.66 acres of modeled Sandhill Crane habitat, after mitigation, and declares this loss would be “less than significant” after mitigation. This loss does not apparently include the additional foraging habitat loss impact of 621.55 acres from wetland mitigation from Bouldin Island. That acreage should be added to the impacts to Sandhill Crane foraging habitat from all alternatives.	Similarly, Impact BIO-33 describes how the CMP will offset the loss of sandhill crane foraging habitat. CMP-0 General Design Guidelines in Attachment 3F-1 states that any habitat conversions associated with site development will be accounted for so there would be no net loss in habitat value for species.
564-70	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Pages 13-273-274: The CEQA Conclusion is that the loss of habitat from the construction of the project alternatives, and the potential for the disruption of normal behaviors from construction, operations, and maintenance activities on Greater Sandhill Crane and Lesser Sandhill Crane would be significant (page 13-273, lines 25-36) and that the implementation of the CMP [Compensatory Mitigation Plan] would be required to offset the loss of habitat which would reduce the impact associated with habitat loss to less than significant (page 13-273, lines 37-41). Chapter 13, Page 13-3, Table 13-0 indicates a net loss of 1,427.66 acres of modeled Sandhill Crane habitat, after mitigation, and declares this loss would be "less than significant" after mitigation. The CEQA conclusion that this lost acreage, after mitigation, is less than significant to Greater Sandhill Crane habitat is flawed, especially considering the additional loss from habitat mitigation at Bouldin Island. This habitat loss is a much higher percentage of Greater Sandhill Crane habitat, because the	Please refer to the response to comment 564-69 regarding the table titled Comparison of Impacts on Terrestrial Biological Resources by Alternative (acres/CEQA findings after mitigation), which presents the range of impacts on modeled sandhill crane habitat and the CEQA findings after mitigation. Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, has been updated to provide the ratio of compensation for impacts on greater sandhill crane habitat. Appendix 3F, Attachment 3F-1, Compensatory Mitigation Design Parameters, describes the design commitments and guidelines for compensation for impacted greater sandhill crane habitat, including maintaining at least 80% of lands in very high value crop types in any given year. As described in Appendix 3F, compensation lands would be protected in perpetuity. Please also see response to comment 564-68 regarding the revision to CMP18b (Attachment 3F-1) to protect foraging habitat within 2 miles of new project roost sites. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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	habitat model includes landscapes surrounding temporary roost sites, data which is very outdated (as I previously described). Also, given the continuing trend of conversion to incompatible crops in the Delta Region, by the time the mitigation is in place, the impact of the loss of 1,427.66 acres (+621.55 acres on Bouldin Island) be even higher. To best protect impacts to local Greater Sandhill Cranes, I would advise full mitigation for this acreage and placing it within 2 miles of new protected and managed in perpetuity roost sites with the foraging habitat also protected by prescribed site protection instruments for Sandhill Cranes.	
564-71	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Pages 13-273-274: The CEQA Conclusion is that the loss of habitat from the construction of the project alternatives, and the potential for the disruption of normal behaviors from construction, operations, and maintenance activities on Greater Sandhill Crane and Lesser Sandhill Crane would be significant (page 13-273, lines 25-36) and that the implementation of the CMP [Compensatory Mitigation Plan] would be required to offset the loss of habitat which would reduce the impact associated with habitat loss to less than significant (page 13-273, lines 37-41). Chapter 13, Page 13-3, Table 13-0 indicates a net loss of 1,427.66 acres of modeled Sandhill Crane habitat, after mitigation, and declares this loss would be "less than significant" after mitigation. The contention that any loss of Sandhill Crane habitat in the study area is less than significant fails to consider that capacities of existing wintering sites to support Sandhill Cranes	Please refer to the response to comment 564-69 regarding the table titled Comparison of Impacts on Terrestrial Biological Resources by Alternative (acres/CEQA findings after mitigation) and the proposed mitigation for impacts on sandhill crane presented in Impact BIO-33 and in the Compensatory Mitigation Plan in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, and Attachment 3F-1, Compensatory Mitigation Design Parameters, which show that greater sandhill crane habitat losses from construction of the project and construction related to the Compensatory Mitigation Plan are fully mitigated and will be managed and protected in perpetuity.

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	are threatened by habitat loss, which is occurring throughout the Central Valley (Ivey et al. 2014). The Delta is certainly under the greatest threat due to pressures from expanding urban areas and is losing habitat (grain fields) to incompatible permanent crops faster than other regions (estimated at 18.3% by 2040; Central Valley Joint Venture 2006:79), which could contribute to a reduction of the population. The Delta Greater Sandhill Cranes are already stressed by such habitat losses and so the effects of additional habitat loss will add risk to the population's future viability and cause them harm, which is take. All habitat losses should be fully mitigated.	
564-72	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Chapter 13, page 13-274, lines 39-41 states "Foraging habitat protected for 39 Swainson's hawk (Appendix 3F, Attachment 3F.1, Table 3F.1-3, CMP-19b: Swainson's Hawk 40 Foraging Habitat) would also benefit lesser sandhill crane. Foraging habitat protected for Swainson's Hawk would only benefit Lesser Sandhill Cranes if it was placed within 10 km of existing permanent roost sites. CMP-19b [Compensatory Mitigation Plan] allows habitat to be provided "within 50 miles of the project footprint" which at that distance [is] not available to Lesser Sandhill Cranes. Additionally, the focus will be on protecting habitats at "elevations equal or greater than -1 foot," which excludes much of the key permanent roost sites in the core of the Delta where the largest numbers of Sandhill Cranes occur.	Chapter 13, Terrestrial Biological Resources, has been revised to clarify that foraging habitat protected and managed for Swainson's hawk may also benefit lesser sandhill crane if it occurs in the winter crane use area. CMP-19b has been revised to more clearly state that compensation lands for Swainson's hawk may be located at elevations lower than -1-foot NAVD88 and that levees would be maintained around protected habitat. Therefore, Swainson's hawk mitigation lands could be located in the central Delta, some of which would also provide foraging habitat for lesser sandhill cranes. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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564-73	[ATT 4:] Impacts on Sandhill Crane Modeled Habitat Chapter 13, page 13-274, lines 39-41 states "Foraging habitat protected for 39 Swainson's hawk (Appendix 3F, Attachment 3F.1, Table 3F.1-3, CMP-19b: Swainson's Hawk 40 Foraging Habitat) would also benefit lesser sandhill crane. The values of crops selected for Swainson's Hawk (Appendix 13B, page 13B-488, Table 13b.72-1) are not the same as for Sandhill Cranes' high value grain crops (Appendix 13B, page 13B-379, Table 13B-58-1) which are low value for Swainson's Hawks. For cranes, high value alfalfa is a medium value Sandhill Crane crop, and grains are considered low value crops for Swainson's Hawks, and CMP [Compensatory Mitigation Plan] 19a (Appendix 3F, page 3F.1-9) "no more than 15% of Swainson's hawk mitigation lands will be in low value foraging habitat (grain crops) on an annual basis" reducing the value of Swainson's Hawk conservation habitat to cranes. Therefore, benefits to Sandhill Cranes would be very limited from Swainson's Hawk habitat conservation and not guaranteed to be where cranes can utilize these habitats and should not be considered as mitigation for crane habitat loss as such mitigation benefits to cranes will likely be insignificant.	The text that the commenter references in Chapter 13, Terrestrial Biological Resources, states that foraging habitat protected for Swainson's hawk would also benefit lesser sandhill crane. However, it then refers to the crop values presented for greater sandhill cranes in Appendix 13B, Species Accounts, in the table titled Lesser Sandhill Crane Foraging Habitat Value Classes. The crop values in the greater sandhill crane table reflect that alfalfa is a medium-value crop, and Chapter 13 does not propose that lands conserved and managed for Swainson's hawk would provide high-value habitat for the greater sandhill crane subspecies. However, as described in Appendix 13B, in the table titled Lesser Sandhill Crane Foraging Habitat Value Classes, alfalfa is a high-value crop for the lesser sandhill crane subspecies. In addition, Littlefield and Ivey (2000) describe alfalfa as an essential habitat component," including "grain crops for obtaining sufficient carbohydrates, and grasslands, pastures, or alfalfa for obtaining protein, calcium, and other essential nutrients." Compensation for lesser sandhill crane impacts does not rely solely on the mitigation for Swainson's hawk in CMP-19b (Appendix 3F, Attachment 3F-1, Compensatory Mitigation Design Parameters). Please also refer to the response to comment 564-72 regarding the potential for Swainson's hawk compensation lands to also benefit lesser sandhill crane. Proposed mitigation for impacts on sandhill crane are presented in Impact BIO-33 and in the Compensatory Mitigation Plan in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, and Attachment 3F-1.
564-74	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines	Chapter 13, Terrestrial Biological Resources, has been revised to clarify that 1.2 miles represents the average flight distance of greater sandhill cranes between foraging and roost sites, consistent with Ivey et al. 2015. None of the revisions described in the EIR resulted in a new significant

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	Chapter 13, Page 13-271, lines 36-39 states: "Because most Greater Sandhill Crane movement in the Delta occurs within approximately 1.2 miles from their primary roost sites (Ivey et al. 2015:523), the proximity of aboveground lines to known roost sites is a key issue in evaluating collision risk (Morkill and Anderson 1990:8; Hays et al. 2021:1445)." The statement above is misleading. The 1.2 miles quotation from my PhD study is the average flight distance of Greater Sandhill Cranes from roosts to foraging sites, not necessary "most" flight movements. My survey sample to collect these flight distance data was limited to 33 Greater Sandhill Cranes (about 1% of the Delta flock) and this small subset of the population does not likely reflect the entire range of distances Greater Sandhill Cranes travel.	environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit. The impact analysis for greater sandhill crane presented in Chapter 13 does not limit the analysis of potential effects to foraging habitat within 1.2 miles of roost sites but rather considers areas within 3 miles of known roost sites, which accounted for 95% of greater sandhill crane commuting flights between roosting and foraging sites (Ivey et al. 2015). Although the sample of cranes used in the study was not a census of all greater sandhill cranes in the Delta, these data represent the best available information on sandhill crane movement in the Delta region, and Ivey et al. 2015 state that these data have "important implications for […] habitat conservation and management in this region."
564-75	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, Page 13-271, lines 36-39 states: "Because most Greater Sandhill Crane movement in the Delta occurs within approximately 1.2 miles from their primary roost sites (Ivey et al. 2015:523), the proximity of aboveground lines to known roost sites is a key issue in evaluating collision risk (Morkill and Anderson 1990:8; Hays et al. 2021:1445)." The longest foraging flights for greaters in my study were 9 km (5.6 miles). Although the risk of power line collisions and mortalities likely diminishes with distance, there is still always risk of take of Greater Sandhill Cranes at distances much	Please refer to response to comment 564-34 regarding the use of a 5-km commute distance between roosts and foraging habitat and the adequacy of the CEQA analysis.

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	further than 1.2 miles. The DEIR should err on the side of Sandhill Cranes by extending the risk area to 9 km in consideration of locations of power line features. Otherwise, there would still be a risk of take of Greater Sandhill Cranes from power line collisions.	
564-76	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, Page 13-271, lines 36-39 states: "Because most Greater Sandhill Crane movement in the Delta occurs within approximately 1.2 miles from their primary roost sites (Ivey et al. 2015:523), the proximity of aboveground lines to known roost sites is a key issue in evaluating collision risk (Morkill and Anderson 1990:8; Hays et al. 2021:1445)." Such power line mortality risk is exacerbated by the regular occurrence of periods of dense fog in the Delta which increases mortality risk from collision with power lines (Chapter 13, Page 13-271, lines 39-41).	The commenter provided a portion of the text from Chapter 13, Terrestrial Biological Resources, Impact BIO-33 as an introduction to additional comments in Attachment 4. This is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
564-77	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-272, lines 13-19 state: “The project has been designed to avoid death or injury of Greater Sandhill Crane (or any other actions defined as “take” as defined by Section 86 of the California Fish and Game Code). To the maximum extent feasible, existing power lines and underground conduit would be used under all project	Please refer to response to comment 564-34 regarding the use of a 5-km commute distance between roosts and foraging habitat and the adequacy of the CEQA analysis.

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	alternatives. In order to avoid impacts on habitat, the project would not install new overhead power lines or SCADA routes in sensitive areas for Greater Sandhill Crane." The DEIR's basic assumptions of the Greater Sandhill Crane use areas being focused on a 3-mile zone around existing roost sites is flawed, as mortality risks to Greater Sandhill Cranes extend well beyond that zone. Also, use of existing lines (which pose a risk to cranes) while might lessen risk of take, it does not negate the potential for take of this species. The sensitive areas for Greater Sandhill Cranes should be defined as within 9 km of roost sites (see my comments below). [see comment 78]	
564-78	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-272, lines 20-25 state: "Most Greater Sandhill Crane movement in the Delta occurs within approximately 1.2 miles of their primary roost sites (Ivey et al. 2015:523) and Brown et al. (1987:131) found that no Sandhill Crane collisions occurred where distances from power lines to bird use areas were greater than or equal to 1 mile (Avian Power Line Interaction Committee 2012:50). All proposed new aboveground towers and associated SCADA and transmission lines would be located at least 3 miles or more from the nearest known Greater Sandhill Crane roost site under all alternatives." The statement about Brown et al. 1987 findings is apparently intended to support using the 3 mile area that the DEIR emphasizes for mitigation considerations for Greater Sandhill	Please refer to response to comment 564-34 regarding the use of a 5-km commute distance between roosts and foraging habitat and the adequacy of the CEQA analysis.

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	Cranes; however, the "bird-use areas" considered in that paper, include both roost sites and foraging areas and the foraging areas can be much further than a mile from roost sites, so using their paper to imply that a smaller risk area is valid is flawed logic. Again, I suggest the DEIR adopt a 9 km standard for use in defining Greater Sandhill Crane mitigation.	
564-79	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-273, lines 4-5 state: "Replacement aboveground transmission lines along Franklin Road would be placed at the same vertical height as the existing lines on the opposite side of the tower." This statement apparently assumes that adding additional lines to existing lines "at the same vertical height as the existing lines" will not increase mortality risk for Greater Sandhill Cranes. This isn't logical, as more lines in the flight path would likely increase risk of collisions. Brown et al. (1987) reported that mortalities increased when an additional line span was added in their study. Adding new line spans to lines within Sandhill Crane use areas (such as Franklin Road which transects Stone Lakes NWR) could lead to increased risk of take of Greater Sandhill Cranes.	Regarding the placement of additional transmission lines at the same vertical height as the existing lines, the sentence referenced by the commenter is a portion of the larger description and analysis of project-related transmission and SCADA lines. The purpose of the statement in the EIR is to describe in sufficient detail where transmission lines would be located and measures that have been implemented in the design and placement of lines to minimize effects on avian species during project planning. Adding a new line to existing towers with a line at the same height as an existing line, would reduce potential effects on avian species, including sandhill cranes, in comparison to constructing a new span (a new line in a location without an existing powerline) and is consistent with APLIC guidance (2006, 2012). Please see response to comment 564-34 regarding the reasonable assessment of foreseeable impacts under CEQA, the reasonable measures to minimize the risk of avian collisions with power and SCADA lines that are consistent with APLIC recommendations (2006, 2012), and the determination that the risk of take would not increase.
564-80	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines To effectively minimize risk of take of Greater Sandhill Cranes,	Please refer to response to comment 564-34 regarding the use of a 5-km commute distance between roosts and foraging habitat and the adequacy of the CEQA analysis.

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	the DEIR should use a 9 km standard in planning placement of new lines and associated SCADA and transmission lines.	
564-81	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines The new 20-meter transmission line on Lower Roberts Island would increase risk of take of Greater Sandhill Cranes and needs to be considered in determining measures to prevent take.	The transmission line on Lower Roberts Island is described in Chapter 13, Terrestrial Biological Resources, in Impact BIO 33, and is included in the impact analyses for both subspecies. Please see response to comment 564-34 regarding the impact analysis in BIO-33 and the determination that the potential for take would not increase. Please see response to comment 564-35 regarding the commitments in Mitigation Measure BIO-2c to minimize the risk of avian collisions with power and SCADA lines that are consistent with APLIC recommendations (2006, 2012). With the implementation of these measures, in addition to the environmental commitments in Appendix 3B, the project would not be expected to increase the potential for take of greater sandhill crane in the project area.
564-82	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-272, lines 32-33 states: "These short segments of aboveground lines are at least 3 miles from the nearest known Greater Sandhill Crane roost site (Appendix 13B, Section 13B.58, Figure 13B.58-1)”" Regarding the new 20-meter overhead line on Lower Roberts Island being "at least 3 miles from the nearest known Greater Sandhill Crane roost site”" This statement is obviously not true (see Appendix 13B, Figure 13B.59-1 and Mapbook 3-3, Sheet 13 of 20).	Chapter 13, Terrestrial Biological Resources, has been revised to clarify that the new overhead line on Lower Roberts Island is at least 3 miles from the nearest known greater sandhill crane permanent roost site. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-83	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines	Please refer to response to comment 564-79 regarding the placement of new transmission lines on existing towers and Avian Power Line Interaction Committee recommendations (2006, 2012).

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	Chapter 13, page 13-272, lines 44-46 and page 13-273 lines 1-5 state: Under all project alternatives, aboveground SCADA lines would be placed on existing poles or towers from Franklin Boulevard to Freeport Boulevard and from the Sacramento River to Scribner Road just east of Clarksburg. Replacement aboveground transmission lines on existing poles would be needed from the Franklin Substation, along Franklin Boulevard to Lambert Road. From the intersection of Lambert Road and Franklin Boulevard, these transmission lines would be extended underground to the Lambert batch plant, the intakes, and the Twin Cities Complex (Chapter 3, 3 Figure 3-13 and Figure 3-14). Replacement aboveground transmission lines along Franklin Road would be placed at the same vertical height as the existing lines on the opposite side of the tower. Addition of any new line spans on existing poles or towers would increase risk of take of Greater Sandhill Cranes; the more wires in their flight paths, the more likely they are to collide with them.	
564-84	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-273, lines 4-11 state: Replacement aboveground transmission and SCADA lines located within 1.2 miles of known roost sites, in the absence of mitigation, could increase the potential for collision for Greater Sandhill Cranes (within 3 miles of known roost sites for Lesser Sandhill Cranes; Ivey et al. 2015:523) if they were not constructed within the same vertical prism as the existing lines. This potential for	Please refer to response to comment 564-34 regarding the use of a 5-km commute distance between roosts and foraging habitat and the adequacy of the CEQA analysis.

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	collision, in the absence of mitigation, could also be exacerbated by construction related effects (e.g., flushing caused by noise disturbance), especially in low-visibility conditions. Here, the DEIR again assumes that the 1.3 miles and 3 miles standards are good metrics for providing mitigation to minimize take of Greater Sandhill Cranes. As I have previously stated, a 9 km distance is more appropriate for mitigation of take.	
564-85	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-273, lines 4-11 state: Replacement aboveground transmission and SCADA lines located within 1.2 miles of known roost sites, in the absence of mitigation, could increase the potential for collision for Greater Sandhill Cranes (within 3 miles of known roost sites for Lesser Sandhill Cranes; Ivey et al. 2015:523) if they were not constructed within the same vertical prism as the existing lines. This potential for collision, in the absence of mitigation, could also be exacerbated by construction related effects (e.g., flushing caused by noise disturbance), especially in low-visibility conditions. The DEIR again assumes that placing new lines on existing poles or towers in the same vertical plain will negate increased collision risk to Greater Sandhill Cranes. Again, the more wires (lines) in the cranes' flight paths within 9 km of roost sites, the more likely they are to collide with them.	Please refer to response to comment 564-79 regarding the placement of new transmission lines on existing towers and Avian Power Line Interaction Committee recommendations (2006, 2012).

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564-86	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Power Lines Chapter 13, page 13-274, lines 6-11 state: "BIO-2c: Electrical Power Line Support Placement, which requires that project lines installed on existing poles or towers be placed in the same vertical prism as existing lines where feasible, and that all project lines within 3 miles of greater sandhill crane roost sites be fitted with bird flight diverters that are visible under all conditions and based on APLIC or more current guidance (Avian Power Line Interaction Committee 2006, 2012), would minimize any additional potential collisions of greater or lesser sandhill cranes from project alternatives." This statement only considers "project lines," however, existing lines within this same landscape also pose a take threat to Greater Sandhill Cranes. To minimize take from flushing disturbances, all new and existing lines within 3 miles of Greater Sandhill Crane roost sites should be fitted with appropriate bird flight diverters that are visible under all conditions, including using near ultraviolet lights which has been shown to reduce sandhill crane collisions by 98% (Dwyer et al. 2019).	Please refer to response to comment 564-35 regarding the adequacy of the environmental commitments, Mitigation Measure BIO-2c, and Mitigation Measure BIO-33, to avoid and minimize potentially significant impacts on sandhill cranes.
564-87	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Construction and Maintenance Chapter 13, page 13-263, lines 32-40 state: "The construction of all project alternatives would affect known roost sites and	The EIR acknowledges the substantial conversion of suitable sandhill crane habitat to incompatible land cover types, including orchards and vineyards (see Appendix 13B, Species Accounts). However, the total impact (permanent, long-term temporary, and temporary) of project alternatives on sandhill crane habitat is between 0.5% and 1% of the modeled habitat in the study area. Potential noise impacts that disturb cranes use of existing habitat will be mitigated by creating and managing high-value habitat for

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	modeled foraging habitat for greater and lesser sandhill crane. Effects from construction activities would include the permanent and temporary loss of habitat and potential disturbance of roosting and foraging behaviors. Sandhill cranes show strong site fidelity to their roost sites and associated foraging habitat (Ivey et al. 2014a:2); however, there is sufficient habitat in the sandhill crane winter use area such that the permanent and temporary loss of habitat and potential disturbance of roosting and foraging behaviors caused by the project is not expected to lead to take of Greater Sandhill Crane, as defined by Section 86 of the California Fish and Game Code or injury or mortality of Lesser Sandhill Crane." The contention above that there is sufficient habitat in the winter use area so that loss of habitat is not expected to lead to take of Greater Sandhill Cranes is flawed. Capacities of existing wintering sites to support Sandhill Cranes are threatened by habitat loss, which is occurring throughout the Central Valley (Ivey et al. 2014). The Delta is certainly under the greatest threat due to pressures from expanding urban areas and is losing habitat (grain fields) to incompatible permanent crops faster than other regions (estimated at 18.3% by 2040; Central Valley Joint Venture 2006:79), which could contribute to a reduction of the population. The Delta Greater Sandhill Cranes are already stressed by such habitat losses and so the effects of project construction and operations will add additional stress and risk to the population's future viability. This issue of cumulative impacts was not discussed or evaluated in the DEIR.	the species. Furthermore, the management of roosting and foraging habitat through the CMP and protection of that habitat in perpetuity, would provide assurances that suitable habitat is available within the Delta and minimize the effects of habitat conversion.
564-88	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project	Please refer to response to comment 564-35 regarding the adequacy of the environmental commitments, Mitigation Measure BIO-2c, and Mitigation Measure BIO-33, to avoid and minimize potentially significant impacts on

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	Activities - Construction and Maintenance Chapter 13, Page 13-273, lines 12-24: "Maintenance - The maintenance of aboveground water conveyance facilities for all project alternatives would result in periodic disturbances that could affect roosting and foraging Sandhill Cranes. Maintenance activities across all facilities that could affect Sandhill Cranes (all project alternatives) include repaving of access roads every 15 years, semiannual general and ground maintenance (e.g., mowing, vegetation trimming, herbicide application), and daily or weekly inspections by vehicle. Noise and visual disturbances from these maintenance activities at the intakes and shaft sites could disturb greater and Sandhill Cranes roosting or foraging in the vicinity of work areas if activities are conducted between October and mid-March (when cranes are present in the study area)." Disturbance of Greater Sandhill Crane roosting and foraging behaviors from construction, noise, maintenance, and monitoring and surveying activities which flush Greater Sandhill Crane flocks pose a risk of take from collisions with new or existing power lines, causing injuries or mortalities.	sandhill cranes.
564-89	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Construction and Maintenance Chapter 13, Page 13-273, lines 12-24: "Maintenance - The maintenance of aboveground water conveyance facilities for all project alternatives would result in periodic disturbances that could affect roosting and foraging Sandhill Cranes. Maintenance activities across all facilities that could affect	The description of potential maintenance impacts on sandhill cranes in Chapter 13, Terrestrial Biological Resources, has been revised to reflect September 15 through March 15 as the crane wintering season, consistent with other sections of the EIR. This change does not result in a change to the impact determination for greater and lesser sandhill cranes in Chapter 13 and none of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.

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	Sandhill Cranes (all project alternatives) include repaving of access roads every 15 years, semiannual general and ground maintenance (e.g., mowing, vegetation trimming, herbicide application), and daily or weekly inspections by vehicle. Noise and visual disturbances from these maintenance activities at the intakes and shaft sites could disturb greater and Sandhill Cranes roosting or foraging in the vicinity of work areas if activities are conducted between October and mid-March (when cranes are present in the study area)." "October and mid-March" is not an accurate time period for when cranes are in the study area. Other sections of the DEIR use September 15 through March 15 as the crane wintering season, and this range should be stated here.	
564-90	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Construction and Maintenance Chapter 13, Page 13-273, lines 12-24: "Maintenance - The maintenance of aboveground water conveyance facilities for all project alternatives would result in periodic disturbances that could affect roosting and foraging Sandhill Cranes. Maintenance activities across all facilities that could affect Sandhill Cranes (all project alternatives) include repaving of access roads every 15 years, semiannual general and ground maintenance (e.g., mowing, vegetation trimming, herbicide application), and daily or weekly inspections by vehicle. Noise and visual disturbances from these maintenance activities at the intakes and shaft sites could disturb greater and Sandhill Cranes roosting or foraging in the vicinity of work areas if activities are conducted between October and mid-March	Please refer to the response to comment 564-32, which describes the additional detail that has been added to Chapter 13, Terrestrial Biological Resources, regarding how the September 15 through March 15 arrival and departure dates were determined and an acknowledgment that the survey dates and dates included in mitigation measures to minimize potential impacts on sandhill cranes may need to be adjusted over the course of the project. Measures to avoid and minimize potential project impacts on sandhill crane are presented in Mitigation Measure BIO-33. Please also see Environmental Commitment 14 regarding measures to minimize potential impacts from maintenance activities on special-status species, including sandhill crane.

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	(when cranes are present in the study area)." While the September 15 through March 15 dates are generally valid for the crane wintering period, the DEIR should consider that some cranes may arrive or depart the study area earlier or later than those standard dates. For fall arrival, I have had personal reports of small numbers of cranes arriving in the Delta Region in mid-August. In spring, flocks of cranes have been reported as late as mid-April in the Delta Region. According to eBird data (eBird.org), pairs and singles have been reported in the study area throughout the month of May. There is one report of a flock of 50 on King Island on May 28, 2020, but I doubt the credibility of that report. The DEIR should recognize that there may be impacts to cranes on these outside dates and take measures to avoid disturbing them when they are known to be near a project work site such as stopping construction at that site and changing maintenance and monitoring plans to accommodate them.	
564-91	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Construction and Maintenance Chapter 13, page 13-275, lines 13-16 state: "Construction will be avoided during the sandhill crane wintering season (September 15 through March 15) to the extent feasible. In addition, the following measures will be implemented to avoid and minimize impacts on greater and lesser sandhill crane and to avoid take of greater sandhill crane as defined by Section 86 of the California Fish and Game Code. The DEIR should consider that some cranes may arrive or	Please refer to the response to comment 564-32, which describes the additional detail that has been added to Chapter 13, Terrestrial Biological Resources, regarding how the September 15 through March 15 arrival and departure dates were determined and an acknowledgment that the survey dates and dates included in mitigation measures to minimize potential impacts on sandhill cranes may need to be adjusted over the course of the project.

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	depart the study area earlier or later than those standard dates, as I noted above, and adjust construction avoidance dates to avoid risking take of sandhill cranes in proximity to work sites.	
564-92	[ATT 4:] Potential for Take of Greater Sandhill Cranes by Project Activities - Construction and Maintenance Chapter 13, page 13-265, lines 14-16 and 13-266, lines 1-2 state: "Construction activities would not be expected to injure or kill sandhill crane individuals. If a bird is present in a region where construction activities are occurring, the bird would be expected to avoid the slow-moving or stationary equipment and move to other areas, as they would move away from any other trucks or farm equipment that could be present within or adjacent to agricultural habitats under existing conditions." The project would substantially increase traffic and other activities related to construction and ongoing monitoring and maintenance which will lead to increased risk of take of Greater Sandhill Cranes. Activities which flush Sandhill Cranes, such as traffic to and from work sites, could lead to power line mortalities. To avoid impacts to and potential take of Greater Sandhill Cranes, confine most activities, investigations, and helicopter surveys to months when cranes are absent (May-August) as much as feasible. One way to reduce this additional take would be to complete construction in crane use areas outside the Greater Sandhill Crane wintering period; however, there would still be disturbance from project maintenance and monitoring activities for the future of the project which could result in take.	Chapter 13, Terrestrial Biological Resources, evaluates potential impacts on sandhill cranes described by the commenter, including the effects of noise and visual disturbance from traffic and other construction-related activities and the effects of transmission and SCADA lines. As described in Mitigation Measure BIO-33, activities will be restricted to outside of the greater sandhill crane winter use season to the extent that it is feasible to do so. Mitigation Measure BIO-33 discloses the construction activities that are likely able to be conducted outside of the winter use season, such as the construction of access roads and underground transmission lines and pile driving, which are activities that are only required to occur for short durations. Mitigation Measure BIO-33 also requires that helicopter surveys and field investigations be conducted outside of the sandhill crane wintering season in suitable habitat. Please also see Environmental Commitment 14, which includes measures to minimize potential impacts from maintenance activities on special-status species, including sandhill crane. With the implementation of these measures the project would not be expected to increase the potential for take of greater sandhill crane in the project area.

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564-93	[ATT 4:] General comments about other shortcomings in the DEIR Appendix 13B, page 13B-374, lines 6-13 state: "The Cosumnes River floodplain, much of it protected within The Nature Conservancy's Cosumnes River Preserve, also supports significant winter crane use. Use may have increased in this area as continued conversion to vineyards on Delta Islands has reduced habitat availability in that area (Ivey et al. 2014a:27; Littlefield and Ivey 2000:23). As noted, crane use is entirely dependent on agricultural crop patterns. Conversion to unsuitable crop types effectively eliminates crane habitat. Over the last two decades, a substantial amount of conversion to vineyards has occurred on Delta islands and is considered among the most important conservation issues for the greater sandhill crane (Ivey et al. 2016:63)." All 3 of these citations are incorrect in that the references cited mention both orchards and vineyards as incompatible crops, in addition to other development, not just vineyards. This account seems to mostly ignore the important threat of habitat losses through conversion to orchards (tree nuts and olives).	Appendix 13B, Species Accounts, does state that agricultural conversion, particularly increases in both orchards and vineyards, are key threats to suitable habitat for sandhill cranes. Additional references to orchards have been added, per the associated citations of Ivey et al. 2014, Ivey et al. 2016, and Littlefield and Ivey 2000, to further support these statements.
564-94	[ATT 4:] General comments about other shortcomings in the DEIR Appendix 13B, page 13B-376, lines 6-13 state: "Greater sandhill crane modeled roosting habitat consists of polygons of known roost sites. Permanent roost sites are those used regularly, year after year (e.g., Cosumnes River Preserve, Stone Lakes National Wildlife Refuge, and other wetlands managed for	Chapter 13, Terrestrial Biological Resources, has been updated to include the additional citation of the roost site GIS layer developed during the BDCP planning process. The figure of roost sites in Ivey et al. 2016 was digitized and compared to the roost site GIS layer to determine if it included any sites that had not previously been identified that should be added to the model, and the digitized file matched the initial GIS roost site layer. Updates were made to permanent and temporary roost sites based on feedback from biologists familiar with crane use in the Delta (Tsao pers. comm.; Wells pers. comm.). Please also see Common Response 11,

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	sandhill cranes), while temporary sites are those used during some years (e.g., lands that do not provide suitable crops or flooding every year due to rotating agricultural practices [Ivey et al. 2014a:6]). Known roost sites are based on sandhill crane surveys in the study area conducted between 2002 and 2013 (Ivey et al. 2016), 2017–2019 (Tsao pers comm.), and 2017–2020 (Wells pers. Comm.)." My 2016 paper cited by the DEIR does not provide enough detail to map roost sites and it does not include 2013 data, so this statement is in error. I believe the DEIR used a roost site GIS layer that I developed during the BDCP planning process. Also, most [of] my roost site data is over 9 -20 years old and out of date and should not be relied on for Waterfix planning. New roost site surveys need to be conducted before project implementation.	Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. Mitigation Measure BIO-33 requires surveys for sandhill cranes to be conducted. As described in Chapter 13 in the section titled Methods Used to Assess Impacts on Special-Status Species, surveys will not be limited to modeled habitat but will be conducted in all suitable habitat for roosting and foraging by sandhill cranes. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-95	[ATT 4:] General comments about other shortcomings in the DEIR Appendix 13F, page 13F-7, lines 11-14 state: "Construction would be complete by 2040, and no further construction impacts on Greater Sandhill Crane or Lesser Sandhill Crane would occur. Impacts on Sandhill Cranes as a result of operations of the alternatives is described in Impact BIO-33, Chapter 13, Section 13.3.3.4. The impact of operating the alternatives by 2040 would be the same." Compared to the No Project Alternative conditions, there would be an increased potential for Greater Sandhill Crane and Lesser Sandhill Cranes, if present, to have normal behaviors	The commenter provided a portion of the text from Appendix 13F, Terrestrial Biological Resources 2040 Analysis. This is not a comment on the contents of the EIR. In regard to potential permanent lighting impacts on sandhill cranes, the EIR acknowledges in Impact BIO-33, Chapter 13, Terrestrial Biological Resources, that cranes "may avoid roosting in areas where lighting is bright" and the analysis explains why this lighting impact would be less than significant after mitigation.

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	disrupted by permanent lighting in the areas where DWR facilities would be located.	
564-96	[ATT 4:] General comments about other shortcomings in the DEIR Appendix 3F, Table 3F-4: The Total roosting habitat does not add up. Only 49.88 acres are included in the table, yet it shows a total of +72.39 acres.	In response to the comment regarding total acres, the table has been updated to correct discrepancies. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
564-97	[ATT 4:] Sources Cited: Brown W. M. R. C. Drewien, and E. G. Bizeau. 1987. Mortality of cranes and waterfowl from power line collisions in the San Luis Valley, Colorado. In: Lewis JC, editor. Proceedings of the 1985 crane workshop. Grand Island, Nebraska, USA: Platte River Whooping Crane Maintenance Trust. Pages 128–136. Central Valley Joint Venture, 2006. Central Valley Joint Venture Implementation Plan – Conserving Bird Habitat. U.S. Fish and Wildlife Service, Sacramento, CA, USA. Dwyer, J. F., A. K. Pandey, L. A. McHale, and R. E. Harness. 2019. Near-ultraviolet light reduced Sandhill Crane collisions with a power line by 98%. Condor, 121:1–10. Ivey, G.L., B.E. Dugger, C.P. Herziger, M.L. Casazza, and J.P. Fleskes. 2015. Wintering ecology of sympatric subspecies of Sandhill Cranes: correlations between body size, site fidelity, and movement patterns. Condor 117: 518-529. Ivey, G.L., C.P. Herziger, and D. A. Hardt. 2014. Conservation priorities and best management practices for wintering Sandhill Cranes in the Central Valley of California. Prepared for	This information provides references in support of the comments provided in Attachment 4. It is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	The Nature Conservancy of California. International Crane Foundation. Baraboo, WI, USA.	
564-98	[ATT 5: Report titled "Conservation Priorities and Best Management Practices for Wintering Sandhill Cranes in the Central Valley of California, dated December 2014, prepared by the International Crane Foundation.]	The commenter provided this attachment for reference purposes in support of the comments provided in Attachment 4. Those comments are addressed in the responses to Attachment 4 of the commenter's letter.
564-99	[ATT 6: Dissertation of G. I. Ivey, titled "Comparative Wintering Ecology of Two Subspecies of Sandhill Crane: Informing Conservation Planning in the Sacramento-San Joaquin River Region of California", presented on March 6, 2015.]	The commenter provided this attachment for reference purposes in support of the comments provided in Attachment 4. Those comments are addressed in the responses to Attachment 4 of the commenter's letter.
565-1	Thank you for providing the Delta Conveyance Project Draft Environmental Impact Report (DEIR) to Civic Thread (Formerly WALKSacramento). The DEIR includes in its scope the modernization of water transport infrastructure through the construction of two new water intake facilities along Sacramento River in the north Delta communities Hood and Courtland. In addition the project includes an underground water conveyance tunnel to transport water from intake ports to the existing Bethany Reservoir. Given the nature of this project is largely outside the scope of Civic Thread, our comments will be reserved primarily to the transportation and circulation components of the document.	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
565-2	Beginning with the commendable additions, as noted in Chapter 3.4.13, we appreciate the incorporation of EV charging stations at each of the park and ride lots. These additions will help incentivize the use of EV transportation of construction workers and others involved in the project.	The comment supports the incorporation of electric vehicle charging stations at the park and ride lots. The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
565-3	The CBA (Chapter 34) attached to this project includes the dedication of construction roads to agricultural use which will support the navigation of slow and large farming tractors and	As described in Appendix 3G, Community Benefits Program Framework, the Delta Community Fund could support potential actions that would improve transportation connectivity and recreation in the Delta, including

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	equipment off the main travel thoroughfares and reduce potential for conflict with both drivers and active transportation users. Additionally, the CBA includes potential funding in support of providing transportation infrastructure improvements, including active transportation. We strongly encourage the commitment to ensuring these improvements take place in support of the diverse recreation offered in the region, including cycling.	cycling. No decisions will be made regarding specific actions to be included in the Community Benefits Program until after CEQA approval of the proposed Delta Conveyance Project and after continued engagement with the community.
565-4	Bicycle Facilities Improvement to bicycle facilities for all roads impacted during the construction of the project are largely appreciated. The plans indicate the inclusion of 4-foot shoulders which we strongly commend, however if traffic volumes on any such roads are expected to reach between 750-2000 vehicles per day, we request should[er] widths to be widened to 6 feet to remain in accordance with best practices [https://www.vta.org/sites/default/files/documents/vta_bicycle_technical_guidelines_ch7-8.pdf]. Where bike facilities are implemented, we highly recommend the inclusion of rumble strips in compliance with Caltrans Guidelines for Installing Rumble Strips on California State Highways [https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/policy/20-07-rumble-strips-guidelines-and-memo-011421-a11y.pdf] which mandates the inclusion of, "12-foot gaps followed by 48-foot rumble strips." These gaps ensure that cyclists can safely enter and exit the shoulder should they need for directly [sic] purposes or to avoid a hazard. Where improvements are made at signalized intersections, bike detection sensors should be included particularly at higher	Impacts TRANS-3 and TRANS-4 in Chapter 20, Transportation, address potential construction impacts as they relate to access and roadway improvements. Prior to construction, Geometric Approval Drawings (GADs) would be developed by DWR for review, comment, refinement, and approval in consultation with the applicable transportation entities. For state and federal roadways and intersections, DWR will design and construct the improvements based on Caltrans requirements for vehicles, pedestrians, and bicyclists, including lane widths, shoulders, rumble strips and bike detection at signalized intersections. For local county and city roadways and intersections, DWR will design and construct the improvements based on local agencies requirements for vehicles, pedestrians, and bicyclists, including lane widths, shoulders, and bike detection at signalized intersections.

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	volume intersections such as arterial and rural road connections.	
565-5	We [Civic Thread] would like to further commend the project for its ambition to achieve net zero GHG emissions from the project's construction and the voluntary inclusion of an Environmental Justice report. These both show great leadership in projects that equitably and environmentally consciously address the impacts they impose.	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
565-6	Civic Thread is working to support increased physical activity such as walking and bicycling throughout the region as well as helping to create community environments that support walking and bicycling. The benefits include improved public health and physical fitness, better air quality, a stronger sense of cohesion and safety in neighborhoods, and more sustainable communities and local economies.	This information describes the background of the organization or individual commenter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
565-7	Please notify Civic Thread of future routings or notices for this project.	All persons, organizations, or agencies that commented on the Draft EIR will be included on the project notification list.
566-1	On behalf of North Coast Rivers Alliance, Winnemem Wintu Tribe, Pacific Coast Federation of Fishermen’s Associations, San Francisco Crab Boat Owners Association, Institute for Fisheries Resources, and California Sportfishing Protection Alliance we submit the following comments on the Draft Environmental Impact Report ("DEIR") prepared by the Department of Water Resources ("DWR") for its Delta Conveyance Project ("Project"). Please include them in the public record for this matter.	This information describes the structure or organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. All comments are included in the administrative record.
566-2	The Delta Conveyance Project as proposed would include "a 6,000 cfs [cubic feet per second]" capacity tunnel, "to be located on either a central or eastern alignment from intakes in	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments stating their opinions regarding general opposition of the project. DWR has

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	the north Delta to pumping facilities in the south Delta near Clifton Court Forebay." DEIR 3..3, p. 3-6. Six thousand cubic feet per second, if maintained year round, would remove a quantity of water sufficient to flood Rhode Island to a depth of seven feet. The Project, like the previous plans for enormous new Delta conveyance facilities including the WaterFix, the Bay Delta Conservation Plan, and the Peripheral Canal, is premised on the false notion that taking massive quantities of water from the Delta will not profoundly harm the Delta's imperiled ecosystem. To the contrary, the Project would substantially dewater, and consequently devastate, the Delta's fish and wildlife habitat. It would waste billions of public dollars to increase rather than reduce reliance on the Delta for water supplies that where possible should be provided regionally and locally. And, it would doom current efforts to meet statutory mandates to restore the Delta's threatened and endangered fisheries.	thoroughly assessed the feasibility and function of the project to meet the overall project purpose and objectives as presented in Chapter 2, Purpose and Project Objectives. The short- and long-term impacts and benefits of the proposed project and project alternatives will be considered by DWR as part of the decision-making process. Please refer to Common Response 7, Implementation Considerations, regarding the cost and funding for the Delta Conveyance Project. As described in Common Response 7, the water contractors benefiting from the project and their customers would bear all costs associated with constructing, operating, and maintaining the Delta Conveyance Project and the costs of mitigating the impacts of those new facilities, not taxpayers. The comment assertions that the project would substantially dewater the Delta and devastate the Delta's fish and wildlife habitat are not supported by the analyses in the EIR. Chapter 5, Surface Water, provides the simulated changes in river conditions which demonstrate that long-term average monthly flows under project operations would be similar to existing conditions. Chapter 3, Description of the Proposed Project and Alternatives, explains the operational criteria of the project. Please also refer to Common Response 3, Alternatives Development and Description, regarding project operations. As described in Common Response 3, during the winter and spring there are typically periods when Delta inflows from storm events are more than needed to meet Delta requirements and more than can be captured at the existing SWP/CVP export facilities, or south Delta diversions. The north Delta diversion would augment the existing infrastructure by providing additional capacity to capture these excess flows. The Delta Conveyance Project would also provide operational flexibility in late spring, summer, and fall, together with the SWP, to meet D-1641 salinity requirements. The proposed project would not be operated at full capacity year-round. If the Delta Conveyance Project is approved, DWR will operate the project in compliance with its existing water rights; DWR is not proposing to increase the total quantity of water permitted for

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		diversion under its water rights. Additionally, as described in Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources, potential impacts related to aquatic species and wildlife would be mitigated to a less-than-significant level.
566-3	Like the Project, its DEIR is likewise fundamentally flawed, for the reasons summarized below and recounted in detail in numerous public comments submitted to DWR from impacted communities and concerned conservation groups, including separate comments submitted by the California Sportfishing Protection Alliance, Institute for Fisheries Resources, and Pacific Coast Federation of Fishermen's Associations, which we incorporate by reference.	For additional detailed responses regarding the topics addressed in letter 566 see responses contained in this table. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Volume 2, Chapter 4, Response to Comments Tables.
566-4	I. The DEIR is Insufficient to Inform Decisionmakers and the Public Regarding the Impacts of the Project The California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq., requires that agencies fully consider the environmental impacts of their decisions before approving them. The "heart of CEQA" is the environmental impact report. Citizens for Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564. "The fundamental purpose of an EIR is 'to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment.' ([Public Resources Code] § 21061.)" Vineyard Area Citizens for Reasonable Growth v. City of Rancho Cordova (2007) 40 Cal.4th 412, 428. To that end, the EIR "shall include a detailed statement setting forth...[a]ll significant effects on the environment of the proposed project." ([Public Resources Code]§ 21100, subd. (b)(1).) Id. "The EIR, with all its specificity and complexity, is the mechanism prescribed by CEQA to force informed decision making and to expose the decision making	The EIR adequately analyzes and discloses environmental impacts in accordance with CEQA. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approach to the CEQA analysis including organization of the EIR, the length and complexity of the document, discussion of and the use of thresholds of significance and their relation to impacts determination, and the organization of the information provided in the EIR to ensure full disclosure to the public and decision makers. The assertion of the comment that DWR omits or postpones consideration of the actual, foreseeable environmental impacts of many aspects of the project is not supported by the contents of the EIR. More than 50 individual impacts are evaluated in the EIR across 31 resources, and more than 80 mitigation measures are proposed throughout the EIR to reduce impacts on various resources. Please refer to the Executive Summary table titled Summary of Delta Conveyance Project Impacts and Mitigation Measures for a listing of each impact, significance determinations, and applicable mitigation. Finally, please see Common Response 1 regarding the adequacy of mitigation measures identified in the EIR. Please refer to Chapter 4, Framework for the Environmental Analysis,

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	process to public scrutiny." California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 978. But here, the DEIR cannot serve this essential informational purpose because it deliberately omits or postpones consideration of the actual, foreseeable environmental impacts of many aspects of the Project. "The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. '[I]nformation "scattered here and there in EIR appendices" or a report "buried in an appendix," is not a substitute for "a good faith reasoned analysis'"" Vineyard Area Citizens, supra, 40 Cal.4th at 442. We highlight below many of the DEIR's most troubling omissions and unsupported assumptions.	which discusses the evaluation methodology including use of thresholds and mitigation in the EIR. Within the EIR, each resource chapter provides comprehensive analyses of construction and operations of the project elements, including maintenance requirements, and discloses resource-specific direct and reasonably foreseeable indirect impacts on each.
566-5	A. THE TRIBAL RESOURCES ANALYSIS EXCLUDES RELEVANT PORTIONS OF THE STUDY AREA The DEIR indicates that the Project's study area includes areas upstream of the Delta, including the Sacramento, Trinity, and Feather River systems that have been impounded by dams for the State Water Project and Central Valley Project. DEIR Figures 1-4 to 1-8. Yet, for the purposes of the DEIR's discussion of Tribal Resources, the DEIR improperly limits the tribal cultural resources study area to a much smaller region. See DEIR Figure 32-1. The DEIR claims that it has limited its discussion of the Project's impacts to "areas where project activities have the potential to physically disturb Tribal cultural resources, where operations have the potential to materially impair waterways that are a	DWR recognizes that the Tribes perceive that project effects would extend beyond the study area due to the interconnectedness of waterways. As described in Chapter 32, Tribal Cultural Resources, in the section titled Study Area, no construction would occur outside of the Delta counties, and the proposed project and alternatives would not change operational criteria associated with upstream reservoirs. Some indirect operational changes could occur because of the interconnectedness of the waterways, but modeling analysis has indicated that these changes would be negligible (see Chapter 5, Surface Water). Because changes to reservoir storage and river flows would be minimal, they would not have the potential to affect resources upstream from the Delta and those areas are not included in the study area. Additionally, there would be no physical alterations and minimal variations in surface water flows south of the Delta in State Water Project (SWP) and Central Valley Project (CVP) service areas. Therefore, the study area does not include the potential for physical impacts in areas upstream of the Delta region or the south-of-Delta SWP and CVP service

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	character-defining feature of a Tribal cultural resource, or where the project has the potential to materially impair, through visual disruption, a character-defining feature." DEIR Section 32.1.1 (p. 32-6). But the DEIR fails to recognize that the Project's physical impacts to cultural resources extend far beyond arch[a]eological or historical structures that will be disturbed directly through Project construction. This is so because operation of the Project will impact the ecological health and related cultural resources of the tributary watersheds such as the Trinity, Upper Sacramento, McCloud and Pit [R]ivers. To Native Americans, it is impossible and inappropriate to separate natural and cultural resources as if they were unrelated to each other, since their rich cultural history is interwoven with the natural world and its cycle of life. The DEIR likewise fails to include analysis of the wildlife and plants that would be impacted through Project operation in areas upstream of the Delta. Because operation of the State Water Project and Central Valley Project would be altered in direct and indirect responses to this Project, including changes in upstream releases on the Sacramento, American and Feather Rivers, the Tribal Cultural Resources discussion in the DEIR should have detailed the Project's potential impacts on Native American cultural resources that depend upon and interact with the tributary watersheds. Contrary to CEQA, the DEIR fails to examine the direct and cumulative effects of these Project operations on the Tribal Cultural Resources that extend throughout the impacted upstream areas, including traditional tribal cultural resources and uses that are located near and along, and depend on the natural flows of, these tributary rivers.	areas. DWR understands and recognizes that natural features and plant and animal resources are key species for Tribes, and it has consulted with Tribes and considered the impacts on these resources as character-defining features of the Delta as a Tribal Cultural Landscape. Please see Chapter 32 regarding DWR's consultation and engagement with Tribes on the project, the definition of Tribal cultural resources, and those resources identified as Tribal cultural resources. Please see Common Response 16, Tribal Cultural Resources, regarding DWR's consideration of individual Tribal cultural resources, as well as the documentation in the record regarding DWR's evaluation of Tribal cultural resources including an explanation of the Delta Tribal Cultural Landscape (Delta TCL) study area. Chapter 32, Impact TCR-1, considers multiple variables (described as character-defining features) as part of the Delta Tribal Cultural Landscape, including those identified in the table titled Tribal Views on Delta TCL Character-Defining Features. For example, landscape features, archaeological sites, and terrestrial and aquatic plant and animal species habitats, including those of salmon, are identified as character-defining features that represent heritage and cultural significance to Tribes pertaining to sustenance, traditional knowledge, ceremony, spiritual practices, and stewardship. As such, the impact analysis in Chapter 32 considers the various individual resources identified by Tribes and the values these resources contribute to the Tribal Cultural Landscape. DWR is committed to continued understanding and incorporation of Tribal knowledge through close collaboration and engagement on the implementation of the mitigation measures as described in Chapter 32. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the selection of the study areas evaluated in the EIR and a discussion of areas upstream

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	While the DEIR pays lip service to the interconnected nature of Tribal Cultural Resources, the analysis conveniently omits significant upstream impacts, including impacts on migrating salmonids, which are a significant tribal cultural and subsistence resource. By limiting its analysis of these impacts so severely, the DEIR likewise fails to address the cumulative impacts -- past, present, and future -- on Tribal Cultural Resources, including the devastating impacts of the State Water Project and Central Valley Project on tribes upstream of the Delta, including the Winnemem Wintu Tribe. DWR must expand its discussion of Tribal Cultural Resources and the Project's potential impacts on them, to include the entire Project study area.	of the north Delta intakes (e.g., McCloud and Trinity Rivers). Please also refer to Common Response 1 for information about the analysis of upstream aquatic species in the Feather River, Sacramento River, and other upstream waterways and Chapter 12, Fish and Aquatic Resources, regarding the screening-level summary of differences that was undertaken for areas upstream of the Delta to confirm minimal differences between alternatives and existing conditions. Please also see Common Response 3, Alternatives Development and Description, regarding the Delta Conveyance Project's operations which does not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Please also refer to Chapter 13, Terrestrial Biological Resources, regarding flows within and upstream of the Delta and analyses of potential impacts on wildlife and plant species from project operations. As described in Chapter 13, potential impacts related to plant and wildlife species would be mitigated to a less-than-significant level. Please refer to Common Response 1 regarding the adequacy of the approach to the cumulative analysis in the EIR. The section titled Cumulative Analysis in Chapter 32 presents a thorough analysis of past, present, and reasonably foreseeable probable future projects with the potential to cause impacts on Tribal cultural resources that are also being affected by the project, and thus the study area for cumulative impacts is the same as the Tribal cultural resources study area for the project. The EIR concluded that there would be cumulatively significant impacts on affiliated Tribes' ability to physically, spiritually, or ceremonially experience the Delta TCL or resources that may be identified in the future as individual Tribal cultural resources. The EIR concludes that even with application of mitigation measures the Delta Conveyance Project, in combination with other projects, plans, policies, and programs could result in a substantial cumulatively significant impact on Tribal cultural resources.

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566-6	B. The DEIR Does Not Include Sufficient Information to Allow Responsible Agencies to Discharge Their Duties Under the Delta Reform Act and Other Laws Responsible agencies rely upon lead agencies' environmental documents when determining whether to issue a later approval for a project. For this reason, the FEIR/FEIS must include sufficient information and analysis for other agencies, like the State Water Resources Control Board ("Water Board") to discharge their duties. Habitat and Watershed Caretakers v. City of Santa Cruz (2013) 213 Cal.App.4th 1277, 1298 ("the EIR was required to provide both [the lead agency] and [the responsible agency] with information about the environmental consequences of the decisions that they would be making with regard to the whole project"); Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal.5th 918, 939-941 (EIR must be comprehensive in addressing related reviews by other agencies, citing Habitat and Watershed Caretakers). The Water Board has a duty under Water Code sections 1243 and 1243.5 to protect beneficial uses of water including "[t]he use of water for recreation and preservation and enhancement of fish and wildlife resources." To discharge this duty, it needs a DEIR that provides detailed information about the Project's impacts on the public's use of the Delta's water for these public trust purposes. Here, the DEIR fails to provide this required information. As DWR acknowledges, the Water Board is one of the responsible agencies for the Project because DWR must petition that agency to approve a change in the point of diversion for the Project. E.g. DEIR 1.5.2.2, p. 1-39. The Water Board must thus consider the environmental impacts of the Project when	Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, discusses the State Water Board's 2010 Delta Flow Criteria Report and the requirement of the Delta Reform Act for the State Water Board to prepare this report to inform State Water Board water quality control planning processes. Please refer to Common Response 3, Alternatives Development and Description, regarding the provision of a reasonable range of alternatives that would feasibly attain all or most of the basic project objectives and avoid or substantially lessen one or more of the significant impacts of the proposed project. The scope of the project's purpose and objectives is described in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and Chapter 2, Purpose and Project Objectives. The EIR described the State Water Board's role as a responsible agency in Chapter 1, Introduction, and Common Response 8 provides additional description of the change of point of diversion process, which may require information beyond the needs of CEQA and contained in the EIR. The information contained in the EIR will be used by the State Water Board; however, the change in point of diversion process is independent of CEQA and may go beyond content developed for the EIR. Please also refer to Common Response 1 regarding project inclusion of CEQA required baseline and use of the existing biological opinions, and consideration of existing water quality control plan objectives and requirements. As described in Common Response 1, DWR is responsible for defining the existing baseline conditions under CEQA, comparing the project alternatives to the existing baseline conditions, and mitigating potentially significant environmental impacts attributed to the operation or construction of the project, not as a result of speculative future regulatory changes. Please refer to Common Response 8 regarding the relationship between the Delta Conveyance Project and the Delta Reform Act and Appendix 3E, Delta Reform Act Considerations. Appendix 4C, Alternate

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	considering such a petition. But the Water Board must also make many other important determinations during this process. It must consider additional factors and must consider the public trust resources that depend upon adequate flows for survival as it considers DWR's petition--and may condition approval on different flow and water quality conditions than those analyzed in the DEIR. But the DEIR fails to comply with CEQA's mandate that it address the Project's impacts on factors that responsible agencies such as the Water Board are required by law to consider. For example, the DEIR completely fails to study any alternatives that would substantially increase in-stream flows, both in tributary streams and in the main stems of the Sacramento and San Joaquin Rivers. This omission also contravenes the Delta Reform Act's direction that all state agencies, including DWR as well as the Water Board, re-examine their historic practices and consider measures needed to restore the Delta's imperiled ecosystem. Water Code §85000 et seq. For example, the Delta Reform Act requires the Water Board to ascertain the minimum flows through the Delta that are needed to restore its public trust resources and uses. Water Code §85086. All state agencies, and particularly DWR, are required to consider those flows in order to discharge their duties under this Act to protect and restore the Delta's ecological health. In that Act, the Legislature issued a clarion call for fundamental change in how state agencies managed the Delta. It declared that "[t]he Sacramento-San Joaquin Delta watershed and California's water infrastructure are in crisis and existing Delta policies are not sustainable. Resolving the crisis requires	Regulatory Scenario Sensitivity Analysis, is included in the EIR to provide an example of alternative future conditions in which regulations regarding water quality and Delta outflow in the Delta may change and how updated regulatory processes could cause changes to potential environmental effects disclosed in the Draft EIR under different future regulatory conditions. Finally, please see Common Response 17, Public Trust, regarding DWR's evaluation of public trust resources.

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	fundamental reorganization of the state's management of Delta watershed resources." Water Code § 85001(a). But contrary to this statutory command, the DEIR fails to examine any alternative that would satisfy the minimum flows identified in the Water Board's 2010 Delta Flow Criteria Report as necessary to protect and restore public trust resources and uses. Because the DEIR contains no analysis of how the future regulatory processes of the Water Board and other agencies will affect the Project's operation and its environmental impacts, the DEIR's consequently uninformed attempts to describe the Project's environmental impacts are necessarily incomplete. "In order to serve the important purpose of providing other agencies and the public with an informed discussion of impacts, mitigation measures, and alternatives, an EIR must lay out any competing views put forward by the lead agency and other interested agencies." Banning Ranch, supra, 2 Cal.5th at 940. Further, although "[d]isagreement among experts does not make an EIR inadequate, . . . The EIR should summarize the main points of disagreement among the experts."" Id. (quoting 14 C.C.R. ["CEQA Guidelines"] § 15151). Here, numerous scoping comments flagged the Water Board's 2010 Delta Flow Criteria Report as containing relevant information about necessary flows. DWR thus had a clear duty to "summarize the main points of disagreement among the experts." Id. But in direct defiance of this duty, DWR failed to perform this mandatory CEQA function. Indeed, DWR even failed to cite, let alone discuss, this definitive, and plainly critical, report on the minimum flows needed to restore the Delta's public trust resources and uses.	

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	The DEIR's failure to provide critical information about the flows needed to protect and restore the Delta--information that is absolutely essential for all responsible and cooperating agencies to discharge their duties under the Delta Reform Act and many other laws--violates CEQA. Habitat and Watershed Caretakers, 213 Cal.App.4th at 1298; Banning Ranch, 2 Cal.5th 939-941.	
566-7	C. The DEIR Fails to Adequately Address the Project's Impacts on Imperiled Fish 1. The DEIR Fails to Inform Decisionmakers and the Public of the Project's Impacts The DEIR compares Project impacts to existing conditions, which it models without accounting for the changed conditions that the DEIR admits will be apparent by 2040. These changed conditions - including dramatic warming in the Central Valley, substantial sea level rise, and resulting salt water intrusion, must be studied and disclosed in the context of the Project alternatives and the no project alternative so that a clear comparison of the Project's impacts can be made. DWR's failure to provide this comparison obfuscates the impacts of the Project and violates CEQA.	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the baseline and CEQA requirements regarding baseline. Please see Common Response 6, Climate Resilience and Adaptation, which discusses the range of climate change analyses provided in the EIR and how DWR has exceeded the CEQA requirements by including a dedicated chapter on climate change (Chapter 30), which discusses how trends in observed and projected climate change clearly indicate the need for the project and how it can enable adaptation to potential climate change impacts in the study area. This Common Response also provides discussions of how the project would enable adaptation to future changes in temperature and precipitation patterns and ensure water supply reliability in the face of increasing hydrological extremes.
566-8	2. The DEIR Improperly Assumes That Habitat Restoration Will Mitigate Impacts from the Project's Reduced Flows in the Delta In discussing how the Project alternatives will operate in the face of known and plainly foreseeable climate change, the DEIR retreats into verbal mumbo-jumbo. It states that the Project's negative operational "impacts on critical fish habitat and	With respect to the comment's characterization of cited text in Chapter 30, Climate Change, the text has been revised to provide a more complete summary of key Chapter 12, Fish and Aquatic Resources, findings and to provide a link to Appendix 12C, Fish and Aquatic Resources 2040 Analysis. None of the revisions to Chapter 30, section titled Impacts of the Project Alternatives with Climate Change, resulted in a new significant environmental impact or substantial increase in the severity of an

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	special-status species . . . include factors such as less Sacramento River flow downstream of the proposed north Delta intakes, resulting in changed north Delta hydrodynamics that may reduce through-Delta survival of juvenile Chinook salmon (Oncorhynchus tshawytscha) due to a potential decease in the inundation of riparian wetland bench habitat, depending on the alternative, season, and location." DEIR 30.4.2, p. 30-24. In other words, less water will mean fewer fish. But fewer fish means potential extirpation of the several Sacramento and San Joaquin River salmonid species that have been listed under the federal Endangered Species Act for decades and are now barely clinging to survival. The DEIR never admits, despite DWR's duty under CEQA to reveal this Project's actual, foreseeable impacts, that this is the most likely foreseeable result of the Project given the additive impacts of climate change. Dramatically less water means dramatically fewer fish. In short, the Project will essentially doom these fish to extinction. But the DEIR never tells the public that. Nor does DWR discharge its duty under CEQA to identify specific measures that will prevent the foreseeable, looming extinction of the Delta's imperiled fisheries. Instead, the DEIR engages in more double-talk. It states that "operations that affect flows to tidal and channel habitat could have both exacerbating and mitigating effects, given changes to flow and wetted areas from climate change." Id. (emphasis added). In other words, the Project's impacts could be both positive and negative, so not to worry. This is demonstrably false. The Project will take water from the Delta that fish need to survive. When that water is taken, they will die. CEQA	environmental impact or required additional mitigation measures to which DWR was unwilling to commit. Appendix 12C compares the No Project Alternative at 2040 to the project alternatives at 2040 using modeling tools and methods appropriate for the evaluation of impacts on fish and aquatic resources; in Appendix 12C, modeling for the No Project Alternative at 2040 and project alternatives at 2040 incorporates assumptions regarding changes to hydrology and sea level rise as a result of climate change; this appendix shows that the relative difference between the project alternatives and No Project Alternative at 2040 is generally similar to the difference between the project alternatives and existing conditions at 2020. For the example given in the comment related to inundation of riparian and bench habitat, this is identified as a potentially significant impact and mitigation is included to address the impact (see Mitigation Measure CMP, specifically CMP-26). With respect to the comment regarding extirpation of listed salmonid species, the analyses presented in Chapter 12 do not support this assertion. The project will be permitted under the state and federal Endangered Species Acts; such authorization will not allow extirpation of the species by the permitted project (please also see the discussion of project approvals, permitting processes, and other required actions in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues). With respect to demonstration of mitigation effects to address potential impacts on salmonid through-Delta survival, the EIR in the section of Chapter 12 cited by the commenter cites evidence from studies conducted by Resource Management Associates (2020) for how changes in Delta geometry (including opening of leveed islands, analogous to the proposed tidal habitat mitigation restoration) affect hydrodynamics, which is the basis for the proposed mitigation. As described in Chapter 12, the analysis

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	demands truth, not falsehoods. Contrary to CEQA, the DEIR utterly fails to provide any fact-based analysis to demonstrate how the Project's dewatering of the Delta, exacerbated by the additional dewatering caused by climate change, can possibly be mitigated when there will be substantially less water in the Delta. The removal of water critically needed by fish and wildlife cannot be mitigated by removing even more water. DWR's analysis of these impacts nonetheless blithely assumes that all will be mitigated to less than significant levels through the implementation of habitat restoration. But it fails to show how this hypothetical habitat restoration can recreate habitat lost due to the massive reduction in flows this Project will cause, let alone how this speculative restoration will survive the additional adverse impacts of climate change. Id. DWR cannot show how theoretical habitat restoration can compensate for actual lost instream flows. Imperiled species cannot access hypothetical habitat that does not exist because essential flows are dramatically diminished. The DEIRs' substitution of positive-sounding, hypothetical scenarios for actual, fact-based negative realities infects the entire document. The same empty and misleading discussion of the Project's impacts that plagues its climate change discussion likewise infests its discussion of Aquatic Resources. DEIR 12-125 to 12-126. For each of these reasons, the DEIR fails its most fundamental function: to sound as the environmental alarm bell for this demonstrably harmful Project.	identified potential effects on salmonid through-Delta survival (e.g., Delta Passage Model) as a result of reduced flows downstream of the north Delta intakes during operations. This effect is largely due to modeled increases in juvenile salmonid routing into lower survival Delta pathways (i.e., Georgiana Slough). The hydrodynamic tidal habitat mitigation approach is intended to address this by designing and locating tidal restoration to address the hydrodynamic changes, thereby minimizing potential increased routing into lower survival pathways due to project operations. It is also important to note the restoration would be in place and providing benefits, depending on the conditions, even when the project is not operating. The extent of tidal habitat proposed for Mitigation Measure CMP, specifically CMP-25, has been added to Final EIR Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, based on hydrodynamic analysis conducted by DWR (2023).

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566-9	II. The DEIR Fails to Adequately Examine Disclose and Mitigate the Project's Public Trust Impacts The Public Trust Doctrine mandates that agencies consider the potential impact "upon interests protected by the public trust, and attempt, so far as feasible, to avoid or minimize any harm to those interests," "before . . . agencies approve" actions that may harm public trust resources. National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, 416. Resources and uses protected by the public trust doctrine "include the right to fish, hunt, bathe, swim, to use for boating and general recreation purposes the navigable waters of the state . . ." Marks v. Whitney (1971) 6 Cal.3d 251, 259-260. "[O]ne of the most important uses" of the public trust resources is "the preservation of those lands in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area." Id. CEQA review of a project does not necessarily or automatically satisfy the agency's affirmative duties to take the trust into account and protect public trust uses whenever feasible. San Francisco Baykeeper Inc. v. State Lands Com. (2018) 29 Cal.App.5th 562, 571. "[T]he determinative fact is the impact of the activity on the public trust resource." Environmental Law Foundation v. State Water Resources Control Board (2018) 26 Cal.App.5th 844, 859. Contrary to these mandates of the Public Trust Doctrine and CEQA's parallel duties to disclose this Project's severe impacts on public trust resources and uses, the DEIR fails to address	Please see response to comment 566-6 regarding the State Water Board authorities and the 2010 Delta Flow Criteria Report. The comment assertions regarding the considerations under the public trust obligations is not supported by the analyses contained in the EIR. Please refer to Chapter 33, Other CEQA-Required Analyses, specifically the section titled Public Trust Considerations. As described in that section, the State has an affirmative duty to protect public trust uses, including navigation, commerce, and fishing on navigable waters, whenever feasible. DWR has gone to considerable lengths to design the project to avoid impacts as well as develop environmental commitments and mitigation measures intended to reduce otherwise significant environmental effects to less-than-significant levels whenever feasible. Please see Common Response 17, Public Trust, regarding the DWR's evaluation of public trust resources. Please also refer to responses to comments 566-2 and 566-8 regarding the impact analysis and mitigation measures for fish and aquatic resources. As described in Chapter 12, Fish and Aquatic Resources, potential impacts on fish species were determined to be less than significant with mitigation.

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	and mitigate, where feasible, this Project's severe impacts to public trust resources--such as the Delta's beleaguered fish species. It omits information essential to an informed analysis of those impacts, starting with its failure to disclose, discuss and apply the information set forth in the Water Board's 2010 Delta Flow Criteria Report whose preparation was mandated by the Legislature when it adopted the Delta Reform Act and Water Code section 85086.	
566-10	It is indisputable that the Project will adversely affect numerous public trust resources, including flows and habitat necessary for fish, wildlife, and recreation. Indeed, in 2010 the Water Board concluded that much higher flows are necessary to protect public trust resources throughout the Delta. Its definitive determination in that regard cannot be ignored, despite the DEIR's irresponsible efforts to do exactly that. As noted, the Water Board's Delta Flow Criteria Report was mandated by the Delta Reform Act. That statute directed all state agencies, most obviously the agency responsible for management of the California Water Project - DWR - to fundamentally reform their practices to assure that the Delta is restored and protected. Yet as noted, despite the Project's staggering impacts on the Delta's beleaguered fish and wildlife, and the well-documented need for increased flows to protect them, the DEIR does not even cite, let alone apply, this report. See DEIR Chapter 37, References Cited.	Please see responses to comments 566-6 and 566-9 regarding the evaluation of public trust resources, the Delta Reform Act requirements, and the State Water Board's 2010 Delta Flow Criteria Report. As described in Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, the 2010 Delta Flow Criteria Report, which was artificially narrow in scope, was developed by the State Water Board per requirements of the Delta Reform Act, and at the same time did not take a wholistic view of management needs and did not consider other beneficial uses related to the allocation of water resources. The comment assertion of significant impacts on fish and wildlife as a result of the project are not supported by the analysis contained in the EIR. As demonstrated through multiple lines of evidence including quantitative modeling, Chapter 12, Fish and Aquatic Resources, concludes that impacts would be less than significant or less than significant with mitigation measures incorporated. Similarly, Chapter 13, Terrestrial Biological Resources, identifies impacts that are either less than significant or less than significant with mitigation measures incorporated.
566-11	While the DEIR very briefly touches on the public trust doctrine, at section 33.3, DEIR pages 33-5 to 33-9, this discussion exists only to justify DWR's failure to consider whether additional alternatives or mitigation measures that would protect impacts on fisheries could be feasible. Id. DWR argues that, because it is the lead agency for the Project,	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State

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	"evaluating project impacts within a regulatory scheme like CEQA is sufficient 'consideration' for public trust purposes." DEIR 33.3.1 p. 33-7. Yet DWR ignores the fact that the water conveyed by its Project is then sold and resold to water agencies and consumers for consumptive uses that directly harm the Delta's public trust resources by removing from the Delta the water those resources require.	Water Project as modified to include, if approved, the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Please refer to Common Response 17, Public Trust, regarding public trust concerns. Please refer to Common Response 3, Alternatives Development and Description, regarding the reasonable range of potentially feasible alternatives considered in the EIR. Please also refer to Common Response 1 regarding the use and incorporation of mitigation measures.
566-12	DWR's reliance upon the DEIR to satisfy its public trust obligations falls flat. As noted, the DEIR does not even acknowledge the Water Board's definitive report documenting the substantially increased flows that are necessary to restore the Delta. Nor does the DEIR address the Legislature's directly controlling findings that "[t]he Sacramento-San Joaquin Delta watershed and California's water infrastructure are in crisis and existing Delta policies are not sustainable. Resolving the crisis requires fundamental reorganization of the state's management of Delta watershed resources." Water Code § 85001(a) (emphasis added). These extreme crisis conditions are an aberration when viewed in the context of the Delta's historical, natural function. This recent collapse of the Delta's ecosystem is the direct result of the Delta's mismanagement by DWR and its federal counterpart, the Bureau of Reclamation. Instead of heeding its duty under the Public Trust Doctrine and the Delta Reform Act to halt and reverse this ecological tailspin, DWR drafted a DEIR that attempts to normalize this environmental catastrophe by treating it as an "existing" condition whose continuation poses no impacts. See e.g. DEIR pp. 12-100 to 12-105 (comparing probability of Juvenile Chinook through-Delta survival between	Please refer to responses to comments 566-6, 566-9, and 566-10 regarding the State Water Board's Delta 2010 Flow Criteria Report. Please refer to Chapter 1, Introduction, which discusses State Water Code Section 85001, as well as Sections 85002 and 85004, and its relation to the Delta Reform Act and the legislatures determination that new and improved Delta water conveyance facilities are an indispensable part of a comprehensive strategy to address the dual crisis of Delta ecosystem decline and Delta water supply infrastructure. This included consideration of measures to promote a more reliable water supply while meeting the needs for reasonable and beneficial uses of water, sustaining the economic vitality of the state, and improving water quality to protect human health and the environment. These factors are directly linked to sustaining and enhancing the management of resources in conformance with the Public Trust. Accordingly, and in accordance with the State's affirmative duty to protect public trust uses, the project has been designed to minimize environmental effects and includes environmental commitments and mitigation measures to reduce environmental effects. Many of the mitigation measures such as those for water quality, fish and aquatic resources (i.e., salmon), and terrestrial biological resources often have a secondary benefit of protecting or minimizing effects on a related public trust resource such as in-water recreational resources and protection of public lands. Please refer to Chapter 33, Other CEQA-Required Analyses,

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	alternatives and existing conditions); 12-125 to 12-126 (concluding that with tidal restoration and adaptive management impacts would be less than significant compared to existing conditions). But the Public Trust Doctrine requires the relevant agencies to consider more than whether this Project's impacts will worsen the unacceptably perilous status quo. Instead, it requires them to ask whether feasible alternatives exist that are more protective of these resources. DWR has failed to meet its affirmative duty to "attempt, so far as feasible, to avoid or minimize any harm to those interests." National Audubon, 33 Cal.3d at 426. Further, DWR's failure to consider additional alternatives that protect public trust resources also impermissibly impairs the Water Board's ability to conduct its responsible agency review of the Project under CEQA, as discussed above.	specifically the section titled Public Trust Considerations, for DWR's evaluation of public trust resources, as well as Common Response 17, Public Trust. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the CEQA requirements for defining the existing conditions baseline under CEQA and the comparison of project alternatives to that baseline. DWR appropriately and adequately described and applied a baseline throughout the entire EIR for all resources, including fish and aquatic resources evaluated in Chapter 12, Fish and Aquatic Resources. Please also see Common Response 1 regarding the scope of the project purpose and objectives. As described in that Common Response, as well as Chapter 2, Purpose and Project Objectives, the fundamental purpose of developing new diversion and conveyance facilities in the Delta is to restore and protect the reliability of SWP water deliveries and, potentially, CVP water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner. Common Response 3, Alternatives Development and Description, provides further information using the project objectives about the development of the reasonable range of feasible alternatives for evaluation in the EIR, including those suggested by commenters. As described in Common Response 3, inclusion of alternatives related to increase in-stream flow conditions in the Delta for non-consumptive beneficial uses do not meet most of the basic project objectives.
566-13	Equally important and unacceptable, the DEIR's failure to disclose and discuss the Project's severe environmental impacts fairly and fully as CEQA requires also prevents the Water Board from performing its critical function in restoring the Delta's public trust resources and uses. The Water Board must act to protect the public trust when it conducts its	The EIR adequately analyses and discloses environmental impacts in accordance with CEQA. Please see the Executive Summary table titled Summary of Delta Conveyance Project Impacts and Mitigation Measures for a summary of all impacts analyzed and discussed in depth in the EIR resource chapters, significance determinations, and applicable mitigation. Please refer to responses to comments 566-6, 566-9, 566-10, and 566-12

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	responsible agency review. DWR's omission of the information that the Water Board needs to perform this vital function presents an additional compelling reason why this DEIR must be rejected and redone.	regarding public trust.
566-14	III. CONCLUSION For each of these reasons, the DEIR is inadequate and must be revised to correct its significant omissions. No lawful decisions regarding management of the Delta can be based on this deficient document.	This information describes the structure comment letter and provides general closing text. It is not a comment on the specific contents of the EIR. Please see specific responses to specific comments in letter 566.
567-1	The following are the California Indian Environmental Alliance's (CIEA) comments to the California Department of Water Resources' (DWR) Delta Conveyance Office for the agency's draft Environmental Impact Report (EIR) for the Delta Conveyance Project in the Sacramento-San Joaquin Delta, California.	This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
567-2	Tribal Consultation and Public Will The Delta Conveyance Project is NOT supported by the will of impacted Tribes or the public[.]	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project. Please also refer to Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
567-3	Over multiple decades, Tribes and communities have repeatedly stated their opposition to the Delta Conveyance Project and every iteration it has appeared since Governor Pat Brown's proposal in the 1960's. Folks living adjacent to the source rivers and tributaries, which feed the Sacramento River;	Please see response to comment 567-2 regarding comments stating opinions of general opposition to the project and the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Please also refer to Common Response 16, Tribal Cultural Resources,

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	those in the footprint areas of the numerous associated project sites; and those in the receiving waters areas of the Sacramento River, through into the San Francisco Bay have voiced their opposition to this proposed project repeatedly. CIEA [California Indian Environmental Alliance] stands with all those in opposition to the project and feel that our voices have been blatantly ignored.	regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources were consistent with current State policies regarding Indigenous people in California. Please refer to Chapter 35, Public Involvement, regarding the outreach activities conducted throughout the EIR process and the multiple ways that public input has been gathered and considered during the development of the project. Please refer to Chapter 32, Tribal Cultural Resources, and Common Response 16, Tribal Cultural Resources, regarding DWR's consultation and engagement with Tribes on the project.
567-4	CIEA understands that Tribal and public engagement by DWR for the Water Resiliency Plan and the Delta Conveyance Project was limited. CIEA also understands that information provided at public and Tribal meetings was solely to notice to the public and Tribes, providing only options for the Project to proceed without genuinely considering a 'no Action Alternative' or solutions that are more innovative than diversions, conveyance and storage.	The comment assertion that Tribal and public engagement was limited for the Delta Conveyance Project is not consistent with the contents of the EIR. Please refer to Chapter 35, Public Involvement, and Common Response 2, Public Outreach Activities, for information regarding the outreach activities conducted throughout the EIR process to provide public information and encourage public participation and comment. See also Chapter 32, Tribal Cultural Resources, which describes consultation and engagement activities with Tribes. Appendix 32A, Tribal Consultation and Engagement Log, lists the Tribal consultation and informational meetings that have occurred for the project. Please see Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR and Common Response 4, No Project Alternative Description and Analysis, regarding the CEQA requirements for describing and evaluating a No Project Alternative in an EIR and how the No Project Alternative for the Delta Conveyance Project meets those requirements.

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567-5	The language embedded within the draft EIR indicates that the State continues to move forward with its original decision to develop a Delta Conveyance Project or some iteration of it. T [sic] appears that this decision had already been made before comments had been received from the public or from all Tribes who will be impacted by the construction, and the operation of the conveyance system. This includes Tribes in the source and receiving waters in addition to those adjacent to the facilities that would be developed. It is disconcerting that the state has decided that this Project must move forward regardless of the public will and regardless of the perspectives of Tribes in the Source, receiving and footprint area of the project. This project does not adhere to basic environmental justice principles of "free and prior informed consent."	As described in Chapter 3, Description of the Proposed Project and Alternatives, identification of the proposed project does not indicate that DWR has decided to approve the proposed project. DWR will not make a decision to approve the project until after it has addressed public comments on the Draft EIR, certified the Final EIR, made all necessary findings, and taken any other actions required to comply with CEQA. The proposed project has been designed to minimize impacts where possible. Please also refer to the Efforts to Minimize Delta Community Effects technical memorandum in the Engineering Project Report regarding the engineering and design modifications made to reduce Delta community effects (Delta Conveyance Design and Construction Authority 2022). Please refer to Common Response 16, Tribal Cultural Resources, regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources were consistent with current State policies regarding Indigenous people in California and regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Additionally, Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources.
567-6	If the goal of this project is to find solutions to work towards Governor Newsom's 30x30 Plan that could benefit the citizens of the state of California, why is the state ignoring the voices of those communities and the California Tribes who will be impacted? This is contrary to public trust doctrine and is indifferent to the Will of the People. We understand that the state is operating with the goal of securing the delivery of water to Santa Clarita, San Bernardino, San Gorgonio and other counties outside of our region, however there are likely other ways to arrive at the same outcome and the public deserves to have those options researched and considered thoroughly.	Please refer to responses to comments 567-3 and 567-4 regarding public outreach efforts conducted throughout the EIR process to provide public information and encourage public participation and comment. Please also refer to response to comment 567-5 regarding DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources and the consideration of Tribal perspectives in DWR's decision on whether to approve the project.

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		Please refer to Chapter 33, Other CEQA-Required Analyses regarding public trust considerations under CEQA. Additionally, please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources. Please see Chapter 1, Introduction, regarding the current planning effort and the identification of new diversion and conveyance facilities in the Delta identified in the 2020 California Water Resilience Portfolio released by the Newsom administration. Please also refer to Chapter 2, Purpose and Project Objectives, regarding the purpose and project objectives. Please see Common Response 3, Alternatives Development and Description, for a discussion of the scope of alternatives analyzed to meet CEQA requirements and the alternatives screening approach.
567-7	Scoping Period, COVID-19, and Meaningful Consultation to Tribes As stated in Chapter 35: Public Involvement of the Draft EIR, scoping period was held between January 15, 2020 till April 17, 2020, during the onset of the COVID-19 pandemic. 8 total meetings were held between February and March 2020, a time of unexpected turmoil. At the time, the novel COVID-19 was rampant and globally affected society. Information was sparse and with Governor Newsom implementing a Shelter in Order Executive Order, there was too much preoccupation with this new illness. The chapter also mentions the forms of announcements used by DWR to ensure that the information for the scoping meetings were received by the public. Press releases, emails, and advertisements in 7 newspapers across California do not account for meaningful consultation, especially in regards to Tribes.	The comment's assertion that DWR's public engagement was insufficient is not supported by the project's robust record of outreach and consultation in accordance with state policies and CEQA. Please refer to Chapter 32, Tribal Cultural Resources, and Chapter 35, Public Involvement, regarding the outreach activities conducted to engage the public and California Tribes throughout the EIR process. Please also see Common Response 2, Public Outreach Activities, regarding the project's outreach program and Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. As described in response to comment 567-4, Appendix 32A, Tribal Consultation and Engagement Log, documents the robust Tribal consultation and informational meetings that have occurred for the project.

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567-8	Alternatives to Delta Conveyance Project "An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives that do not meet the underlying purpose or are infeasible." (Appendix 3A, section 3A.3, page 3A-8). Alternatives were based on a rubric that includes: climate resiliency, seismic resiliency, water supply reliability, operational reliability, avoids or substantially lessen impacts 9 alternatives including the proposed project were examined. Who came up with these alternatives? Why are cultural and Tribal cultural resources not considered as a matrix to measure if these projects and alternatives are abiding to CEQA?	The purpose of the EIR is to analyze alternatives that could feasibly achieve most of the basic project objectives and potentially avoid or substantially lessen one or more of the significant effects of the project. Please refer to Chapter 2, Purpose and Project Objectives, regarding the purpose and project objectives. While cultural and Tribal cultural resources are not part of the project's purpose and objectives, the presence of known cultural resources was considered along with other potential environmental impacts during alternatives screening. The EIR analyzed impacts of the alternatives on cultural resources in Chapter 19, Cultural Resources, and impacts on Tribal cultural resources in Chapter 32, Tribal Cultural Resources, as required by CEQA.
567-9	Agriculture The Delta Conveyance project will affect agricultural land and business, "The construction of new water conveyance facilities, such as intakes and shafts, would result in permanent conversion of Important Farmland because they involve physical features or structures that would remain in place post construction..." (15.3.3 15-36 Line 9-11). Agriculture is a huge industry in California and the construction of this conveyance facility will harm agriculture owners and workers. This conveyance facility will not only harm natural waterways but it would also harm the agricultural economy. The Agricultural industry in the Delta represents, "...2% of California's agricultural land and approximately 2% of agricultural production in the state. The total gross revenue of farms within the Delta was $965 million in 2016..."(15-4 Line	As described in Chapter 15, Agricultural Resources, less than one percent of Important Farmland within the study area would be affected by construction of the project. While the conversion of Important Farmland within the study area would be considered significant, Mitigation Measure AG-1 would require that any permanently converted Important Farmland be mitigated at an acreage ratio of at least 1:1 through a combination of acquisition and dedication of agricultural land, acquisition of development rights or conservation easements to permanently protect agricultural land, or payment of in-lieu fees to fully fund the acquisition and maintenance of such real property interests by a third party. Additionally, Appendix 15B, Agricultural and Land Stewardship Considerations, describes the methodology employed during the initial siting and design process to greatly minimize the extent of farmland that would be permanently converted. Please refer to Chapter 17, Socioeconomics, section titled Agricultural Economics in the Statutory Delta and Project Area, regarding potential socioeconomic changes in the Delta associated with agricultural resources. Depending on the alternative, the project is expected to result in

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	27-29). There are a lot of agricultural growers that depend on the waterways within the Delta. The construction of the the Delta Conveyance Project will cause major permanent impacts to agricultural resources due to, "land that cannot be returned to farmland because it now contains, for example, a pump station, intake, forebay sedimentation basin or farmland has been permanently modified in a manner that makes it unsuitable for growing crops…" (15-25 Line 11-13). Continuing with the Delta Conveyance project will negatively impact the agricultural industry and growers. The growers could possibly agree to this construction and possibly end up with no land after it.	a minor reduction in agricultural employment as a result of conversion of agricultural lands, from between 49 to 69 jobs full-time equivalent (FTE) annual jobs.
567-10	Air Quality The Delta Conveyance EIR outlines the following air pollutants to be present during construction; pollutants and precursors: ROG, NOx, CO, SO2, PM10 AND PM2.5 and GHG's (greenhouse gases): CO2, CH4, N2O, SF6 AND HFC's. These chemical compounds will have significant impacts to air quality and pollute the air. Most of these pollutants will be coming from machinery that will be used during construction including, "...off-road equipment exhaust, marine vessel exhaust, locomotive exhaust, helicopter exhaust, employee and haul truck vehicle exhaust…" (23-41 Lines 7-8). The construction of the delta conveyance project would release these chemicals in the air throughout the lifetime of the project and can cause major health effects for wildlife, vegetation, construction workers and residents. This project was proposed and planned to 'conserve' and divert water to different areas in the Delta, the construction of the Delta Conveyance Project creates a whole new issue concerning Air Quality.	For significant air quality impacts during construction, mitigation measures are identified to reduce impacts to a less-than-significant level to the extent possible. As shown in Chapter 23, Air Quality and Greenhouse Gases, the analysis concludes that regional impacts on air quality would be less than significant after mitigation for all alternatives (Impacts AQ-1 through AQ-4). Global impacts from GHG emissions would likewise be less than significant after mitigation for all alternatives (Impacts AQ-9 and AQ-10). Potential human health effects from exposure to project emissions are assessed in Impacts AQ-5 and AQ-6. The impact analysis concludes that all alternatives would result in significant impacts on localized air quality at certain locations and during certain construction years, and that construction of Alternatives 2a and 4a would result in health risk at one location north of Intake A. Effects on wildlife species and natural communities from construction activities are described in Chapter 13, Terrestrial Biological Resources. As described in Chapter 13, potential impacts would be mitigated to a less-than-significant level. Please see Chapter 2, Purpose and Project Objectives, which describes the

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		Delta Conveyance Project objectives that would further DWR's fundamental purpose to develop new diversion and conveyance facilities in the Delta.
567-11	Not only would wildlife and vegetation be affected by the construction of the Delta Conveyance Project but, "Individuals residing near the water conveyance alignment may also be exposed to increased health risks from air pollution resulting from construction and O&M activities." (ES.5.1.19). The individuals that could be affected are the workers working on this project and individuals that reside near the construction sites. During the construction process, "...exceedances of air district thresholds would still occur, resulting in a significant impact..." (EIR 23.0.1 23-2). The Delta Conveyance Project relies on homeowners near the construction site to install filtration systems in their home to prepare for construction and the pollutants it brings. These homeowners are recommended to get these filtration systems but could also deny the assistance of DWR and face significant and unavoidable impacts to their health. The best way to ensure the safety and well-being of residents near the delta would be denying the construction of this project.	Potential human health effects from exposure to project emissions are assessed in Impacts AQ-5 and AQ-6. Please refer to response to comment 567-10 for additional discussion regarding the health effects evaluated in Chapter 23, Air Quality and Greenhouse Gases, and the biological resources evaluation in Chapter 13, Terrestrial Biological Resources. The project would be implemented in a manner intended to minimize onsite air quality emissions and the potential for adverse health effects. As described in Appendix 3B, Environmental Commitments and Best Management Practices, all feasible onsite emissions reduction measures have been incorporated into the project design. These include performance standards to ensure construction contractors utilize newer offroad (including marine and locomotive) and on-road engine technologies that are significantly cleaner and generate fewer emissions than older models. Fugitive dust emissions would be reduced through implementation of a robust dust control plan and best management practices at new concrete batch plants. These environmental commitments will limit onsite construction emissions to the greatest extent practical, reducing both regional and local pollutants and associated human health impacts. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project.
567-12	The effects that this project will have on the air quality should be deliberated. There is already an issue with the project itself and the amount of pollution that would come out of this project due to construction. Instead of constructing the Delta Conveyance Project that creates new issues, we should begin to think about natural ways to conserve our resources. Trying	Effects on air quality are disclosed in the EIR Chapter 23, Air Quality and Greenhouse Gases. Please refer to Common Response 15, Air Quality and Greenhouse Gases, regarding compliance with air quality regulations and permits. For significant air quality impacts during construction, mitigation measures are identified to reduce impacts to a less than significant level to the extent possible. Please refer to response to comment 567-10 for

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	to create solutions to problems in the Delta are creating more issues than fixing them.	additional discussion regarding the health effects evaluated in Chapter 23. While water efficiency and conservation are important goals, these actions alone would not meet the project purpose and objectives and were screened from further consideration as alternatives to the proposed project in the EIR as detailed in Appendix 3A, Identification of Water Conveyance Alternatives. The Delta Conveyance Project is one part of a diverse portfolio of strategies that would assist in meeting California's water management needs and would not preclude other measures, such as nature-based strategies, that may be taken by DWR or other entities.
567-13	Tribal Cultural Resources DWR met with various Tribes surrounding the Delta to survey how this project would affect them. The Tribes had met with DWR to discuss the importance and destruction the Delta Conveyance Project would bring from construction. The Tribes had, "…consistently drew DWR's attention back to the Tribal perspective about the interconnected nature of these features" (32.1.3 32-20, line 24-25). Throughout these meetings, Tribes have continuously tried to share and educate DWR on the importance of keeping these areas intact. The Delta Conveyance Project could potentially affect many sacred sites, cultural resources, native vegetation all over California stemming from the Delta Conveyance Project. Through these meetings between DWR and the Tribes affected by the Delta Conveyance Project, the Tribes explained that, "…the full cultural value of a single archaeological site could not be fully understood without understanding of the plant communities, waterways and trail systems that are the reasons	DWR recognizes that the Tribes perceive that project effects would extend beyond the study area due to the interconnectedness of waterways. As described in Chapter 32, Tribal Cultural Resources, in the section titled Study Area, no construction would occur outside of the Delta counties, and the proposed project and alternatives would not change operational criteria associated with upstream reservoirs. Some indirect operational changes could occur because of the interconnectedness of the waterways, but modeling analysis has indicated that these changes would be negligible (see Chapter 5, Surface Water). Because changes to reservoir storage and river flows would be minimal, they would not have the potential to affect resources upstream from the Delta and those areas are not included in the study area. Additionally, there would be no physical alterations and minimal variations in surface water flows south of the Delta in SWP and CVP service areas. Therefore, the study area does not include the potential for physical impacts in areas upstream of the Delta region or in the south-of-Delta SWP and CVP service areas. Please see Common Response 16, Tribal Cultural Resources, for a discussion of the identification of the Delta Tribal Cultural Landscape (Delta TCL) based on extensive consultation with Tribes that impressed upon DWR

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	that the archaeological site exists and would have been used in tandem with the village or mount that is the archaeological site." (32.1.3 32-20, Line 26-29). Traditional Territory is not only in some parts of California, it is California, these territories are in every portion of the state - each Tribe has areas that are culturally significant and/or provide subsistence foods that the regional Tribes are trying to maintain or restore. The Tribes involved have explained that everything is interconnected with another and if this project moves forward, it would sever links in the system and thereby disrupt other Traditional areas in and around [the] Delta.	the interrelated and interconnected relationships between individual resources that are best understood as a wholistic landscape. DWR provided information about the project to each of the consulting Tribes and invited each Tribe to provide DWR with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. Any information consulting Tribes chose to share with DWR regarding culturally significant areas within the study area factored into DWR's finding that the Delta TCL meets the criteria for listing in the California Register of Historical Resources and thus qualifies as a Tribal cultural resource under CEQA. Although the analysis in Chapter 32 concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. For example, DWR would implement Mitigation Measure TCR-1a to incorporate preconstruction surveys and feasible avoidance or protection measures in the design, construction, operations, and maintenance activities to avoid or protect Tribal cultural resources. Where avoidance or protection is not feasible, DWR would implement other mitigation measures (Mitigation Measures TCR-1b, TCR-1c, and TCR-1d), as applicable. This would include mitigation by way of resource-specific treatment in consultation with affiliated Tribes and the incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and DWR will continue to consult with affiliated Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts.

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567-14	The Delta Conveyance EIR acknowledges the importance the Delta is for Tribes, "...Tribes practice ceremony such as traveling with seasonal salmon runs; gathering plants for crafts, medicine, ceremony and food; fishing and hunting; education; maintaining traditional cultural and ecological knowledge; [etc]..." (32.1.3.1 32-21, line 39-41). In the EIR, the uses and importance of the Delta are listed and yet the project is still considered? It is almost like this EIR is outlining that only a small disadvantaged community is utilizing the Delta so it would not affect society as a whole. Also considering the fact that Tribes and Tribal Members are always brought in and asked to share their 'TEK' Traditional Ecological Knowledge with agencies on other projects but the agencies almost all but ignore the TEK and cultural perspectives that Tribes bring to this project.	DWR recognizes, and the EIR acknowledges, the Delta's importance to Tribes. Chapter 32, Tribal Cultural Resources, in the section titled Sacramento–San Joaquin Delta Tribal Cultural Landscape, describes the Delta Tribal Cultural Landscape, which was evaluated as a cultural (sometimes called ethnographic) landscape, which relies on the continued recognition of culturally important processes in addition to historical trends. Please refer to Common Response 16, Tribal Cultural Resources, regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources were consistent with current State policies regarding Indigenous people in California and regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Please also refer to Common Response 16 regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. The Chapter 32 section titled Consultation and Engagement with Tribes describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. DWR is committed to continued understanding and incorporation of Tribal knowledge through close collaboration and engagement on the implementation of the mitigation measures as described in Chapter 32. Please see response to comment 567-5 regarding how DWR will not make a decision on the project until after addressing public comments on the Draft EIR, certifying the Final EIR, making all necessary findings, and taking any other actions required to comply with CEQA.
567-15	The construction that would take place for the delta conveyance could potentially disrupt the waterways and native vegetation that are in tandem with the Delta. The construction	Please refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation

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	of the Delta [sic] would include several 'character-defining' features to change; there would be new permanent structures implemented, tunneling, ground-disturbing activities, all of which limits a Tribes accessibility. The construction would ruin the surrounding area and its natural beauty with dust clouds and trash created from constructing the Delta Project. This man-made project is supposed to help with climate change; why hasn't there been any consideration to do it naturally? There has always been a need for Tribes to be involved when discussing climate change. The EIR outlines that DWR understands that the Delta may not be a sacred site itself but is connected to other sacred sites, traditional territory somewhere along the water way. It is understood that the construction of the Delta Conveyance Project, "Construction activities such as site preparation and the construction of new, permanent, facilities or modification to existing facilities may materially impair character-defining features of a Tribal cultural resource." (32-29 Line 39-1). These cultural resources need to stay intact because these are some of the last remaining cultural resources that these Tribes still have access to and utilize. Their land has already been taken from them, and this project would take even more of these natural resources away.	for Tribal cultural resources. Please also refer to response to comment 567-13 for a discussion regarding the impact analysis and mitigation measures for Tribal cultural resources as well as DWR's commitment to continuing consultation and engagement with Tribes as part of the project's mitigation measures. Although the analysis in Chapter 32, Tribal Cultural Resources, concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. Please see Common Response 6, Climate Resilience and Adaptation, which discusses the range of climate change analyses provided in the EIR and how DWR has exceeded the CEQA requirements by including a dedicated chapter on climate change (Chapter 30, Climate Change), which discusses how trends in observed and projected climate change clearly indicate the need for the project and how it can enable adaptation to potential climate change impacts in the study area. Common Response 6 also provides discussions of how the project would enable adaptation to future changes in temperature and precipitation patterns and ensure water supply reliability in the face of increasing hydrological extremes.
567-16	Water Quality There is a considerable effect that would take place if the delta conveyance were to be built. This project is incredibly vast and the delta conveyance only covers 1% of land in California and has numerous effects/affects that relate to the construction of this delta conveyance. The Delta Conveyance Project will produce water contaminants due to, "Construction related	The comment assertion of releasing contaminants into the environment and reducing the water quality in the Delta is not supported by the analysis contained in Chapter 9, Water Quality, and Chapter 25, Hazards, Hazardous Materials, and Wildfire. The potential impact on water quality from construction-related pollutants has been fully described and analyzed in Chapter 9, Water Quality. Impact WQ-1 describes that, based on the information that is currently known of the type of construction activities that could result in discharges of potential pollutants into receiving waters,

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	activities with the potential to affect water quality include all construction that would occur on the river side of levees and particularly in-river construction activities." (9-43 Line 37-38). This project was created to conserve water and yet through this initiative, could pollute the water with contaminants. During the construction of the Delta Conveyance Project, "[there could be] types of materials and contaminants that may be handled, stored, used or produced at a project facilities during project construction, and which could be released to the environment and the related fate, transport and harmful characteristics of the contaminants." (9-30 Lines 26-28). This project could be introducing harmful contaminants into the environment and completely ruining the water quality in the Delta.	the impacts are determined to less than significant. Preparation and implementation of SWPPP(s) is required prior to construction, occurs as part of securing permits for construction, and will occur as described in Environmental Commitment EC-4b. Determining compliance with NPDES permit and SWPPP requirements occurs throughout the construction timeframe through the use of monitoring and reporting certain constituents to regulatory agencies such as the Regional Water Quality Control Board. Furthermore, the transport, handling, use, and disposal of these materials would comply with regulations enforced by regulatory agencies such as CUPAs and Cal/OSHA. Environmental Commitment EC-2 requires Hazardous Materials Management Plans and Environmental Commitment EC-3 requires Spill Prevention, Containment, and Countermeasure Plans be developed and implemented. As described in Chapter 25, Mitigation Measure HAZ-2 will require a Phase I environmental site assessment be completed before construction, and a Phase II environmental site assessment completed if the Phase I assessment identifies likely contaminants. Cumulative water quality impacts from construction are disclosed in the Cumulative Impacts of the Project Alternatives section of Chapter 9, and were determined to be less than significant.
567-17	The Delta Conveyance project is an incredibly invasive project. Although this project was created with the idea of moving towards fixing climate change and working towards a ‘greener’ earth, a lot of these issues are significant and can harm the Delta in more ways that we can imagine.	The EIR has been prepared in compliance with CEQA and has evaluated the potential environmental impacts on the Delta. Please refer to Chapters 7-32 of the EIR for analyses of potentially significant environmental impacts of the project and proposed mitigation measures. Please also refer to Chapter 2, Purpose and Project Objectives, regarding the purpose and project objectives.
567-18	Tribes have worked tirelessly to ensure that their ancestral lands remain protected. Tribes have worked on creating definitions for their practices, taken the time to show and outline and fight for their ancestral land. "Many traditional indigenous communities throughout the world have given a special status to natural sites such as mountains, volcanoes,	Please see response to comment 567-14 regarding DWR‘s understanding and recognition of the Delta’s importance to Tribes, as documented in Chapter 32, Tribal Cultural Resources. Please also refer to response to comment 567-13 for discussions regarding the Tribal cultural resources study area, the impact analysis and mitigation

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	rivers, lakes, springs, caves, forest groves, ponds, coastal waters and entire islands. Many of these have been set aside as sacred places. The reasons for their sacredness are diverse. They may be perceived as abodes of deities and ancestral spirits; as sources of healing water and medicinal plants; places of contact with the spiritual realm, or communication with a "more than-human" reality; and sites of revelation and transformation. They are sometimes the burial grounds of ancestors, places of pilgrimage, the locale of a temple, shrine or church, or sites associated with special events, saints and spiritual leaders." (from Sacred Natural Sites: Guidelines for Protected Area Managers, Robert Wild and Christopher McLeod, Editors, 2008). There are Traditional Territories that are not considered in this plan, there are many areas that are connected to the Delta Conveyance that have great significance to the Tribes in the Delta that could possibly be affected by the construction of the project. The EIR admits that they understand that these areas will be affected when the construction occurs because these sites are in tandem with the construction site. Who knows of the effects it would have in the area when there hasn't been any consultation that happened in those areas.	measures for Tribal cultural resources, and DWR's commitment to continuing consultation and engagement with Tribes as part of the project's mitigation measures. As described in response to comment 567-4, Appendix 32A, Tribal Consultation and Engagement Log, documents the robust Tribal consultation and informational meetings that have occurred for the project. Additionally, Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please also see Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources.
567-19	CIEA [California Indian Environmental Alliance] has worked with over 80+ tribes in the Bay Area and Central Valley to establish Tribal beneficial uses and the state is tasked with supporting "Beneficial uses" of the waters of the state that may be protected against water quality degradation include the preservation and enhancement of fish, wildlife, and other aquatic resources or preserves." (A. Beneficial Uses.) There is great importance placed on these Tribal beneficial uses, these outlines [sic] certain aspects to think about concerning the	Please see response to comment 567-14 regarding DWR's understanding and recognition of the Delta's importance to Tribes, as documented in Chapter 32, Tribal Cultural Resources. Language has been added to Chapter 32 to acknowledge that DWR recognizes that the Bay-Delta Water Quality Control Plan is currently in the process of being updated and that the State Water Board is considering including Tribal Beneficial Use designations.

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	environment. Native American Tribes heavily rely on the environment for materials and ceremony materials. Tribes utilize waterways for fishing, there are Tribes that utilize minerals and plants in a way that maintains connection of place and balance. Tribes continue to practice fishing and hunting within their territories, these are all activities that rely on natural resources that would be disrupted by the construction of the Delta Conveyance Project.	Please also refer to response to comment 567-13 for discussions regarding the Tribal cultural resources study area, the impact analysis and mitigation measures for Tribal cultural resources, and DWR's commitment to continuing consultation and engagement with Tribes as part of the project's mitigation measures.
567-20	We do see in the DRAFT EIR that DWR states that under CEQA Guidelines that the EIS will explore significant environmental issues, reasonable alternatives and mitigation measures. The notice qualifies this stating that an "EIR need not consider every conceivable alternative to a project." We disagree this project is massive, costly and will result in unmitigatable environmental impacts. We assert that the EIR should not be developed until the state has not definitively made the case that the project is required to meet state needs, that there are no alternatives, and that environmental and cultural impacts can be avoided to the satisfaction of impacted Tribes and the public in the sources, footprint area and receiving waters of the Sacramento/Northern Sierra-Nevada watershed. "Each of the project alternatives involves different sets of environmental trade offs affecting vast portions of California (not only study areas, but also the export areas)." (33-2 Line 32-34) "If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." (39-2 Line 24- 25)	Please refer to response to comment 567-8 regarding the purpose of the EIR. DWR considered and screened numerous alternatives as presented in Appendix 3A, Identification of Water Conveyance Alternatives. Alternatives that were considered further and analyzed in the EIR were judged to meet most of the project objectives and potentially avoid or substantially lessen one or more significant environmental impacts of the project. Other alternatives that were screened from further review may have merit as stand-alone or separate projects but did not meet the criterion needed to be considered an alternative to the proposed project. During the decision-making process following publication and certification of the Final EIR, DWR, as CEQA lead agency will consider the feasibility of alternatives, their significant environmental impacts and other social and economic considerations prior to making a decision on approval or denial of the proposed project or a project alternative. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the basis and appropriate scope of project objectives and goals. Common Response 3, Alternatives Development and Description, discusses the requirements for analyzing a reasonable range of alternatives and explains the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project.

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		Please refer to EIR Chapter 1, Introduction, section titled Background, which provides the history and complex issues that led to development of the Delta Conveyance Project. The EIR discloses significant impacts, proposes mitigation measures, and determines when a significant unavoidable impact would remain with mitigation applied. Because it is a project with significant and unavoidable impacts, a statement of overriding considerations is required should DWR decide to approve the project. The statement of overriding considerations would include discussion of the balance of applicable economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the project against its unavoidable environmental risks and would be considered by the decisionmaker when determining whether to approve the project. Please also refer to Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project.
567-21	Fish, Aquatic Flora and Fauna "A more recent synthesis of contaminant studies described multiple lines of evidence showing that contaminants negatively affect species of management concern in the Delta (Fong et al. 2016). Fong et al. (2016) reported that many contaminants detected in Delta waters exceed regulatory standards and most water samples contain multiple contaminants. They also summarize the multiple studies that have found sublethal, lethal, chronic, and acute toxicity of Delta water to test species and species of management concern in the Delta, including Delta smelt and salmon" (Chapter 12, section Contaminants, page 12-16). How will this project protect water quality standards? Are	Please see response to comment 567-16 regarding effects of the project on water quality constituents during construction. Chapter 9, Water Quality, provides a complete assessment of impacts of project operations on water quality in Impacts WQ-2 through WQ-17 for boron, bromide, chloride, electrical conductivity, mercury, nutrients, organic carbon, selenium, pesticides, trace metals, total suspended solids and turbidity, and cyanobacteria harmful algal blooms. The assessments evaluated effects of project operations on water quality relative to applicable water quality standards, or other thresholds if no water quality standard exists, and found that project operations would have a less than significant impacts on water quality. Chapter 12, Fish and Aquatic Resources, provides an assessment of potential effects to turbidity during construction (Impact AQUA-1) and operations and maintenance (see in particular Impact AQUA-6). Through environmental commitments described in Appendix 3B,

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	there standards? Will the project further contaminants within the surrounding area? What about areas away from the projected area? Will instream and turbidity change the migration and spawning areas of fish?	Environmental Commitments and Best Management Practices, and mitigation measures described in Chapter 12, the impacts were concluded to be less than significant with mitigation incorporated.
567-22	1. Significant Impacts are projected to aquatic habitat, fish and wildlife as a result of project mitigation activities. Significant impacts and potentially irreversible Impacts of [sic] are likely to occur from construction and wetland creation.	The analysis contained in the EIR does not support the assertion by the comment that the project will have significant impacts on aquatic habitat, fish, and wildlife as a result of mitigation activities. The impacts of implementing mitigation measures are analyzed for each resource in the Mitigation Impacts sections of Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources. As described in the Executive Summary, CEQA significance conclusions are provided for each of the numbered direct or indirect impacts on the physical environment based on substantial evidence provided in the project alternative analyses and judged against defined impact significance thresholds. If impacts (prior to the implementation of mitigation) are judged to be significant, potentially feasible mitigation measures are identified to reduce significant impacts of the proposed project and project alternatives. As analyzed, the implementation of mitigation measures for impacts on aquatic and terrestrial resources would reduce impacts to a level of less than significant with mitigation under CEQA.
567-23	2. Impacts that will result in instream flows and taking an additional 300,000 to 500,000 acre feet of additional water per year that current take, are not mitigated by wetlands creation. Diverting water from upper watersheds has detrimental impacts to subsistence foods including salmon.	The comment assertion that impacts would not be mitigated by wetland creation is not consistent with the analysis in the EIR. Chapter 12, Fish and Aquatic Resources, cites available sources to support the rationale for mitigation, for example how changes in Delta geometry (including opening of leveed islands, analogous to the proposed tidal habitat mitigation restoration) affect hydrodynamics, which is the basis for the proposed mitigation (Mitigation Measure CMP, specifically CMP-25). The extent of tidal habitat proposed for this mitigation measure is in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, and is based on hydrodynamic analysis conducted by California Department of Water Resources (2023). The project alternatives do not divert water from the upper watersheds but from the north Delta;

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		regardless of the source of water diverted, impacts on fish and aquatic resources, including salmon, were analyzed and concluded to be less than significant because of operational criteria combined with mitigation as necessary.
567-24	Chapter 25- Hazards, Hazardous Materials and Wildlife 25.1.2- https://cadwr.app.box.com/s/cv5xu0epplwxdz0v9kjg2hakhn6bp3ge 1. The creation of wetlands and proposed construction activities will significantly disturb soils and sediments and likely suspend contaminants such as Mercury and other heavy metals and agricultural contaminants bioaccumulate in organisms and adversely affect health in humans, fish and wildlife. A wide variety of pesticides, including insecticides, herbicides, and fungicides, have been used throughout the study area for decades.	Please see the mercury and methylmercury discussion in the Bioaccumulative Constituents section of Chapter 26, Public Health. Legacy pesticides, including mercury, are discussed under Impact PH-3 in Chapter 26. The EIR discloses that dredging activities could cause temporary resuspension of contaminant-containing sediments, which could reintroduce legacy pesticides and mercury to the water column. However, this would only occur periodically, and sediment resuspension would be temporary and localized, thereby limiting exposure of these contaminants to the environment. Please also see Chapter 9, Water Quality, Impact WQ-6, for the analysis of the project's potential effects on mercury resulting from facility operations and maintenance. While operations and maintenance of the project could result in a less-than-significant impact on increasing mercury concentrations, the creation of tidal wetlands via the Compensatory Mitigation Plan has a potentially significant impact. However, Mitigation Measure WQ-6 would reduce the potentially significant CMP mercury impact to less than significant. Please also refer to Chapter 12, Fish and Aquatic Resources, for an analysis of potential effects of anthropogenic contaminants on fish and aquatic organisms. Please also refer to Chapter 13, Terrestrial Biological Resources, for an analysis of potential effects of various contaminants on wildlife. The comment is correct that due to historic agricultural pesticide and fertilizer use throughout the project area, hazardous materials could be present in soils. Please see Chapter 25, Hazards, Hazardous Materials, and Wildfire, for measures to reduce impacts related to pesticides, including Environmental Commitments EC-2 and EC-3, regarding hazardous materials

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		management, spill prevention, and containment plans, and implementation of Mitigation Measure HAZ-2, which would require identification and evaluation of sites of concern to further reduce the potential for expose to hazardous materials such as pesticides.
567-25	Chapter 25- Hazards, Hazardous Materials and Wildlife 25.1.2- https://cadwr.app.box.com/s/cv5xu0epplwxdz0v9kjg2hakhn6bp3ge 2. In addition, petroleum deposits underlying the study area could result in the migration of oil or natural gas from reservoirs into shallow strata.	Please see Chapter 25, Hazards, Hazardous Materials, and Wildfire, Impact HAZ-2, for an analysis of the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The impact was found to be less than significant with the implementation of Mitigation Measure HAZ-2, which would require soil and groundwater testing in areas where historical contamination has been identified or where contamination is suspected. Also, see Chapter 27, Mineral Resources, section titled Natural Gas Resources, for a discussion of the location and categories of oil and natural gas wells in the study area.
567-26	We are opposed to this project because of the violations to CEQA, the dangers to an already precarious ecosystem, the deleterious effects to cultural resources during construction and operations of the Delta conveyance, and because it will irreparably harm the cultural continuance of the Sacramento and Bay Delta Tribes.	The EIR has been prepared in accordance with CEQA and adequately discloses the potential, scope, severity, and magnitude of potential impacts for the environmental resources analyzed in Chapters 5 through 32. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project. As described in Chapter 12, Fish and Aquatic Resources, all potential impacts analyzed would result in less than significant impacts or less than significant impacts after the application of mitigation. As described in Chapter 13, Terrestrial Biological Resources, all potential impacts analyzed would result in no impact, less than significant impacts, or less than significant impacts after the application of mitigation. As described in Chapter 19, Cultural Resources, the project could result in significant and unavoidable impacts on historic cultural and archaeological

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		resources even after the application of mitigation measures. As described in Chapter 19, mitigation measures have been identified to avoid or minimize impacts where feasible. Please refer to response to comment 567-13 for discussions regarding the impact analysis and mitigation measures for Tribal cultural resources as well as DWR's commitment to continuing consultation and engagement with Tribes as part of the project's mitigation measures. Please also see Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources and regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project.
567-27	This is the time when we are looking to implement Nature Based Solutions, a time when the Tribal Truth and Healing Council is seeking solutions. This project does not support these two goals, instead it moves us away from the goals of these projects.	Please see Chapter 2, Purpose and Project Objectives, which describes the Delta Conveyance Project objectives that would further DWR's fundamental purpose to develop new diversion and conveyance facilities in the Delta. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the adequacy of the project's purpose and objectives under CEQA. The Delta Conveyance Project is one part of a diverse portfolio of strategies that would assist in meeting California's water management needs and would not preclude other measures that may be taken by DWR or other entities, which may include the nature-based solutions mentioned by the commenter. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives development process and the range and scope of alternatives considered. Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the

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		identification and consideration of Tribal cultural resources. Please refer to Chapter 32 and Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Please also refer to Common Response 16 regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources were consistent with current State policies regarding Indigenous people in California.
567-28	Please listen to California Tribes and do not advance the Delta Conveyance Projects seek more sustainable solutions that utilize solutions that these two other programs can provide.	Please refer to response to comment 567-27 regarding the project's purpose and objectives, the alternatives development process, and the range and scope of alternatives considered. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project, and Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-1	These comments are submitted on behalf of Save the California Delta Alliance. Thank you for the opportunity to submit comments and for considering our views.	This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-2	I. The DEIR Fails To Consider A Reasonable Range Of Alternatives. The stated fundamental purpose of the Project "is to restore and protect the reliability of SWP water deliveries . . . ." (DEIR, p. 2-2.) There are many more cost effective and reliable ways to achieve that purpose than building a $15,000,000,000 - $25,000,000,000 tunnel under the Delta. Yet the only alternatives studied are a tunnel under the Delta. As demonstrated below [see comments [comments 6, 10, 14-20], there are other more cost effective ways to achieve that basic	The EIR includes a reasonable range of project alternatives. Recirculation is not required. The Department of Water Resources followed CEQA requirements when identifying alternatives to be considered for evaluation in the EIR. As described in Common Response 3, Alternatives Development and Description, CEQA requires lead agencies to develop project objectives to inform the identification of the project and a reasonable range of potentially feasible alternatives. CEQA requires an EIR to include a reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen

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	purpose that also have multiple benefits and less environmental impact. The DEIR should be revised and recirculated with consideration of several non-tunnel alternatives.	one or more of the significant effects of the project. Common Response 3 provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. Please refer to Common Response 3 for a discussion regarding non-tunnel alternatives and how they would not meet the most basic project objectives. In addition, Appendix 3A, Identification of Water Conveyance Alternatives, of the EIR includes consideration of a wide variety of alternatives including alternatives without new water conveyance and explains why certain alternatives were eliminated from further review.
597-3	The DEIR's basic assumption is that the points of diversion must be moved upstream to: 1) avoid pumping restrictions due to the presence of endangered fish and to avoid fish mortality at the current location; 2) avoid salt water intrusion expected with sea level rise that will inhibit the ability to export water from the current point of diversion; and 3) avoid salt water intrusion that might occur due to a seismic collapse of Delta levees. However, there is no reason to believe that moving the intake locations upstream will make the intakes any less deadly to endangered and threatened fish species, and reverse Old and Middle River Flows that the Project purports to address will just become a reverse flow problem at different locations. Likewise, the new intake location will create its own set of new fish mortality problems, including diverting salmon into the central Delta. (NMFS Progress Assessment on the BDCP [Attachment 1]. [see ATT 1]) All salmon that spawn in the Delta system must pass the new intake locations. The USFWS has in the past issued "red flag comments" that the new intakes might lead to the extirpation of salmon. (Id.) The "state of the	With respect to the issue of reverse flows that the commenter suggests could occur, these potential impacts are analyzed in Chapter 12, Fish and Aquatic Resources, and the combination of operational criteria and hydrodynamic mitigation (Mitigation Measure CMP, specifically CMP-25: Tidal Habitat Restoration to Mitigate North Delta Hydrodynamic Effects on Chinook Salmon Juveniles) is concluded to result in less-than-significant impacts. With respect to the commenter's suggestion that the fish screens are only a concept, this is incorrect. Information cited in Chapter 12, in particular in Impacts AQUA-2 and AQUA-6, indicates the types of screen proposed are effective at minimizing risk to species. With respect to previous U.S. Fish and Wildlife Service comments cited in the comment, these comments were made in reference to the Bay Delta Conservation Plan, which used different screening technology than proposed for the Delta Conveyance Project. The comment suggests that physical modeling is required to validate the fish screen design and mathematical modeling is inadequate for this purpose. However, the attachment cited in the comment does not pertain to fish screens and instead discusses hydraulic structures used to control the flow of water in hydropower developments; regardless, information in the attachment indicates modeling was able to perform well except with rapidly varying flow, which would not be the case at the proposed north Delta intakes. As described in Impact AQUA-2, computational modeling would be undertaken during design of the intakes,

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	art fish screens" theorized to avoid destruction of salmon, threadfin shad, and other species are only a concept. They have not been tested. Since all of the alternatives depend on these fish screens performing in ways that no other fish screen has yet performed, none of the alternatives can be considered viable until the fish screen design is validated through physical model testing. Mathematical modeling is inadequate to validate the fish screens. (See, e.g., Numerical and Physical Modeling of Hydraulic Structures, McGill University [Attachment 2] [see ATT 2].) A number of hydraulic labs test hydraulic structure concepts and could test the unproven fish screen concept. (https://usbr.gov/tsc/tscorganization/services/8560services.html) (Utah State University: https://uwrl.usu.edu/hydraulics/modeling) (Colorado State University: https://hydraulicslab.engr.colostate.edu/hydraulic-modelstudies/)	and field measurements/baffle adjustments would be done during commissioning/operations; both would demonstrate compliance with velocity criteria.
597-4	Moving the intakes upstream to address salt water intrusion abandons the Delta to salt water. However a basic purpose of the SWP is to repel salinity from the Delta, as provided by the Burns-Porter Act and other laws authorizing the State Water Project and authorizing its expansion and operation. The legally required salinity repelling function of the SWP is discussed in more detail below [see comments 7, 12]. Where, as here, all of the alternatives considered are unlawful and/or contrary to the underlying purpose of the larger public works being modified, the DEIR of necessity does not consider a reasonable range of alternatives.	The analysis contained in the EIR is not consistent with the assertion by the commenter that placing the intakes in the north Delta would deprive the Delta of freshwater. Please refer to Chapter 2, Purpose and Project Objectives, regarding the purpose of the project. Please refer to Chapter 3, Description of the Proposed Project and Alternatives, regarding the operational criteria, real-time operational decision making and adaptive management, which seek to avoid impacts on water quality. As described in Chapter 3, section titled Integration of the North Delta Intakes with South Delta Facilities, the north Delta intakes would operate in conjunction with the existing south Delta intakes, not replace them or “move them upstream” as seemingly implied by the comment. Chapter 3 further explains that in winter and spring when the project would be operated to

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	Water supply is an incidental benefit arising from the need to impound and store water upstream in order to have it available for release into the Delta ecosystem at times of lower flow when it is needed to repel salinity. That is why the points of diversion were placed at the extreme southern end of the Delta in the first place: SWP project designers understood that impounded water must flow all the way through the Delta to achieve its salinity repelling purpose before it could be diverted to agricultural and municipal use. The father of the SWP, former Governor Edmund G. Brown ("Pat Brown") justified the expense of building the SWP based on the need to save the Delta from salt water intrusion. Reporting on Brown's campaign for passage of Proposition One (the Burns-Porter Act) the San Francisco Chronicle said of Brown that his water plan "is to build works to control salt water intrusion into the Delta to save farmlands from becoming an alkali wasteland." (S.F. Chron., Delta Called The Tap for State Water, Jan. 23, 1959, p.6 [Attachment 3] [ATT 3].) In light of the above facts, depriving the Delta of its source of fresh water by diverting the Sacramento River upstream of the Delta is an "unreasonable method of diversion of water" expressly prohibited by the California Constitution. (Cal. Const, Article X, section 2.) As Pat Brown understood, the fresh water nature of the Delta was a treasure to be preserved, not destroyed, by the SWP. As Brown put it, "the Delta is a gift from nature... [a]bove the Delta we have both a supply of water and the sites to store it. Within the delta, we have the natural point of convergence. When we wish to export water to an area of need lying to the south, the delta can serve as the pool, if you please, as the tap from which the water can flow."	capture excess flows in the system, the SWP would still first prioritize diversions from the south Delta facilities, with the proposed north Delta intakes then used to capture additional excess flows the south Delta intakes would not be able to capture. In addition, as explained in Chapter 3 and contrary to the commenter's assertion that the project would "abandon the Delta to salt water", operation of the proposed north Delta diversions and existing south Delta facilities would also provide additional operational flexibility to help the SWP meet State Water Board D-1641 salinity requirements at the western Delta stations on both the Sacramento and San Joaquin Rivers. Please refer to Common Response 3, Alternatives Development and Description, for further explanation regarding how the project would be operated to shift diversions from the south Delta to the north Delta (during the summer and fall) or divert water in the north Delta during excess flow conditions (during the winter and spring) while meeting all existing or future regulatory requirements. Please refer to Chapter 9, Water Quality, for a discussion of the project impacts related to salinity (and salinity-related constituents). Impacts WQ-3, WQ-4, and WQ-5 evaluate effects on bromide, chloride, and electrical conductivity, respectively, resulting from facility operations and maintenance. The analysis in Chapter 9 of the EIR concluded that Impacts WQ-3, WQ-4, and WQ-5 are less than significant. Please refer to Common Response 3 regarding the development of the reasonable range of feasible alternatives evaluated in the EIR.

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	(S.F. Chron., Delta Called The Tap for State Water, Jan. 23, 1959, p.6.) (Attachment 3 [ATT 3].)	
597-5	When considering beneficial uses of water, such as municipal and agricultural uses, DWR must consider competing beneficial uses, including "the relative benefit to be derived from (1) all beneficial uses of the water concerned including, but not limited to, use for domestic, irrigation, municipal, industrial, preservation and enhancement of fish and wildlife, recreational," and other uses. (Wat. Code § 1243.5.) This must be part of the public trust analysis for the Delta Conveyance Project, but no consideration is given by the DEIR to the relative benefit of increased instream flows vs drastically reducing flows through the Delta as alternative means of increasing water system reliability, addressing sea level rise, and addressing potential earthquake threats. An EIR that does not study alternatives required by the Public Trust Doctrine, necessarily fails to consider a reasonable range of alternatives within the meaning of CEQA.	The EIR fully addresses impacts and benefits to Delta beneficial uses in Chapters 5-32, including changes in surface water flows, water supply, and terrestrial and aquatic impacts on the Delta environment. Chapter 33, Other Required CEQA Analyses, provides as discussion of the Public Trust Doctrine and how the EIR addresses public trust issues. Alternatives that would require a reduction of water supply exports and increases in in-stream flows were determined to not meet the project purpose and objectives focused on improving SWP water supply reliability and were not considered further in the EIR. Please also refer to Common Response 3, Alternatives Development and Description, regarding comment-suggested facility operations alternatives, including suggestions for reducing exports/increasing in-stream flows. Please see Common Response 17, Public Trust, regarding the EIR's discussion of public trust resources.
597-6	No alternative was studied that would address salt water intrusion by strengthening the levies and operating the SWP in the way it was designed to be operated: to repel salt water from the Delta. Reducing exports by phasing out deliveries south of the Tehachapi Mountains (discussed in more detail below) [see comments 14-20] would provide more available water to devote to environmental flows and at the same time would make deliveries to central valley farmers more reliable. Studies show that the City of Los Angeles can wean itself entirely off of imported water at the latest by 2050, and probably earlier. (Mitka, et. Al. LA Sustainable Water Project: Los Angeles /City-Wide Overview (University of California, 2018) p. 28 [Attachment 4] [see ATT 4]; UCLA Newsroom, UCLA Study Presents L.A. With A Path To Independence From	The EIR includes a reasonable range of alternatives. Please refer to Common Response 3, Alternatives Development and Description, regarding alternatives involving levee repair and reducing exports. Levee improvement alternatives would not meet a majority of the basic project objectives. Alternatives to reduce exports would not meet most of the basic project objectives. Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Chapter 2, Purpose and Project Objectives, and Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental

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	Imported Water (February 28, 2018) [Attachment 5] [see ATT 5].) Los Angeles Mayor Eric Garcetti committed the City of Los Angeles to recycling 100% of its wastewater by 2035. (Water News Daily, February 25, 2019 [Attachment 6] [see ATT 6].) Phasing out export of Delta water to Southern California over the next 20 to 25 years is feasible. Met [Metropolitan Water District] is unfortunately not as forward thinking as its largest member agencies. Committing tens of billions of dollars to the Tunnel Project, that wouldn't go into operation for at least ten years, and probably twenty years or more, at the behest of Met is irrational.	laws. Please also refer to Common Response 1 regarding the adequacy of the project objectives for the purposes of CEQA. Please refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding DWR's levee management efforts in the Delta. Please also see response to comment 597-15 regarding the reasonable range of potentially feasible alternatives evaluated in the EIR.
597-7	As Appendix 5A-F shows, rising sea levels will require that more water be allowed to flow through the Delta in order [to] repel salinity in order to maintain the fresh water balance in the Delta. Currently, exported water flows through the Delta and performs its salinity repelling function before reaching the export pumps. What is needed, is to allow an enhanced salinity repelling function by providing more fresh water for instream flow. Diverting the Sacramento River upstream of the Delta, as the Project will do, performs the opposite function and allows less water to flow through the Delta. The magnitude of sea level rise is uncertain and precisely how much more water will need to be released for instream flow cannot be predicted with certainty. Predictions over longer time scales are difficult. More recent evidence suggests that sea level rise may not be as great as the assumptions used in Appendix 5A-F. (See Sweet, et. al., Global and Regional Sea Level Rise Scenarios for the United States (NOAA 2022) [Attachment 7] [ATT 7].) However, the best available science tells us that sea levels will rise and increasing fresh water releases through the Delta will be successful in repelling rising	Chapter 3, Description of the Proposed Project and Alternatives, table Delta Conveyance Project Preliminary Proposed Operations Criteria; table Delta Diversion Bypass Flow and Pulse Protection Requirements, and table Sub-Table A. North Delta Diversion Bypass Flow Criteria, describe the circumstances under which the project can divert water from the Sacramento River. In addition, the Chapter 3 figure titled Seasonal Diversions graphically depicts how the project would operate. The analysis contained in the EIR does not support the assertion by the comment that the use of the north Delta intakes would contribute to significant increases in salinity. As described in Chapter 3, in the section titled Integration of North Delta Intakes with South Delta Facilities, the project facilities would be operated to meet Bay-Delta Water Quality Control Plan salinity objectives for protection of fish and wildlife beneficial uses, as implemented through D-1641. As described in Common Response 3, Alternatives Development and Description, the proposed intakes would only be permitted to operate as prescribed by the federal and state environmental permitting processes. Common Response 3 also demonstrates that outflow would occur during project operations in different water year types. The project is not abandoning the Delta as claimed by the comment. The purpose and objective of the project is

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	salt water at increasing sea levels. In the medium term, up to 2050, a feasible amount of increased instream flow will be sufficient to repel salinity in the Delta. For the contiguous United States, the mean scenario predicts 0.4 meters (1.3 feet) rise at 2050. (Id. at p.14.) According to Appendix 5A-4, increased outflows of about 125,000 acre feet annually would be sufficient to repel salinity at a sea level rise of 1.8 feet. The most likely magnitude of sea level rise can be managed with feasible increases in Delta outflow, over the near and medium terms. DWR based design of the intakes on a scenario of a 10.2 foot rise in seal [sic] level at 2100. (Appendix 5A F-10.) While the mean scenario in the best scientific studies is 3.9 feet and the extreme high scenario is 7.2 feet at 2100. (Sweet, et. al. at 20 [Attachment 7].) The median scenario at 2100 can be managed with an increase in outflow of approximately 1,000,000 acre feet per year, substantially less if salinity levels are allowed to rise for brief periods each season. This is less than the contract amounts allocated to Southern California and less than the 1,095,000 acre feet that was exported to Southern California on average between 2012 and 2016. (Bulletin 132, Table B5-B.) There will be critically dry years when enough water will not be available to repel salinity entirely but that is not justification for abandoning the Delta.	described in Chapter 2, Purpose and Project Objectives, and the scope of the objectives, including sea level rise and extreme weather events, as well as water supply reliability, is further discussed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. Appendix 5A, Modeling Technical Appendix, Section F, Sea Level Rise and Delta Water Quality Modeling, documents the sea level rise study that investigated how Delta water quality could change under seven sea level rise scenarios. This study used a bracketing approach to confirm that the north Delta diversion intakes are not vulnerable to salinity intrusion in response to sea level rise, even though most of the western and central Delta are. It also concluded that added flow has two contrasting roles. It provides fresh flow downstream with flushing capability, while the input of buoyant water enhances dispersion, allowing salinity increases upstream. The study also acknowledges that uncertainties related to future regulatory requirements and compliance, coupled with the potentially contradictory assumptions explained above and resource challenges under extreme sea level rises, suggest that integrated statewide modeling efforts could be necessary in the future. Chapter 9, Water Quality, provides a complete analysis of the project impacts on Delta salinity. The water quality impact analysis concludes that there could be some increases in bromide (Impact WQ-3), chloride (Impact WQ-4), and EC (Impact WQ-5) at western and Delta locations in some months, but increases would not adversely affect beneficial uses, including water supply, and impacts on these constituents would be less than significant. The Chapter 15, Agricultural Resources, section titled Impacts of the Project Alternatives on Farmland Productivity, describes how the timing and magnitude of the increases in EC would not result in substantial effects to cropland that currently receive somewhat saline irrigation water.

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597-8	The conclusion presented in the DEIR, that the SWP diversion system should be re-tooled to put the intakes upstream and thereby eliminate the salt water repelling function of exported water, is not supported by the best available science.	The analysis contained in the EIR is not consistent with the assertion by the commenter that the best available science was not used. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding best available science. Refer also to the response to comment 597-4 regarding project purpose, operational criteria, real-time operational decision making and adaptive management, discussion of the project's impacts on salinity, and the avoidance of impacts on water quality. The comment is incorrect that the project will eliminate the saltwater repelling function of the SWP because the EIR demonstrates that the project would result in a less-than-significant impact on salinity.
597-9	In order to be lawful, the DEIR must be recirculated to include alternatives that do not include moving the point of diversion upstream and include increased instream flow. Eliminating export of Delta water south of the Tehachapi Mountains is the obvious source of additional water for instream flow. DWR's contracts with Met [Metropolitan Water District] and other Southern California users are no bar to the feasibility of alternatives that reduce exports. The law requires DWR to reconsider past allocations. Water rights are never vested; whether obtained indirectly by contract or directly by appropriative right. DWR's Public Trust obligation to fully evaluate reducing and eliminating deliveries south of the Tehachapi Mountains is triggered by consideration of the Delta Conveyance Project and is discussed in more detail below [see comments 14-20].	The assertion that the EIR is "not lawful" as it did not consider an alternative without a new diversion location is incorrect. Not adding a point of diversion upstream is covered under analysis of the No Project Alternative and Appendix 3A. Please refer to response to comment 597-2 and Common Response 3, Alternatives Development and Description, regarding the process for developing alternatives. Common Response 3 provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. Appendix 3A discusses why reducing exports alone would not meet the project purpose and the majority of the basic project objectives. Also refer to Chapter 2, Purpose and Project Objectives, regarding the project's purpose and objectives. Common Response 3 also explains that reducing exports would not meet most of the basic project objectives. Please refer to Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the

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		Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Please refer to EIR Chapter 33, Other CEQA-Required Analyses, section titled Public Trust Considerations, for a discussion of how the EIR sets forth sufficient analyses for allowing DWR, as lead agency, to consider the public trust doctrine. Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.
597-10	No commentor has a right to have their suggested alternative studied. However, Delta Alliance's Natural Systems Alternative, described in Delta Alliances' NOP comments dated April 17, 2020 ("Delta Alliance NOP Comments"), is one feasible increased instream flow alternative that could be studied in a recirculated DEIR. The Delta Alliance NOP Comments are attached hereto and incorporated herein in full as a comments on the DEIR and on the Project. (Attachment 8.) [see ATT 8]. Other increased instream flow alternatives could be devised by DWR and studied as well.	The comments submitted as part of Attachment 8 are responded to in responses to comments 597-34 through 597-58. DWR has fully considered suggestions for additional alternatives.
597-11	Alternatives in the forthcoming recirculated DEIR must implement the imperatives of the Delta Reform Act, including the mandates "to reduce reliance on the Delta in meeting California's future water supply needs" (Water Code section 85021) and "restore the Delta ecosystem, including its fisheries and wildlife, as the heart of a healthy estuary and wetland ecosystem." "(Water Code section 85020.) Each major project undertaken in the Delta must advance these objectives so far as it is feasible. Exports are the major driver of the Delta ecosystems precipitous decline. "[T]he condition of the Delta's watery ecosystem, as measured especially by the population of wild salmon and other native fishes, has gone critical. The list	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the CEQA requirements for recirculation of an EIR, none of which are met by the Delta Conveyance Project EIR. Please also refer to Common Response 1 regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Please see Appendix 3E, Delta Reform Act Considerations, for a discussion of the Delta Reform Act's coequal goals and how the practical effect of many of the proposed mitigation measures and environmental

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	of causes begins, but does not end, with all those water withdrawals, a kind of tax that leaves the system in a condition of chronic drought." (Delta Plan, p. ES- 2.) A $15,000,000,000 plus project to re-tool the SWP's delivery system, where exports are the major driver of the Delta ecosystems decline, must consider alternatives that fundamentally advance the goals of reducing exports and restoring the Delta ecosystem.	commitments cited in the EIR would protect Delta values. Please also see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the relationship of the Delta Conveyance Project with the 2009 Delta Reform Act including the coequal goals of providing a more reliable water supply and protect, restore, and enhance the Delta ecosystem. Please also refer to Common Response 3, Alternatives Development and Description, regarding the reasonable range of feasible alternatives considered in the EIR.
597-12	II. The Project Violates The Public Trust Doctrine And The Public Trust Doctrine Analysis Contained In The DEIR Is Inadequate. Although the DEIR's Public Trust analysis cites National Audubon Society v. Superior Court (1983) 33 Cal. 3d 419 ("Mono Lake") [Footnote 1: The date for the Mono Lake case provided by the DEIR citation, 1923, is incorrect. Mono Lake was decided in 1983], it fails to apprehend and consider the basic teaching of Mono Lake: that a public agency has the affirmative duty to reconsider water rights allocations when the factors in the Mono Lake Public Trust balancing test have changed. "The water law of California--which we conceive to be an integration including both the public trust doctrine and the board-administered appropriative water rights system--permits such a reconsideration: the values underlying that integration require it."" (Mono Lake, 33 Cal.3d at 426.) In "summary, the foregoing cases amply demonstrate the continuing power of the state as administrator of the public trust, a power which extends to the revocation of previously granted rights" (Mono Lake, 33 Cal.3d at 440), including water rights, because all water rights in California are "nonvested usufructuary rights." (Id. at 426.) This authority "bars [DWR] or any other party from claiming a vested right to divert waters	DWR as CEQA lead agency has gone to considerable lengths to design the project to avoid impacts as well as develop environmental commitments and mitigation measures intended to reduce otherwise significant environmental effects to less-than-significant levels on the following public trust resources: water quality, fish and aquatic resources, terrestrial biological resources, in-water recreational resources, and public lands. Feasible mitigation measures are proposed throughout the document to mitigate potentially significant impacts on these resources, resulting in protection of the public trust resources. Please refer to Chapter 33, Other CEQA-Required Analyses, specifically the section titled Public Trust Considerations. As described in that section, there is an affirmative duty to protect public trust uses (i.e., navigation, commerce, and fishing on navigable waters) whenever feasible. Please also see Common Response 17, Public Trust, regarding the DWR's evaluation of public trust resources.

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	once it becomes clear that such diversions harm the interests protected by the public trust." (Id.) "In exercising its sovereign power to allocate water resources in the public interest, the state is not confined by past allocation decisions which may be incorrect in light of current knowledge or inconsistent with current needs." (33 Cal.3d at 447.) "The state accordingly has the power to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust." (Id.) In "review of the authority and obligations of the state as administrator of the public trust, the dominant theme is the state's sovereign power and duty to exercise continued supervision over the trust." (Mono Lake, 33 Cal.3d at 437.) Therefore, "parties acquiring rights in trust property generally hold those rights subject to the trust, and can assert no vested right to use those rights in a manner harmful to the trust." (Id.) The "foregoing cases amply demonstrate the continuing power of the state as administrator of the public trust, a power which extends to the revocation of previously granted rights" including water rights, whether obtained by contract or appropriative water rights permits. (33 Cal.3d at 440.) The Mono Lake balancing test, to be applied by DWR to all considerations and reconsiderations involving the diversion of water is found at pages 446-447: As a matter of practical necessity the state may have to approve appropriations despite foreseeable harm to public trust uses. In so doing, however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust [citation] and to preserve, so far as consistent with	

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	the public interest, the uses protected by the trust. (Mono Lake, 33 Cal.3d 446-447.) The factors to be balanced are the value of one public trust use (supply of water to Southern California for municipal and agricultural uses) versus the harm to another public trust use (maintaining instream flow for the Delta). The deciding factor is the third consideration: the public interest. In 1966, the public interest favored construction of Edmonston and the expenditure of large amounts of electricity to pump water over the Tehachapi Mountains. Water supply was a public good and little, if anything, was known about global warming. Little was known about alternative sources of water now available to Southern California. There appeared to be few, if any, limits on electricity supply from abundant fossil fuel sources. Things have changed. Global warming is a threat and it is in the public interest to avert it. Alternative sources of water supply are readily available. Los Angeles policy makers and politicians are actively seeking to wean themselves from imported water. The state is embarked on an all out effort to achieve deep decarbonization and conserving every watt of electricity is crucial to the effort. The DEIR posits that we are well on the way to limitless renewables so wasting electricity is not a concern. This rosy scenario is without support. (See, e.g., Clack, et. Al., Evaluation of a Proposal for Reliable Low-Cost Grid Power With 100% Wind, Water, and Solar (2016) [Debunking cavalier claims for effortless deep decarbonization] Attachment 9) [see ATT 9]; Williams, et. Al., Pathways to Deep Decarbonization in the United States (Energy and Environmental Economics Inc. 2014	

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	[Graphically illustrative the complex and dauting path ahead to reach deep decarbonization] (Attachment 10) [see ATT 10]. The existential harm to the Delta ecosystem that is upon us was not known in 1966. These factors, that did not exist in 1966, now firmly tip the public interest balance in favor of ceasing exports over the Tehachapi Mountains. The trust must be protected "so far as feasible." (Mono Lake, 33 Cal.3d at 426.) It is now feasible to phase out exports of Delta water south of the Tehachapi Mountains. After the appropriate public trust analysis is conducted, DWR should file an application with State Water Resources Control Board seeking a change in its appropriative water rights permits that would eliminate all areas south of the Tehachapi Mountains as a permitted place of use. Met [Metropolitan Water District] and other south of Tehachapi Contractors will be provided due process at such hearings and they can have appropriate input into the timetable for phasing out their Delta supplies, including appropriate mitigations to them. Likewise, Central Valley Contractors will have the right to be heard on the benefit to them of eliminating the severe oversubscription of water rights that will allow more reliable supplies for Central Valley agriculture—an achievement of the underlying purpose of the Project. In the end, all SWP contractors will have a more reliable supply of water if south of Tehachapi exports are phased out. At this juncture, DWR is required to conduct a thorough public trust analysis applying the Mono Lake balancing test. The decision to build the Delta Conveyance Project is a decision to continue exporting water over the Tehachapi Mountains for	

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	generations to come. Met is the driving force behind the Project and will bear the brunt of responsibility to repay the bonds. Once the tunnel is built, there will be no practical way for the state to exercise its ongoing duty to reconsider public trust implications. The consideration of the Delta Conveyance Project is an inflection point that requires reconsideration of exporting Delta water south of the Tehachapi Mountains.	
597-13	III. The Project Violates The Burns Porter Act And Other Laws Authorizing The State Water Project And Its Expansion And Operation Because The Project Is Designed To Increase Intrusion Of Salt Water Into The Delta Instead Of Repelling Salt Water The SWP, like its sister the CVP, has several coequal purposes, including flood control, improvement of navigation, and river regulation. Among the essential purposes underlying the construction of both the SWP and the CVP ("the projects"), is the repelling of salt water from the Dela by maintaining a constant fresh water barrier: The major factor affecting water quality in the Delta is saltwater intrusion. Delta lands, situated at or below sea level, are constantly subject to ocean tidal action. Salt water entering from San Francisco Bay extends well into the Delta, and intrusion of the saline tidal waters is checked only by the natural barrier formed by fresh water flowing out from the Delta. But as fresh water was increasingly diverted from the Delta for agricultural, industrial and municipal development, salinity intrusion intensified, particularly during the dry summer months and in years of low precipitation and runoff into the	The Delta Conveyance Project would be part of overall SWP operations that must comply with Bay-Delta Water Quality Control Plan (WQCP) objectives for electrical conductivity (EC), which apply from April through mid-August, in accordance with State Water Resources Control Board (State Water Board) Water Right Decision 1641 (D-1641). Chapter 9, Water Quality, evaluates the different constituents of salinity, including bromide, electrical conductivity (EC) and chloride. As disclosed in Chapter 9, there could be some increases in bromide (Impact WQ-3), chloride (Impact WQ-4), and EC (Impact WQ-5) at western Delta locations in some months, but increases would not adversely affect Delta beneficial uses and impacts on these constituents would be less than significant. These impact analyses, along with the modeling results in the supporting Chapter 9 appendices, also show that during the summer months (i.e., June through August) the project would have little to no effect on salinity constituents. Please see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the relationship of the Delta Conveyance Project to compliance with federal and state antidegradation policies, protecting beneficial uses in the Delta, and the requirements of D-1641. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. By law, water quality objectives must be

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	river systems. One of the major purposes of the projects was containment of maximum salinity intrusion into the Delta. By storing waters during periods of heavy flow and releasing water during times of low flow, the freshwater barrier could be maintained at a constant level. (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 107.) The Project turns the SWP on its head, and converts it into a mechanism that will encourage and worsen salt water intrusion. The Project is unlawful because it is contrary to the purpose underlying its authorizing legislation. Likewise, the potential participation of the CVP in the Project is precluded by the salinity control purpose of the CVP: The purpose of the project is to store and conserve flood and waste waters of the Sacramento and San Joaquin Rivers and their tributaries so that the entire flow can be used for flood control, improvement of navigation, irrigation, the development of hydroelectric power, and the protection of the Delta lands at the junction of the two rivers against the injury from salt. (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 135–136, quoting Exec. Order (Sept. 10, 1935) p. 560 [Franklin D. Roosevelt ("FDR")].) The state Delta Conveyance Project would interfere with the CVP's ability to carry out its salinity repelling purpose and even if the Project were lawful under California Law, approval of the Project is forbidden by federal law preemption. DWR's argument that salinity levels in the Delta are set by the SWRCB and DWR will obey the SWRCB's mandates misses the point: even if there were no SWRCB salinity regulations at all,	protective of all designated beneficial uses. If the State Water Board adopts new Delta water quality objectives into the Bay-Delta WQCP and subsequently adopts a new water rights decision for the SWP implementing the modified Bay-Delta WQCP objectives, then DWR would operate the SWP in accordance with that new water rights decision.

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	the SWP's underlying purpose is to repel salinity from the Delta and its design and operation may not be altered to undermine that purpose. The operating criteria for the Project must include salinity protection for the Delta as good or better than D- 1641, expressly to remain in effect regardless of any changes to D-1641 by the SWRCB. Likewise, the operating criteria for the Project must include maintenance of X2 as good or better than current RPA requirements of federal BiOps, expressly to remain in effect regardless of any changes in federally mandated X2.	
597-14	IV. The DEIR Fails To Analyze Available Mitigation Measures For Significant Adverse Impacts From Electricity Consumption / Fails To Avoid Impacts. Wasteful use of energy is a significant adverse impact as a matter of law. According to the DEIR, the project will make the SWPs electricity deficit worse by 993 gigawatt hours annually compared to existing conditions. (DEIR Table 22-12.) The SWP already consumes 2819 more gigawatt hours annually than it generates. That deficit will grow with the Project to 3812 gigawatt hours annually. (DEIR Table 22-13.) The SWP runs at a deficit because of the Edmonston Pumping Plant, which pushes Delta water over the Tehachapi Mountains to Southern California. The Project adds a new pumping plant to supply Bethany Reservoir and increases consumption overall at pumping plants in the system. The CVP system, on the other hand, is a net supplier of electricity to the grid because it does not effect the gargantuan task of pumping billions of gallons of water over a mountain range. (DEIR Table 22-13.)	Chapter 22, Energy, did identify an increase in projected energy consumption for each of the project alternatives, however the chapter did not conclude that the construction or operation of Delta Conveyance Project would result in a significant adverse impact on energy resources. As identified in the section titled Thresholds of Significance, the CEQA analysis reflects the requirements indicated in CEQA Guidelines Appendix G. The Draft EIR evaluated and concluded that although the project would increase the use of electrical energy, this increase was not considered wasteful, inefficient, or unnecessary use of energy and would not conflict with any state/local plan goal, objective, or policy for renewable energy or energy efficiency. SWP's power portfolio currently consists of 65% renewable energy. SWP helps reduce solar curtailments by pumping during the day and displaces natural gas in the evening ramping hours; thus, it is an important "battery" for the state's electric system. With 65% of its load serviced by renewable sources, the SWP is already one of the cleanest utilities in the state. The SWP is required to have 100% of its load served by clean energy sources by 2035, 10 years ahead of any other utility in California. Additionally, by 2045 the CAISO market will be supplied with 100% renewable or zero-carbon resources, meaning any additional purchases by

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	From 2012 to 2016 SWP deliveries to Southern California averaged 1,095,000 acre feet per year. (Bulletin 132-17, table B5-B.) That is 1,488,105,000 tons of water pumped up 1926 feet every year. That is the most energy intensive way to supply water imaginable. Calculations of the embedded energy in an acre foot of water delivered to southern California range from over 5,000 kWh/acre foot (see Attachment 1 [see Attachment 1 of ATT 8], to Delta Alliances April 17, 2020, scoping comments) to over 4600 kWh/acre foot at the assumptions most favorable to DWR (see Embedded Energy in Water Studies Study 1: Statewide and Regional Water-Energy Relationships, GEI Consultants/Navigant Consulting, August 31, 2010, p. 61 [Attachment 11] [see ATT 11].) There are abundant available alternative sources of water at half or less the energy cost available to supply Southern California. Water reuse supplies water at about 1200 kWh/acre foot (including reverse osmosis filtration); Even ocean desalination can be accomplished at 4000 kWh/acre foot or less. (Attachment 8 [see ATT 8]; Attachment 11, p. 70. [see ATT 11])	the SWP on the open market would be from renewable/zero carbon resources.
597-15	Taking the reasonable step of replacing mile after mile of green turf landscaping in Southern California, much of which is never touched by human or animal, with drought tolerant landscaping would save at least hundreds of thousands of acre feet per year and perhaps more water than total Delta imports. (Attachment 8, p. 6.)[see ATT 8] As discussed above [see comments 6-12], replacing imported Delta water with other sources is feasible and Los Angeles policy makers and politicians are committed to doing so.	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Please refer to Common Response 4, No Project Alternative Description

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		and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including those actions identified by the comment. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. The California Water Resilience Portfolio includes numerous local and regional water management and conservation actions including modernized Delta conveyance to improve California water supply conditions. These actions are occurring concurrently, recognizing that multiple actions are needed, including new diversion and conveyance facilities in the Sacramento-San Joaquin Delta, to improve California's water supply resilience. Please see Common Response 5, Public Water Agencies Water Management Practices, for a description of existing efforts and future actions that would be undertaken by State Water Project users to ensure California's water resources are being used efficiently and sustainably.
597-16	If one were challenged to find a way to waste as much electricity as possible supplying water, pumping it from the Delta to Southern California would be it. The Delta Conveyance Project is an inflection point. If approved, it is a commitment to continue pumping a billion tons of water over a half-mile high mountain range for generations to come. As currently configured, SWP deliveries south of the Tehachapi Mountains are a "wasteful, uneconomic, inefficient, and unnecessary use of power" within the meaning of Public Resources Code section 25002. If the Project is approved, it will be an "irreversible commitment of energy" and "threat[] to the state's environmental quality." (Pub. Res. Code § 25002.) DWR has failed "to employ a range of measures to reduce wasteful, uneconomical, and unnecessary uses of energy" as	Chapter 22, Energy, provided an estimate of the increase in energy consumption for each of the project alternatives, however the chapter did not conclude that the construction or operation of Delta Conveyance Project would result in a significant adverse impact on energy resources and therefore no mitigation is required. As identified in the section titled Thresholds of Significance, the CEQA analysis reflects the requirements indicated in CEQA Guidelines Appendix G. The Draft EIR evaluated and concluded that the project would not result in the wasteful, inefficient, or unnecessary use of energy and would not conflict with any state/local plan goal, objective, or policy for renewable energy or energy efficiency. Please also see response to comment 597-4 for a description of SWP's renewable energy power portfolio.

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	state policy, codified in Public Resources Code section 25007, requires. It is "further the policy of the state and the intent of the Legislature to promote all feasible means of energy and water conservation and all feasible uses of alternative energy and water supply sources." (Pub. Res. Code § 25008.) To achieve these ends "it is necessary that California both protect environmental quality and site new powerplants to ensure electricity reliability, improve the environmental performance of the current electricity industry and reduce consumer costs." (Pub. Res. Code § 25009.) In order to comply with CEQA and with state energy policy, the DEIR must be recirculated to survey, analyze, and adopt feasible mitigation and avoidance measures to reduce or eliminate the waste of electricity.	
597-17	The Edmonston Pumping Plant consumes 3,093 gigawatt hours annually, making it the largest single point user of electricity in California, and perhaps the world. The SWP regenerates some electricity as the water makes its way down the other side from the top of the Tehachapi Mountains. But this amounts to only 932 gigawatt hours annually at existing conditions, or about 30% of what Edmonston consumes. (DEIR Table 22A-1.) An efficient design for regeneration on the way down should be able to recover closer to 90%. "Water batteries," or pumping water uphill to storage at times when there is surplus electricity in the grid, and then releasing it back down to generate electricity when the grid is stressed, are gaining significant attention and acceptance. Also known as "pumped storage" these projects are considered feasible where water is pumped uphill just to store it for later release to generate electricity. (See, e.g., Water Batteries could store	The commenter has suggested analysis of a project (Tehachapi Summit Reservoir) that is outside of the scope of the Delta Conveyance Project. Please see Common Response 3, Alternatives Development and Description, for a description of DWR's approach to alternatives screening. As described in Chapter 2, Purpose and Project Objectives, the basic objective of the Delta Conveyance Project is to restore and protect the reliability of SWP water deliveries. The Delta Conveyance Project helps meet this by constructing and operating new water supply facilities within the Delta. The Delta Conveyance Project is not proposing changes to storage operations or rules. The Delta Conveyance Project also does not preclude future changes to the state's water supply either through modifications of the operation of existing facilities or increasing water storage.

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	solar and wind power for when its needed, National Public Radio, October 14, 2022 [Attachment 12].) Here, DWR is already expending enormous amounts of energy to pump water to 3,000 feet in elevation, but is only using a small fraction of the potential to generate energy coming back down. Storing water at or near the summit of the Tehachapi Mountains would provide the ability to recapture much more of the energy used to pump the water uphill. It would provide water storage as well. The electric grid and the water system both suffer from the same critical need: more storage. A "Tehachapi Summit Reservoir," should be subject to a feasibility study. If feasible, it could be a way to remove Edmonston from the "wasteful, uneconomic, inefficient, and unnecessary use of power" category.	
597-18	Increasing energy storage is a critical need, vital to the effort to decarbonize California's grid. In particular, obtaining energy storage capable of "energy time shift" that is "mostly charge when renewable generation is excess and discharge when renewable generation is in scarcity" is the "greatest policy challenge going forward" to reach deep decarbonization. (Aydin, et. Al., Energy Storage Procurement Study (Draft), Lumen Energy Strategy, LLC, Prepared for the California Public Utilities Commission, October 24, 2022 [Attachment 13].)[see ATT 13] Stored hydro is a form of energy time shift storage. These kinds of double benefit projects make sense. Store water because water storage is needed and because stored water stores energy. Pump water uphill because it provides energy storage and provides water supply to the other side of the mountains. Two canyons near the summit that appear on Google Earth to be capable of storing a million acre feet or	Please see response to comment 597-17 storage operations.

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	more are candidates for further evaluation. (Attachment 14.)[see ATT 14]	
597-19	Although the ecological harm to the Delta and the oversubscription of available supplies inherent in south of Tehachapi contracts probably cannot be overcome, if Delta water were to continue being exported to Southern California, some measure to offset the energy consumption would have to be implemented. The Tehachapi Summit Reservoir would be one measure that should be surveyed in the RDEIR and analyzed so far as a feasibility analysis could take it.	Draft EIR Chapter 22, Energy, did identify an increase in projected energy consumption for each of the project alternatives, however the chapter did not conclude that the construction or operation of the Delta Conveyance Project would result in a significant adverse impact on energy resources and therefore no mitigation is required. Please also see response to comment 597-17, which addresses the Tehachapi Summit Reservoir raised in the comment.
597-20	A more immediate and certain available mitigation for energy consumption is a Pump Systems Energy Assessment, conducted according to ISO/ASME [American Society of Mechanical Engineers]14414:2015 by a certified Pump Systems Assessment Professional ("PSAP"). According [to] the attached letter report from mechanical engineer Alan Werner, energy savings of up to 20 % for the SWP's pump stations may be found by conducting a state of the art energy assessment. Since the SWP pumps consume 6744 GWH annually, that could be more than enough to offset the increased energy consumption of the Project. Even an energy savings of 5% through more efficient pumping would save over 200 GWH annually. That is more energy than is consumed by many California counties. (Attachment 15.) [see ATT 15] Hydraulic pump energy efficiency is receiving increasing attention as an area of great potential energy savings by the United States Department of Energy and the pump industry. (Attachment 16.) [see ATT 16] Replacing some of the pumps may be called for. The Banks Pumping Station, and many other SWP pumping stations still use pumps designed and built in the 1960s. (Attachment 17.)	Please see response to comment 597-14 for a description of the projected energy consumption for each of the project alternatives, the impact of which was determined to be less than significant. Because the project's projected energy consumption would be less than significant, no mitigation is required. The recommendations proposed in the comment for an energy assessment of the entire SWP falls outside the scope of the Delta Conveyance Project EIR. The Delta Conveyance Project's pumping plants would include variable speed drives and would be sized to operate within specified preferred operating range. The pump sizing and variable speed drives would allow for on-site control to operate pumps within the high range of pump wire-to-water efficiencies, as described in the Basis for Pumping Energy Use Estimates technical memorandum (Delta Conveyance Design and Construction Authority 2023).

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	[see ATT 17] As Mr. Werner points out in the attached letter report, there have been significant advances in pump design since then (Attachment 16.)[see ATT 16]. DWR in fact replaced the pumps at Edmonston in 2009 with pumps of new design and manufacturing technology, achieving a significant energy savings: The pump inlet and impellers were designed using computational fluid dynamics and finite element analysis to maximize efficiency. Computer controlled machining technology was used to form the hydraulic profile of the impeller blades and the pump's water passages for improved efficiency. (Pumps & Systems, Success Story of the Year 2009 finalists: Hitachi, 12/17/2011.) (Attachment 18.) [see ATT 18] Given the age of the SWP pumps, life cycle cost savings with new efficient pumps, changes in SWP pumping duty since the original pumps were designed, and further changes in duty called for by the Project, the large investment in new pumps may be cost effective over the long life cycle of these pumps. CEQA requires consideration and analysis of available feasible mitigation measures. A Pump Systems Assessment to determine available energy savings should be conducted prior to recirculating the DEIR, and all feasible pump system mitigations should be adopted as mitigations in the Delta Conveyance Project RDEIR to offset the significant adverse environmental impacts from increased energy consumption.	

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597-21	V. DEIR Fails To Identify Significant Impacts On Microcystis And Fails To Identify And Analyze Mitigation Measures For Microcystis. Microcystis analysis was conducted using DSM2 to model hydraulic residence time. DSM2 is not adequate to model hydraulic residence time for Microcystis because it is too coarse to pick up changes in localized water bodies. A fine-grain analysis is required. For example, the bays of Discovery Bay suffer from Microcystis and small changes in flow can have a significant impact on hydraulic residence time, temperature, water column stratification, and irradiance (clarity). The DEIR concluded that Microcystis season begins no earlier than June and that changes in residence time in June would not be significant because Microcystis blooms in June are only minimal. However, evidence shows that Microcystis blooms begin earlier than June in Discovery Bay and that blooms in June are substantial. (Attachment 19.)[ATT 19] The bays of Discovery Bay represent possibly the most concentrated human contact with Delta water anywhere in the Delta. The configuration of the bays of Discovery Bay requires a fine grain analysis. Other locations in the Delta also require a fine grain analysis. Water bodies with hydrology that won't be picked up by DSM2 and have intensive human contact include: The Coves at Bethel Island; the bay at Korth's Pirates Lair; St Francis Yacht Club anchorage at Tinsley Island; the Bedrooms Anchorage on Potato Slough, the Delta Marina at Rio Vista, Stockton Yacht Harbor; Snug Harbor back channel on Steamboat Slough, and Minor Slough. Of particular concern due to proximity to intakes and subject to reverse flows due to	DSM2 is the best available tool for modeling Delta hydrodynamics, as further described in Common Response 10, Surface Water Quality and Groundwater Resources; therefore, it is the best available tool to evaluate potential changes in residence time because of project operations. June through November is the focus of the CHABs analysis in Chapter 9, Water Quality, Impact WQ-14 because these are the months when problem-level blooms typically occur, as discussed in Chapter 9, Impact WQ-14 and Appendix 9E, Cyanobacteria Harmful Algal Blooms. The conclusion that changes in residence time in June would not result in significant effects on CHABs is based on the analysis presented in Impact WQ-14.

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	intakes, are the Meadows Anchorage and Snodgrass Slough. All of these areas and any others of similar characteristics should be subject to fine grain analysis for the months April through November for hydraulic residence time, temperature, water column stratification, and irradiance, in the forthcoming Delta Conveyance RDEIR. These same factors also implicate impacts for Egeria densa and other invasive weeds.	
597-22	VI. Chapters On Community Benefits and Community Engagement Are Not Accurate. The Chapters on Community Benefits and Community Engagement contain misleading, and incomplete information and should be revised to accurately reflect the situation. (See Comments of Mario Moreno; Jan McCleery; letters from Karen Mann: Attachment 20).[see ATT 20]	Appendix 3G, Community Benefits Program Framework and Chapter 35, Public Involvement, are accurate with regard to the outreach and engagement efforts conducted. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives and Common Response 3, Alternatives Development and Description, regarding the alternatives screening process and the range and scope of alternatives considered. Please also refer to the Efforts to Minimize Delta Community Effects technical memoranda in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022a, 2022b) regarding the engineering and design modifications made to reduce Delta community effects. Please note that Attachment 20 [see ATT 20] is also a copy of letter 535. Those comments are addressed in these responses to the commenter's letter and in the responses to letter 535.
597-23	VII. Recreation and Boating and Marinas. The DEIR fails to disclose, analyze, and mitigate significant adverse impacts on recreation and boating. For all alternatives, impacts of intake construction and operation remain the same as for California WaterFix. For central alignment alternatives, impacts on recreation, boating, and Marinas remain	The EIR presents and analyzes recreation and boating activities in detail in Chapter 16, Recreation. See the section titled Description of Existing Conditions in the Study Area for description of recreation resources, including boating and marinas. Impacts to those resources are analyzed and discussed in Chapter 16 in Impacts REC-1 and REC-2. There were no significant adverse impacts identified for recreation and boating or to marinas. Therefore, there are no specific recreation mitigation measures.

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	substantially the same as for California WaterFix. Delta Alliance's comments on California WaterFix recreation, boating, and Marina impacts are incorporated for the Delta Conveyance Project as if set forth in full here.	Effects to the recreational experience from project construction and operation, including boating, are analyzed in detail in Chapter 17, Socioeconomics, ECON-5. The EIR has been developed to be compliant with CEQA. The criteria used for determining the significance of an impact on recreation are based on the CEQA Guidelines Appendix G (Environmental Checklist Form). The comment references comments submitted to DWR during the California WaterFix EIR process but that were not attached as part of the comment letter submitted during the Delta Conveyance Project Draft EIR comment period. DWR is not required to respond to comments on projects that are no longer being pursued, and DWR is not responsible for trying to ascertain which portions of comments submitted on the California WaterFix EIR are still applicable to the Delta Conveyance Project. The response provided addresses the comments raised regarding recreation, boating, and marinas as it applies to the Delta Conveyance Project.
597-24	VIII. Environmental Justice. The chapter on environmental justice should be revised to reflect honest engagement with environmental justice communities, particularly Hood, after that engagement takes place. To date there has been no concern on the part of Project planners for substantive changes to the Project on environmental justice grounds and environmental [j]ustice outreach efforts have been, at best, an exercise in box checking rather than substantial engagement. (See Comments of Mario Moreno; Jan McCleery; letters from Karen Mann; Attachment 20.) [see ATT 20]	Chapter 29, Environmental Justice, evaluates environmental impacts on environmental justice communities, including low-income and minority populations in the community of Hood. As part of the environmental review process, DWR developed and executed a robust outreach program to help ensure participation of disadvantaged communities and environmental justice organizations in the scoping process. In addition to these outreach strategies, DWR conducted the Your Delta, Your Voice environmental justice community survey from September 20 to December 18, 2020, to gather insights on the priorities, preferences, activities, and concerns of Delta-area environmental justice communities. The Your Delta, Your Voice survey is summarized in the Chapter 29 section titled Environmental Justice Survey Findings, and the full report is provided as Appendix 29A, Environmental Justice Community Survey Report. Survey results included concerns raised by respondents for the community of Hood, particularly regarding construction impacts. Findings from the survey

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		illuminated a sample of the priorities and concerns of a subset of the Delta environmental justice community that helped inform the environmental justice analysis. In addition, DWR designed the project to reduce numerous impacts on Delta communities, as described in the Efforts to Minimize Delta Community Effects technical memoranda in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022a, 2022b). Please refer to Common Response 3, Alternatives Development and Description, regarding the reasonable range of feasible alternatives evaluated in the EIR. DWR reviewed and evaluated alternative intake locations as part of the alternatives screening process (Appendix 3A, Identification of Water Conveyance Alternatives). The DCA carefully assessed—using technical and scientific criteria—all possible siting locations along a 26-mile stretch of the Sacramento River. Evaluation of these potential sites included consideration of existing land uses, cultural and historic resources, river depth and geometry, and suitable geotechnical conditions. The sites must also allow for water flows that facilitate better fish passage and appropriate diversion operations. Re-examination of the riverbed and other physical settings of the Sacramento River between the Town of Freeport and the confluence with Sutter Slough affirmed the selection of the candidate sites based solely on technical and scientific siting criteria. It should also be noted that the potential intake site closest to the community of Hood was screened out for further consideration. For more information about the intake location screening process and criteria, please refer to the Intake Site Identification and Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022c). Please note that Attachment 20 [see ATT 20] is also a copy of letter 535. Those comments are addressed in these responses to the commenter's letter and in the responses to letter 535.

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597-25	Thank you for considering these comments. We look forward to the RDEIR as the next step in the process.	This information is general closing text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-26	Chapters 5 and 6 of the handbook Pump System Optimization are attached as Attachment 21 [see ATT 21]	It is unclear how the commenter intended to include this attachment in support of their comments, as it was not cited within the body of this letter. Please refer to response to comment 597-20 regarding Pump Systems Energy Assessments.
597-27	[Attachment 1: NMFS Progress Assessment and Remaining Issues Regarding the Administrative Draft BDCP Document]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-28	[Attachment 2: Numerical and Physical Modeling of Hydraulic Structures from McGill University]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in the responses to the commenter's letter (see in particular response to comment 597-3).
597-29	[Attachment 3: Newspaper article from the San Francisco Chronicle titled "Delta Called the Tap for State Water," dated January 23, 1959."]	This comment does not raise a significant environmental issue associated with the Delta Conveyance Project and/or is beyond the scope of the EIR.
597-30	[Attachment 4: Report titled "LA Sustainable Water Project: Los Angeles City-Wide Overview", dated February 2018]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in the responses to the commenter's letter (see in particular response to comment 597-6).
597-31	[Attachment 5: UCLA news article titled "UCLA study presents L.A. with a path to independence from imported water", dated Feburary 28, 2018.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in the responses to the commenter's letter (see in particular response to comment 597-6).
597-32	[Attachment 6: California Water News Daily article titled "Los Angelese Mayor Garcetti Announces Goal to Recycle 100 Percent of City's Wastewate by 2035", dated February 25, 2019]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in the responses to the commenter's letter (see in particular response to comment 597-6).

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597-33	[Attachment 7: National Oceanic and Atmospheric Administration report by Sweet et al. titled "Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines", dated February 2022]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in the responses to the commenter's letter.
597-34	[Attachment 8: Save the California Delta Alliance NOP comments from April 17, 2020.]	This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-35	[ATT 8:] These comments are submitted on behalf of Save the California Delta Alliance. Thank you for the opportunity to submit these comments and for considering our views. In short, we believe that the Notice of Preparation ("NOP") should be redrafted because it is not consistent with the Delta Reform Act, the Delta Plan, the Public Trust Doctrine, California Constitution Article X, section 2, the California Environmental Quality Act ("CEQA"), the legal uses to which the State Water Project ("SWP") may be put, environmental justice principles codified in Government Code section 65040.12, requirements to consider and avoid climate change impacts of new infrastructure and to consider mitigation of climate impacts through alternative uses of natural infrastructure codified in Public Resources Code section 71154, and other applicable laws.	As defined by Section 15375 of the State CEQA Guidelines, the notice of preparation (NOP) is a brief notice provided by the lead agency to other agencies and the public identifying that the lead agency plans to prepare an EIR for a project. The purpose of the notice of preparation is to solicit guidance from other agencies as to the scope and content of the EIR. The notice of preparation produced by DWR was fully compliant with CEQA. Furthermore, it is not the purpose of the notice to contain impact analyses related to climate change nor to mitigate impacts. The EIR contains multiple evaluations related to climate change, as described in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues; Common Response 6, Climate Resilience and Adaptation; Common Response 9, Hydrologic Modeling and Approach; and Chapter 30, Climate Change. The EIR also contains Chapter 29, Environmental Justice, which appropriately evaluates environmental justice effects, and Chapter 33, Other CEQA-Required Analyses, which discusses DWR's compliance with the public trust doctrine. Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.
597-36	[ATT 8:] A revised NOP should provide for a Natural Systems Alternative that reduces exports in order to provide more water for	A revised NOP is not required to include a natural systems alternative. Please refer to Common Response 3, Alternatives Development and Description, regarding why natural systems, reducing or eliminating exports, levee repairs, and other alternatives would not meet project

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	through-Delta seaward flow and includes strengthening and restoring Delta levees through the use of setback levees and channel margin habitat. This approach will achieve the project objectives of mitigating salt water intrusion from climate-induced sea level rise and mitigating the risk of salt water intrusion from catastrophic levee failure. It will also achieve the project objectives of providing operational flexibility to improve aquatic conditions in the Delta and of protecting the ability of the SWP and CVP [Footnote 1: The federal government has not indicated that it will participate in the tunnel project and it appears that the Trump administration is focused on maximizing CVP supplies with existing infrastructure] to reliably deliver water. It is superior to a tunnel with regard to project objectives and without the significant adverse environmental impacts of a tunnel. The Natural Systems Alternative should therefore be the preferred alternative pursuant to CEQA.	objectives or are not potentially feasible alternatives to the proposed project. The Delta Conveyance Project is one part of a diverse portfolio of strategies that would assist in meeting California's water management needs and would not preclude other measures that may be taken by DWR or other entities.
597-37	[ATT 8:] The major premises of the project are to mitigate sea level rise due to climate change and to mitigate the risk of levee failure due to earthquake risk. The rationale is that by moving the point of diversion upstream, the incremental effects of salt water intrusion into the south and central Delta due to continuing sea level rise, and the potential for abrupt salt water intrusion due to levee failure, will be mitigated because the point of diversion will be far enough upstream to remain in fresh water--despite significant incursion of salt water into the Delta (whether over time due to climate change or suddenly due to catastrophic levee failure). This approach abandons the south, west, and central Delta to	As the commenter notes, and as described in Chapter 2, Purpose and Project Objectives, the basic purpose of the Delta Conveyance Project is to restore and protect the reliability of SWP water deliveries and to provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations. The Delta Conveyance Project helps meet this by constructing and operating new water supply facilities within the Delta. Chapter 9, Water Quality, provides evidence to support the impact determinations regarding potential impacts on water quality as a result of project operations. Impacts WQ-3 (bromide), WQ-4 (chloride), and WQ-5 (electrical conductivity) address salinity impacts using modeled changes in these water quality parameters. Impacts WQ-4 (chloride) and WQ-5 (electrical conductivity) address changes in levels relative to existing conditions as well as compliance with Bay-Delta Water Quality Control Plan

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	salt water intrusion and seeks to protect export water supplies by moving the point of diversion to the far north out of reach of salt water intrusion. However, it ignores the fact that a fundamental purpose of the SWP is to prevent salt water intrusion into the Delta. "One of the major purposes of the projects was containment of maximum salinity intrusion into the Delta. By storing waters during periods of heavy flow and releasing water during times of low flow, the freshwater barrier could be maintained at a constant level." (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 107.) With sea level rise as an omnipresent increased source of salt water intrusion, diverting Sacramento River inflow upstream of the south and central Delta, and reducing through-Delta freshwater flows, is antithetical to the purpose of the SWP.	objectives for the protection of municipal and industrial uses, agricultural uses, and fish and wildlife uses, and show that project operations would not cause more frequent exceedance of chloride and electrical conductivity objectives, thereby supporting the fundamental purpose of the SWP. Please also refer to response to comment 597-13 regarding potential salinity impacts.
597-38	[ATT 8:] It is also antithetical to the dire need for more seaward flow in order to reverse the catastrophic decline of the Delta ecosystem now in progress. In the words of former United States Environmental Protection Agency Regional Administrator and current Secretary of the California Environmental Protection Agency, Jared Blumenfeld, "existing freshwater diversions and significantly diminished seaward flows have played a significant role in precluding the recovery of Bay Delta ecosystem processes and declining fish populations." (August 26, 2014, Letter from USEPA Administrator Jared Blumenfeld to National Marine Fisheries Service Administrator Will Stelle, p.2.) The only logical, and legally sound, approach to the problem is to increase the capacity for through-Delta freshwater flows in	Please see responses to comments 597-4 and 597-11 regarding freshwater exports, salinity, the Delta ecosystem, the project objectives, and the reasonable range of feasible alternatives considered in the EIR. In addition, please see Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources, for a discussion of Delta ecosystem-related effects.

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	order to enhance the ability to push back anticipated increased salt water intrusion and at the same time address the ongoing ecosystem crisis. Reducing water withdrawals for export is the optimal response to provide more water for critically needed in-stream seaward flow. "[T]he condition of the Delta's watery ecosystem, as measured especially by the population of wild salmon and other native fishes, has gone critical. The list of causes begins, but does not end, with all those water withdrawals, a kind of tax that leaves the system in a condition of chronic drought." (Delta Plan, p. ES-2.)	
597-39	[ATT 8:] Strengthening the levees and at the same time utilizing setback levees with channel margin habitat is the proper response to salt water intrusion from seismic risk. Although set in a heavily altered system, restored setback levees implement the requirements of Public Resources Code section 71154 for "using natural ecological systems or processes to reduce vulnerability to climate change related hazards, or other related climate change effects, while increasing the long-term adaptive capacity of coastal and inland areas by perpetuating or restoring ecosystem services." (Pub. Res. Code § 71154, subd. ©(3).) Specifically, "levees that are combined with restored natural systems…provide a wide array of benefits to people and wildlife."(Id.) A wholly artificial tunnel, on the other hand, is not consistent with state policy on climate change adaptation as codified section 71154.	Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including those actions identified by the comment. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. However, the Delta Conveyance Project would not preclude levee improvement projects. Please refer to Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California as well as past and current planning efforts for developing improved Delta conveyance infrastructure. The discussion in Chapter 1 demonstrates that Delta Conveyance Project is consistent with State policy regarding water supply resilience and climate adaptation.
597-40	[ATT 8:] A single-tunnel project also itself contributes significantly to carbon emissions over the very long run and thereby hampers California's ability to rapidly reduce carbon emissions. It does	Please refer to response to comment 597-14 regarding the Delta Conveyance Project energy consumption.

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	this because it locks in export of Delta water to the Metropolitan Water District ("MWD" or "Met"), the major advocate and financial guarantor of the single tunnel project, and to other south of Tehachapi contractors.[Footnote 2: There are 13 south of Tehachapi SWP contractors, including Met. In recent years, Met has accounted for about 80% of Delta exports to Southern California and the other 12 contractor combined, about 20%. Several of the other south of Tehachapi contractors have received only de minimis amounts of SWP water in recent years. (Bulletin 132-17, Appendix B, Table B-5B.)] The State Water Project ("SWP") is one of the worst carbon offenders in the nation, if not the world. The SWP consumes approximately 8,000 gigawatt-hours of electricity each year. SWP dams and hydropower plants generate about half that much, leaving 4,000 gigawatt-hours of net energy consumption, much of which is generated by gas-fired power plants.3 (https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan, last visited April 12, 2020.)[Footnote 3: DWR proclaims itself a climate leader and a leader in carbon emission transparency. However, no evidence could be found to support those claims. For example, how much of the 4,000 gigawatts of non-hydropower consumption is attributable to carbon based generation and how much to renewables could not be found despite several hours searching DWR websites and bulletins. From the incomplete information found, DWR's GHG emissions have been increasing since 2014. (https://water.ca.gov/Programs/State-Water-Project/Clean-Energy, last visited April 15, 2020.) If better information exists in an accessible format, Delta Alliance would appreciate DWR	

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	pointing the way in its response to this comment.] DWR has taken some steps in recent years to address the most egregious climate offensive aspects of the SWP, including elimination of a filthy coal fired power plant in Nevada as a source of purchased SWP power and bringing online the Pearblossom Solar Facility. However, the fact remains that the SWP wastes enormous amounts of energy because delivering Delta water to Southern California is by far the most energy intensive source of water while much more energy efficient means of supplying southern California are readily available. The SWP is the largest consumer of electricity in California and the Edmonston Pumping Plant (which pushes Delta water up and over the Tehachapi Mountains to Met's service area) consumes 40% of SWP electricity usage. (https://www.watereducation.org/aquapedia/ad-edmonston-pumping-plant, last visited April 15, 2020.) Edmonston is the largest single-point user of electricity in California. (David Carle, Introduction to Water in California (2d ed. 2016) p. 103.) Additional electricity consumption occurs at the pumping plants prior to Edmonston in the foothills, and at distribution pumping plants south of the Tehachapis. Delta water delivered south of the Tehachapis consumes over 5,000 kWh/acre foot. By comparison, water re-use (including Reverse Osmosis filtration) supplies water at about 1,200 kWh/acre foot and many conservation and water efficiency measures are available that use only nominal amounts of energy. Even the more energy intensive alternatives come in at less than 2,000 kWh/acre per acre foot. (See, e.g., Professor Bob Wilkinson, August 23, 2007, presentation to the State	

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	Water Resources Control Board, Water, Energy, and Climate, p.9 [Attachment 1].)[see Attachment 1 of ATT 8] It simply does not make sense in the face of a climate crisis to found California's water future on pushing trillions of tons of water up and over a half-mile high mountain range. Current pumping burns massive amounts of fossil fuel. The clean energy we may acquire in the future must be applied to more rapidly replacing carbon based power in essential sectors of the economy. It would be hard to imagine a waste of energy more profligate than continued export of Delta water to Southern California.	
597-41	[ATT 8:] It is time to implement a planned retreat from exporting Delta water south of the Tehachapi Mountains, thereby achieving the Delta Reform Act's imperative to "reduce reliance on the Delta in meeting California's future water supply needs" by completely replacing Met's Delta water supply with "improved regional supplies, conservation, and water use efficiency," (Wat. Code § 85021), and carefully reassessing the delivery of Delta water to other south of Tehachapi contractors.	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Please refer to Common Response 3, Alternatives Development and Description, regarding how alternatives that would reduce or eliminate exports would not achieve the majority of the basic project objectives.
597-42	[ATT 8:] I. Public Resources Code Section 71154 Requires That DWR Fully Consider A Non-tunnel Natural Systems Alternative. Public Resources Code section 71154 is binding on all state	Please refer to response to comment 597-36 regarding why natural systems and other non-tunnel alternatives would not meet project objectives or are not potentially feasible alternatives to the proposed project. Please refer to EIR Chapter 30, Climate Change, regarding the adaptation and resilience benefits of the project.

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	agencies and requires that when state agencies are taking steps to adapt to climate change, in particular the development of new infrastructure, they develop an alternative that utilizes existing natural features rather than constructing large new artificial infrastructure: When developing infrastructure to address [climate] adaptation, where feasible, a project alternative should be developed that utilizes existing natural features and ecosystem processes or the restoration of natural features and ecosystem processes to meet the project's goals. For purposes of this subdivision, "natural infrastructure" means using natural ecological systems or processes to reduce vulnerability to climate change related hazards, or other related climate change effects, while increasing the long-term adaptive capacity of coastal and inland areas by perpetuating or restoring ecosystem services … [including] levees that are combined with restored natural systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife. (Pub. Res. Code §§ 71154, subd. ©(2) & (3).) State agencies adapting to climate change are also required, to the maximum extent practicable, to "Protect[] and enhance habitat, species strongholds, and wildlife corridors that are critical to the preservation of species that are at risk from the consequences of climate change." (Pub. Res. Code § 71154, subd. (g).) The single-tunnel project is proffered to "address anticipated rising sea levels and other reasonably foreseeable	Public Resources Code (PRC) 71154(c)(2) provides that "[w]hen developing infrastructure to address adaptation, where feasible, a project alternative should be developed that uses existing natural features and ecosystem processes or the restoration of natural features and ecosystem processes to meet the project's goals." Consistent with this objective, the EIR, in the alternatives screening process described in Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, considered whether numerous natural systems approaches would meet most of the basic project objectives when considered alone. These kinds of alternatives were found to not meet the climate change, seismicity and water supply resiliency objectives because they would rely on current SWP facilities. Furthermore, all of the project alternatives analyzed in the EIR would utilize existing natural features and ecosystem processes because all of the project alternatives are dual conveyance alternatives that rely on conveying SWP water through Delta channels to the existing SWP export facilities. The proposed project is also consistent with PRC 71154(g). Aquatic (see Chapter 12, Fish and Aquatic Resources) and terrestrial (see Chapter 13, Terrestrial Biological Resources) impacts were found to be less than significant or less than significant with mitigation applied. Furthermore, the EIR includes the Compensatory Mitigation Plan (CMP) (Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources), which includes restoration as part of various mitigation measures that will be implemented to protect and enhance habitat and special status species.

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	consequences of climate change and extreme weather events," (NOP, p.2), and is therefore subject to section 71154. Read together with CEQA, section 71154 requires that DWR develop a non-tunnel Natural Systems Alternative for full study in any Environmental Impact Report ("EIR") culminating from the NOP in order to comply with CEQA's mandate to study a reasonable range of alternatives. We believe that the Natural Systems Alternative should be the preferred project.	
597-43	[ATT 8:] II. The Natural Systems Alternative. A. First, strengthen Delta Levees and use setback levees and channel margin habitat at critical and feasible locations. Setback levees with channel margin habitat are feasible and cost-effective, at a cost of $14 million or less per mile. (See, e.g., West Sacramento Setback Levee Project, https://www.cityofwestsacramento.org/government/departments/communitydevelopment/flood-protection/levee-projects-overview, last visited April 14, 2020.). Where set back levees are not practical, strengthening conventional levees would be much less costly per mile. For example, 4.7 miles of levee on Bouldin Island were recently strengthened at a cost of $3 million per mile. (http://www.mwdh2o.com/DocSvcsPubs/Delta_Islands/, last visited April 15, 2020.) An adequate portion the Delta's approximately 1100 miles of levees could be replaced or strengthened for far less than the $15 billion plus or minus price tag of a single tunnel.	As described in Common Response 3, Alternatives Development and Description, alternatives including upgrades to Delta levees would not meet most of the basic project objectives. Please refer to response to comment 597-36 regarding why natural systems, levee repairs, and other non-tunnel alternatives would not meet project objectives or are not potentially feasible alternatives to the proposed project. Please refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding DWR's levee management efforts in the Delta.

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	A tunnel mitigates levee failure risk only as to exported water supplies but ignores catastrophic damage to the Delta ecosystem and loss of fresh water supply to in-Delta users, including Delta communities and farms. Restored levees protect export supplies, in-Delta users, and not only protect the Delta ecosystem but greatly enhance it. Restored levees, using setback levees in locations where feasible, are consistent with Delta Plan Recommendations: Setting levees back from the riverbank can expand flood conveyance capacity and reduce flood risk while providing ecosystem restoration and recreational opportunities. Setback levees also allow opportunities for construction of an improved levee foundation and section using modern design and construction practices, thereby reducing risk of failure. Integrating fish-and-wildlife-friendly channel margin treatments into levee improvements can also help. (Delta Plan, Chapter 7, as amended March 2020, p.21.)	
597-44	[ATT 8:] The Natural Systems Alternative might also consider flooding of selected Delta Islands. Intentionally breeching levees at some locations can mitigate the threat of future unplanned catastrophic levee failure in an earthquake and also create additional freshwater storage and habitat, serving the twin goals of ecosystem restoration and water system reliability. Although requiring careful study and planning before acceptance of any future project, freshwater storage on flooded Delta Islands has been found feasible and cost-	Please refer to response to comment 597-36 regarding why natural systems and other non-tunnel alternatives would not meet project objectives or are not potentially feasible alternatives to the proposed project. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives development process and the reasonable range of potentially feasible alternatives considered.

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	effective in the past (http://www.semitropic.com/pdfs/Delta%20Welands%20project%20EIR/209629-deltawetlands-feir-20110817%20permissions.pdf, last visited April 15, 2020).	
597-45	[ATT 8:] B. Second, implement a planned retreat from exporting of Delta water south of the Tehachapi Mountains. Replacing Delta water exported to the Metropolitan Water District with new local and regional supplies is feasible and cost-effective. Credible estimates of the cost of water delivered from the late WaterFix tunnel project ranged from about $2400 to well over $5,000 per acre foot. The Natural Resources Defense Council estimated the cost at $2361 per acre foot. (Doug Obegi, MWD's WaterFix Cost Assessment is Inaccurate and Inadequate, August 11, 2017 [Attachment 2][see attachment 2 of ATT 8].) The Final WaterFix EIR estimated the yield of WaterFix at 172,000 acre feet per year. Dr. Rodney T. Smith, of Stratecon, Inc., produced a table analyzing WaterFix cost per acre foot at a range of yields. For 200,000 acre feet per year, the cost would be between $4795 and $8463 per acre foot, depending on the assumed risk premium. For 100,000 acre feet per year, the cost would be over $9500 per acre foot. (Rodney T Smith, Impact of the Annual Yield of the Twin Tunnels Project on the Cost of Project Water, August 30, 2016 [Attachment 3][see Attachment 3 of ATT 8].) There is no reason to believe that a new single tunnel project could deliver water more cheaply than the former WaterFix projections.	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please refer to Chapter 2, Purpose and Project Objectives, regarding the purpose of the project. Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. DWR and potential project beneficiaries will conduct their own economic analyses before committing funding to the project. While not all SWP users have expressed interest in participating in the project, many SWP users continue to see the need for the Delta Conveyance Project and the benefits that it would provide (see Chapter 2). Please see Common Response 7, Implementation Considerations, regarding project costs, project funding, and financial feasibility of the proposed project. The results of the California WaterFix economic study are specific to that project and should not be applied to the Delta Conveyance Project.

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	From 2012 to 2016, an average of about 1,095,000 acre feet per year of SWP water was delivered to Southern California. (Bulletin 132-17, table B5-B.) Even assuming that half of Delta deliveries would be foreclosed without a tunnel (a scenario not supported by evidence, but apparently part of contract amendment negotiations) the cost per acre foot for a tunnel project would be over $2,000 per acre foot utilizing Dr. Smith's former WaterFix projections.	
597-46	[ATT 8:] Any credible cost estimate for single tunnel delivered water will make numerous other sources of supply more cost-effective than a tunnel. Costs for replacing exported Delta water with local and regional supplies in Southern California would be less per acre-foot than supplies delivered through a single tunnel project. DWR estimated the mid-point cost for municipal recycled water as $800 per acre foot. (DWR, California Water Plan 2013.) The WateReuse Research Foundation has estimated the following costs for water supply alternatives per acre foot: direct potable re-use $820–$2000; indirect potable re-use $820–$2000; seawater desalination $1500– $2300; water use efficiency and conservation $495–980. (WaterReuse Research Foundation, The Opportunities and Economics of Direct Potable Reuse (2014).) The Metropolitan Water District of Southern California's 2015 Urban Water Management Plan identifies specific potential recycling projects with a yield of 680,000 acre feet per year but none of those projects are included in Met's projected supply	Please refer to response to comment 597-41 regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. While an economic cost benefit analysis is not a requirement of CEQA, the EIR addresses environmental costs and, generally, the benefits of the project and alternatives. Consideration of findings of fact prepared for the decision-making process will also address the feasibility of project alternatives and mitigation measures. In addition, because the proposed project and alternatives would result in some significant and unavoidable impacts, a statement of overriding considerations would be required should DWR decide to approve the project. The statement of overriding considerations would include discussion of the balance of applicable economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the project against its unavoidable environmental risks and would be considered by the decisionmaker when determining whether to approve the project.

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	figures. Met consistently overstates demand and understates local and regional supply potential in order to justify continued demand on Delta Water. (See, e.g., Issue Brief, Mismatched, Natural Resources Defense Council 2017.)	The comments on costs of recycled water and MWD's management plan are not comments on the content or analysis of the Delta Conveyance Project EIR. Please refer to Common Response 7, Implementation Considerations, regarding project costs and financing.
597-47	[ATT 8:] The untapped potential for stormwater capture in Southern California is at least 300,000 acre-feet per year. (See The Untapped Potential of California's Water Supply: Efficiency, Reuse, and Stormwater Capture, NRDC and Pacific Institute 2014; see also Testimony of Doug Obegi before the State Water Resources Control Board for unpublished county-by county data, available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/nrdc.html.) The Southern California Water Coalition conducted a survey of stormwater capture projects in Southern California and found that the median cost per acre foot was $1070. In the aggregate, for all the projects surveyed, there was a cost of $132 million for a yield of 13,400 acre feet annually, or a cost of $328 per acre foot over a 30 year period. (SCWC Stormwater Task Force, 2018 WhitePaper Update, available at http://www.socalwater.org/wp-content	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including those actions identified by the comment. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. Please refer to response to comment 597-41 regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project. Alternatives focused on stormwater capture in southern California would not meet most of the basic project objectives. Please refer to response to comment 597-15 regarding the California Water Resilience Portfolio and its relationship to the Delta Conveyance Project.
597-48	[ATT 8:] Met [Metropolitan Water District] has placed the cost of water savings through turf replacement at $600 per acre foot. Http://mwdh2o.com/PDF_Newsroom/Turf_Removal_Program.pdf, last visited April 16, 2020.) Turf replacement, encouraging homeowners and businesses to replace thirsty green lawns with water-efficient landscaping, is perhaps one of the biggest untapped, cost-effective, sources of new water in Southern	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including water demand management actions that might be taken by various State Water Contractors, such as turf replacement programs. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding

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	California. No data were found to indicate the total potential for turf replacement at this writing. Extrapolating from Met's figures, approximately one acre foot per year is saved for every 7400 square feet of turf replaced. With a service area of 5200 square miles, populated with millions upon millions of detached single family homes, and businesses, sprouting lush lawns, the potential must be at least in the hundreds of thousands of acre feet per year. If they do not exist, accurate figures for this potential should be developed. If DWR has information as to the potential for turf replacement, Delta Alliance would appreciate the provision of those figures in response to these comments.	reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. Please refer to response to comment 597-41 regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project. Alternatives focused on conservation measures like turf replacement in southern California would not meet most of the basic project objectives. Please refer to response to comment 597-15 regarding the California Water Resilience Portfolio and its relationship to the Delta Conveyance Project.
597-49	[ATT 8:] Substantial new water is also available in Southern California through better indoor water conservation rebate and incentive programs, which are also currently limited in budget and application. Estimates range from 1.4 to 2.4 million acre-feet of new water annually from untapped urban water conservation measures, including indoor measures outdoor measures in the South Coast Hydrologic Region, most of which is comprised of Met's[Metropolitan Water District] service area. (See The Untapped Potential of California's Water Supply: Efficiency, Reuse, and Stormwater Capture, NRDC and Pacific Institute 2014; see also Testimony of Doug Obegi before the State Water Resources Control Board for unpublished county-by-county data, available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/nrdc.html.)	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including those actions identified by the comment. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. Indoor water conservation efforts are important but were eliminated from considerations as alternatives to the proposed project because water conservation alone would not improve Delta water supply reliability, reduce climate change and seismic SWP water supply risks in the Delta and would not improve SWP operational flexibility. The Delta Conveyance Project, however, would not preclude local conservation rebate and incentive programs and is included in the State's Water Supply Resiliency Portfolio. Please refer also to response to comment 597-15 regarding the California Water Resilience Portfolio and its relationship to the Delta Conveyance Project.

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597-50	[ATT 8:] Desalination technology is improving, and with advances in brine management, provides an additional, essentially unlimited, source of regional supply.	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, including desalination projects identified by the comment. Please see Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives, regarding reasonably foreseeable actions identified by the comment and their inability to meet most of the basic objectives of the Delta Conveyance Project. Desalination was eliminated from consideration as an alternative to the proposed project because this kind of alternative would not directly improve water supply reliability, climate change or seismic resiliency of the SWP Delta facilities. The Delta Conveyance Project, however, would not preclude future desalination projects by DWR or local entities.
597-51	[ATT 8:] From 2012 through 2016, Met [Metropolitan Water District] received an average of about 830,000 acre feet of SWP supplies per year. (Bulletin 132-17, table B-5B.) There can be little doubt that it is feasible to replace Met's SWP supplies with local and regional supplies that are cost effective, without the environmental damage to the Delta, and that are not wildly energy intensive as is pushing trillions of tons of water over a mountain range.	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Please see responses to comments 597-2 and 597-47 through 597-50 regarding the range of alternatives considered. Improving local water supplies is provided for in the State's Water Supply Resiliency Portfolio and numerous entities including MWD are pursuing local sources of water supply, including water and wastewater re-use projects. These types of actions were eliminated as alternatives to the proposed project because they would not improve water supply reliability, climate change and seismic resiliency of SWP Delta facilities and would not improve SWP operational flexibility, all state project objectives.
597-52	[ATT 8:] III. The Public Trust Doctrine Requires DWR To Consider Phasing Out Exports South Of The Tehachapi Mountains.	Please refer to response to comment 597-12 regarding public trust resources. The commenter is correct that, in approving the WaterFix project, DWR prepared findings regarding the public trust doctrine. As DWR has not yet considered certification of this EIR or approval of the proposed project, DWR has not yet prepared findings regarding the public trust doctrine. Should DWR exercise its discretion to approve the proposed

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	DWR has an affirmative duty to perform a public trust analysis of any tunnel project, which involves considerations beyond those required by CEQA. (See, e.g. California WaterFix Findings of Fact and Statement of Overriding Considerations, Part IV, Findings Regarding the Public Trust Doctrine.) Even absent a new project, tunnel or otherwise, DWR has an ongoing duty of supervision to consider public trust principles in managing water resources. DWR's water rights, in particular as to place of use in Southern California, are not vested. DWR must consider changes in the allocation of water resources when new information makes a renewed public trust analysis appropriate: The public trust doctrine and the appropriative water rights system are parts of an integrated system of water law. The public trust doctrine serves the function in that integrated system of preserving the continuing sovereign power of the state to protect public trust uses, a power which precludes anyone from acquiring a vested right to harm the public trust, and imposes a continuing duty on the state to take such uses into account in allocating water resources. (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, 452.) In particular, past allocation decisions may need to be revised in light of new information: Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water. In exercising its sovereign	project or one of its alternatives, DWR intends to prepare findings regarding the public trust doctrine. Such findings would take into consideration the whole record before DWR, including this EIR as well as all other relevant information in the administrative record. Please refer to Chapter 3, Description of the Proposed Project and Alternatives, regarding operational criteria for the project, volume limitations of diversions, and integration of the project with the existing south Delta facilities to ensure that adequate flows in conformance with Delta diversion outflow requirements established under D-1641 are maintained. Please also refer to Chapter 12, Fish and Aquatic Resources, which assesses effects on fish species and concludes that with proposed mitigation, potentially significant impacts would be less than significant.

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	power to allocate water resources in the public interest, the state is not confined by past allocation decisions which may be incorrect in light of current knowledge or inconsistent with current needs. (National Audubon, 33 Cal.3d at 447.) Contract provisions designating delivery to Southern California SWP contractors and DWR's water rights permits designating place of use in Southern California must give way to public trust considerations where a public trust analysis demonstrates that protection of public trust resources is feasible and reducing or eliminating diversions is in the public interest. The "state must bear in mind its duty as trustee to consider the effect of the taking on the public trust, and to preserve, so far as consistent with the public interest, the uses protected by the trust." (National Audubon, 33 Cal.3d at 446-447, citations omitted.) "The state accordingly has the power to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust. The case for reconsidering a particular decision, however, is even stronger when that decision failed to weigh and consider public trust uses." (National Audubon, 33 Cal.3d at 447.) Here, there is no doubt that ongoing diversions of Delta water to supply Southern California significantly harm public trust resources in the Delta, including driving several fish species to the brink of extinction. The Delta ecosystem is in crisis. There are multiple stressors but it is beyond dispute that lack of freshwater flow through the Delta, caused by excessive	

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	exports, is the master stressor that needs to be addressed before ecosystem recovery will be possible. (See, e.g., August 26, 2014, Letter from USEPA Administrator Jared Blumenfeld to National Marine Fisheries Service Administrator Will Stelle, p.2; Delta Plan, p. ES-2; State Water Resources Control Board, Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem, p. 2 ["The best available science suggests that current flows are insufficient to protect public trust resources"]; p.5 ["Recent Delta flows are insufficient to support native Delta fishes...Flow modification is one of the immediate actions available" to address ecosystem decline].)	
597-53	[ATT 8:] But the need to protect public trust resources in the Delta must be balanced against the consumptive needs of Southern California. "As a matter of practical necessity the state may have to approve appropriations despite foreseeable harm to public trust uses." (National Audubon, 33 Cal.3d at 446.) However, the public interest balance has changed significantly in recent years due to three factors: 1) Increasing awareness as to the availability of feasible, cost effective, alternative supplies that do not harm public trust resources; 2) The awareness of climate change and the energy / GHG impacts of exporting water over the Tehachapi Mountains; and 3) The dramatic worsening of Delta ecosystem decline. At one time in history, perhaps when the Edmonston Pumping Plant went into operation in 1972, a public interest balancing may have favored continued exports. The Delta ecosystem was not yet in catastrophic decline, technology for alternative sources of water was not yet developed, and the climate impacts of enormously energy intensive pumping were not	Please refer to response to comment 597-12 regarding public trust resources. Regarding the phasing out of exports to the Metropolitan Water District, please refer to the Executive Summary and Chapter 3, Description of the Proposed Project and Alternatives, which discuss the purpose, project objectives, and scope of the project. As described in this chapter, public water suppliers in different regions of the State of California would participate in the Delta Conveyance Project. Please refer to Common Response 3, Alternatives Development and Description, regarding comment suggested facility operations (e.g., reducing exports).

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	understood. The societal good of supplying water might have outweighed impacts on the Delta ecosystem—so far as those impacts were understood. However, we know today that the public interest counterbalance of supplying water to Southern California is obliterated by the climate impacts of pumping that water over the Tehachapi Mountains, especially in light of far more energy efficient and cost-effective sources of water. There is no longer any public good to weigh against the need to reduce harm to the Delta ecosystem as the benefit to society of exported water is canceled out by the climate impacts of export pumping. Any public trust analysis culminating from the NOP should fully consider phasing out exports to Met [Metropolitan Water District].	
597-54	[ATT 8:] IV. Locating Intakes At Former WaterFix Locations, And A Through-Delta Tunnel Route Violate The Delta Reform Act, Are Inconsistent With The Delta Plan, Violate California Constitution Article X, Section 2, And Offend Principles Of Environmental Justice. The NOP continues to limit intake location to one of three former WaterFix intake sites. We know from conclusive evidence developed in the former WaterFix proceedings that the massive concentrated construction impacts associated with intake siting in this location place enormous and unreasonable stress on the nearby Delta legacycommunities, including Hood, Clarksburg, and Locke. The massive size of the intake(s) at this location is an	This comment was submitted on the Bay Delta Conservation Plan/California WaterFix project. Thus, the comment does not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. Please refer to Common Response 3, Alternatives Development and Description, regarding consistency with the Delta Reform Act and the Delta Plan. Also see EIR Appendix 3E, Delta Reform Act Considerations, for how the Delta Conveyance Project will be consistent with Delta Plan requirements. DWR will fully comply with applicable portions of the Delta Reform Act, will continue to monitor the Delta Plan litigation and future Delta Plan amendments, and, if DWR approves the proposed project or a

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	unreasonable method of diversion. California Constitution, Article X, section 2, expressly prohibits any "unreasonable method of diversion of water." The NOP violates this provision of our state constitution. Delta Plan Policy DP P2 (23 CCR 5011) requires that DWR "Respect Local Land Use When Siting Water or Flood Facilities or Restoration Habitats." Extensive evidence developed during the State Water Resources Control Board and Delta Stewardship Council Proceedings for the former WaterFix shows that it is not feasible to site intakes in these locations consistent with Policy DP P2.	project alternative, will further consider consistency prior to filing a certification of consistency with the Delta Plan. Potential intake sites proposed under WaterFix were re-evaluated for the Delta Conveyance Project; see the Intake Site Identification and Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022c) and Appendix 3A, Identification of Water Conveyance Alternatives. In addition, Chapter 3, Chapter 3, Description of the Proposed Project and Alternatives, and Chapter 20, Transportation, describe road modifications and use restrictions to avoid or reduce construction impacts on local roads and communities. The town of Locke is outside the project footprint and would not be affected by Delta Conveyance Project intake construction or operation. Common Response 3, Alternatives Development and Description, provides further explanation about the intake location process and efforts to avoid impacts on the Town of Hood. The comment's assertion that the project violates California Constitution Article X, section 2 is not supported by the information and analyses in the Delta Conveyance Project EIR or supporting Engineering Project Report. Substantial engineering and environmental analyses have been prepared regarding siting of intakes and the potential for construction-related impacts on Delta land use. When significant impacts are disclosed, the EIR presents mitigation measures to reduce impacts, to the extent possible, to less-than-significant levels. Longer-term impacts on Delta land uses have been greatly reduced by facility engineering designed to avoid permanent impacts on Delta land uses and environmental justice communities, including siting most of the conveyance facilities, power, SCADA lines underground. Because some of the impacts of the Delta Conveyance Project would be considered significant and unavoidable, even with mitigation measures, DWR would prepare a statement of overriding

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		considerations, as required by CEQA to disclose and consider the social, economic and other reasons the project should be approved with significant and unavoidable impacts. DWR is following and complying with state legislation, executive orders, and policies that instruct state agencies to consider impacts of their actions on environmental justice communities. Please refer to EIR Chapter 29, Environmental Justice, for the analysis of environmental justice.
597-55	[ATT 8:] Hood is a largely low income and minority community that would bear the brunt of intake impacts, including increased air pollution from diesel exhaust associated with construction activities. Locating intakes as shown in the NOP is not consistent with environmental justice principles expressed in Government Code section 65040.12.	Please refer to Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR. Alternatives, including those with alternate intake locations, were identified and screened through a two-level filtering process to determine if the alternative could (1) meet the project purpose and most objectives and (2) avoid or lessen environmental impacts compared to the proposed project. Details on how the intake sites were considered and screened out are available in the Intake Site Identification and Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022c), cited in the EIR's Appendix 3A, Identification of Water Conveyance Alternatives. The EIR adequately discloses the project's potential environmental impacts on air quality and environmental justice communities. Please see the air quality analysis in Chapter 23, Air Quality and Greenhouse Gases, which concludes that significant air quality impacts would result from construction of the proposed project and its alternatives and Chapter 29, Environmental Justice, which analyzes air quality impacts from construction of the project and its alternatives on environmental justice communities. The environmental justice analysis was conducted per Public Resources Code Sections 71110–71118 and Government Code Section 65040.12 (see the Chapter 29 section titled Introduction) and concludes that, even with mitigation implemented, significant air quality effects from construction of the project and its alternatives (Impacts AQ-5 (all project alternatives) and

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		AQ-6 (Alternatives 2a and 4a)) could occur in areas with meaningfully greater minority and low-income populations and therefore represent a disproportionately high and adverse effect on environmental justice (section titled Project Alternatives, Air Quality and Greenhouse Gases).
597-56	[ATT 8:] DWR continues to push for intake siting near these legacy communities not because of any physical advantage to locating intakes here but because it believes it retains an antiquated water right for a point of diversion. Siting an intake here would, on DWR's belief, require only a petition for a change in the point of diversion and would not initiate a new water right. However, this is not a legitimate justification for placing intakes in an unreasonable manner. Intake location should be considered based on minimal impact to Delta communities and locations not included in the current NOP need to be open for consideration.	Please refer to Common Response 3, Alternatives Development and Description, regarding water rights, contracts, and use of water. Furthermore, Chapter 3, Description of the Proposed Project and Alternatives, identifies that the Delta Conveyance Project is not proposing to increase the total quantity of water permitted for diversion under existing DWR water rights. The change in the point of diversion applies to the diversion point of the water, not the quantity of water determined by the water right. See also Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the State Water Resources Control Board's authority to approve DWR's petition to change the point of diversion, a decision process separate from the CEQA process and DWR's decision-making. As described in the Intake Site Identification and Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022c) and below, DWR considered various intake locations based on engineering and operational requirements as well as community impacts. Please refer to the EIR Appendix 3A, Identification of Water Conveyance Alternatives, which considered potential intake locations throughout the Delta. Intake locations were previously intensively analyzed for the BDCP/California WaterFix Project and re-evaluated for the analysis of the Delta Conveyance Project. For the Delta Conveyance Project, DWR also assessed alternative intake locations upstream and downstream, and found that these alternate locations did not meet the project objectives or did not have the potential to lessen potential significant environmental effects, which are the screening criteria for whether alternatives should

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		move forward for further evaluation in the EIR. For information within the north Delta, see the Intake Site Identification and Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022c). Candidate sites were evaluated and ranked against a set of siting criteria that included, among others, • property impacts • built environment impacts • proximity to existing development • environmental and habitat disruption • roads and traffic impacts Proximity to existing development included consideration of the town of Hood, number of structures and residences within the permanent footprint, and potential impacts from construction traffic and new roads and road improvements. Please refer to Common Response 3, Alternatives Development and Description, for an explanation of the intake siting process, including efforts to avoid effects on the town of Hood.
597-57	[ATT 8:] Finally, it has been conclusively proven through extensive evidence introduced in the former WaterFix proceedings that a tunnel route through the Delta is not feasible. Impacts on Delta recreation and navigation of a through-Delta route are unacceptable. It is a waste of time and money to continue to pursue a through-Delta tunnel route as shown on the NOP. Attachment 4 [see ATT 4 of ATT 8] hereto is a slide show presented to the Delta Stewardship Council during the former WaterFix proceedings summarizing some of the evidence showing that the intakes cannot be located as shown on the NOP and that a through-Delta tunnel route is not an option.	This comment was submitted on the Bay Delta Conservation Plan/California WaterFix project. Thus, the comment does not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. The Delta Conveyance Project is not the same project as the previously proposed California WaterFix Project. The Delta Conveyance Project is located in a different area of the Delta and has different impacts on recreation and navigation than the concerns mentioned in this comment. Please refer to Common Response 13, Recreation and Recreational

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		Opportunities, and Chapter 16, Recreation, regarding recreational impacts of the tunnel alternatives. Refer to Chapter 20, Transportation, regarding impacts on marine navigation. Please also refer to response to comment 597-56 regarding the intake siting analysis.
597-58	[ATT 8:] V. Conclusion. The NOP should be redrafted to provide for a Natural Systems Alternative that includes phasing out exports of Delta water to the Metropolitan Water District, strengthened levees, and increased through Delta seaward flow to manage salinity intrusion and recover the Delta ecosystem. Intake locations at the sites of former WaterFix intakes and any through-Delta tunnel route should be eliminated from consideration now.	Please refer to response to comment 597-36 regarding why natural systems and other non-tunnel alternatives would not meet project objectives or are not potentially feasible alternatives to the proposed project. Please also refer to previous responses to comments in letter 597 (including 597-47 through 597-50) for responses to the alternatives suggested in this summary comment. Please also refer to Common Response 3, Alternatives Development and Description, regarding the process for selecting intake locations.
597-59	[ATT 8:] Attachment 1 of Attachment 8: Professor Robert Wilkinson, August 23, 2007, PowerPoint presentation to the State Water Resources Control Board and California Department of Water Resources titled "Water, Energy, and Climate",	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-60	[ATT 8:] Attachment 2 of Attachment 8: Blog post by Doug Obegi, dated August 11, 2017, regarding the Metropolitan Water District of Southern California's white paper on funding for the California WaterFix Project.	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. This comment does not raise a significant environmental issue related to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-61	[ATT 8:] Attachment 3 of Attachment 8: Memorandum from Rodney T Smith to Jeffrey Michael titled "Impact of the Annual Yield of	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. This comment does not raise a significant environmental issue related to the proposed project or address

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	the Twin Tunnels Project on the Cost of Project Water", dated August 30, 2016]	the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
597-62	[ATT 4 of ATT 8: PowerPoint presentation from the Save the Delta Alliance to the Delta Stewardship Council during proceedings for the California WaterFix.]	This comment was submitted on the Bay Delta Conservation Plan/California WaterFix Project. Therefore, the comment does not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. Please refer to response to comment 597- 56 regarding the intake siting analysis and response to comment 597-57 regarding recreation and marine transportation.
597-63	[Attachment 9: Collaborative article from PNAS (Proceedings of the National Academy of Sciences) titled "Evaluation of a proposal for reliable low-cost grid power with 100% wind, water, and solar", dated June 27, 2017.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-64	[Attachment 10: Report by Energy and Environmental Economics, Inc. (E3), in collaboration with Lawrence Berkeley National Laboratory (LBNL) and Pacific Northwest National Laboratory (PNNL) titled "Pathways to Deep Decarbonization in the United States", dated November 2014.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-65	[Attachment 11: Report by GEI Consultants/Navigant Consulting titled "Embedded Energy in Water Studies Study 1: Statewide and Regional Water-Energy Relationships", dated August 31, 2010.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-66	[Attachment 12: NPR article discussing the use of "water batteries" that can store electricity by pumping water uphill.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.

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597-67	[Attachment 13: Lumen Energy Strategy Energy Procurement Study]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-68	[Attachment 14: Aerial imagery of the canyons southeast of the Edmunston pumping station.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. Please refer to Common Response 3, Alternatives Development and Description, regarding new water storage alternatives.
597-69	[Attachment 15: Excel sheet listing the 2021 GWh used by different California Counties with "Tunnel Operations" included on the list.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-70	[Attachment 16: Letter report from mechanical engineer Alan Werner regarding an energy assessment of the SWP pumping stations.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-71	[Attachment 17: Photo of the Banks Pumping Station Spec Plate which was built in the 1960s.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-72	[Attachment 18: Article from www.pumpsandsystems.com titled "Designing a New Pump for a Water Resources Pumping Plant", dated December 17, 2011.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
597-73	[Attachment 19: Three comment letters from residents of Discovery Bay regarding the EIR.]	The commenter provided this attachment for reference purposes in support of their comments, which are copies of letters 576, 581, and 587. Those comments are addressed in these responses to the commenter's letter and in the responses to letters 576, 581, and 587. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, to locate DWR responses to the letters provided in this attachment, and contained in Chapter 4, Response to Comments Tables.

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597-74	[Attachment 20: Comment letter with attachments from Mario Moreno, Chairman of the Hood Community Council, dated December 14, 2022.]	The commenter provided this attachment for reference purposes in support of their comments, which is also a copy of letter 535. Those comments are addressed in these responses to the commenter's letter and in the responses to letter 535.
597-75	Attachment 21: Chapters 5, 6 of the "Pump System Optimization Handbook" referenced in Attachment 16.	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
604-1	Please find attached the comments of Friends of the River et al. on the Delta Conveyance Project Draft EIR. Please acknowledge receipt for our records. Best wishes for the holidays and new year!	Confirmation emails were sent automatically to all senders upon receipt of emailed comments during the public review period for the Delta Conveyance Project Draft EIR.
604-2	Friends of the River (FOR), California Water Impact Network (C-WIN), Environmental Protection Information Center (EPIC), Institute for Fisheries Resources (IFR), Northern California Council, Fly Fishers International (NCCFFI), Pacific Coast Federation of Fishermen's Associations (PCFFA), Planning and Conservation League (PCL), South Yuba River Citizens League (SYRCL), and Tryg Sletteland respectfully submit the following comments and recommendations for the Draft Environmental Impact Report (DEIR) pursuant to California Environmental Quality Act (CEQA) for the California Department of Water Resources' (DWR or "Department") proposed Delta Conveyance Project (DCP, "Project," or "Delta Tunnel"). We request that these comments be considered regarding substance of the environmental review and the potential impacts of the proposed project on Northern California watersheds and communities.	This information describes the structure or organization of the comment letter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
604-3	In summary, FOR [Friends of the River] believes the DEIR does not meet the legal requirements of the California Environmental Quality Act ("CEQA") due to the following:	The assertion that the EIR inadequately identifies the project purpose, objectives, and beneficiaries is not consistent with the contents of the EIR.

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	- The DEIR is inherently flawed because the project purpose and beneficiaries are unclear.	Please refer to Chapter 2, Purpose and Project Objectives, regarding the project purpose and objectives. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the scope of the purpose and objectives statements under CEQA and a discussion of the appropriateness of the project purpose and objectives. Please see Chapter 1, Introduction, subsection titled Public Water Agencies/Project Beneficiaries, regarding public water agencies and project beneficiaries.
604-4	In summary, FOR believes the DEIR does not meet the legal requirements of the California Environmental Quality Act ("CEQA") due to the following: - The DEIR inappropriately and illegally narrows the geographic scope of the project.	Please refer to Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the selection of the study areas evaluated in the EIR.
604-5	In summary, FOR believes the DEIR does not meet the legal requirements of the California Environmental Quality Act ("CEQA") due to the following: - The DEIR inappropriately and illegally narrows the scope of subject matter area in its analysis, including operational impacts.	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approach to the CEQA analysis, and the length and complexity of the document. The assertion of the comment that DWR inappropriately and illegally narrows the scope of subject matter areas is not supported by the contents of the EIR. More than 50 individual impacts are evaluated in the EIR across 31 different resources, and more than 80 mitigation measures are proposed throughout the EIR to reduce impacts on various resources. (Please refer to the Executive Summary table titled Summary of Delta Conveyance Project Impacts and Mitigation Measures.) Operational impacts are evaluated in each of the relevant resource chapters based on the narrative description in Chapter 3, Description of the Proposed Project and Alternatives, and the modeling results contained throughout the EIR.
604-6	In summary, FOR [Friends of the River] believes the DEIR does not meet the legal requirements of the California Environmental Quality Act ("CEQA") due to the following: - The Project is effectively part of larger projects to increase dams and diversions from rivers in the state to augment exports to the south state.	Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes (i.e., dams or reservoirs). Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding an analysis of

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		the Delta Conveyance Project as a whole within the EIR, pursuant to CEQA. The Delta Conveyance Project is separate and independent from other potential water supply projects. Water supply projects that are considered cumulative projects (e.g., Sites Reservoir) or projects that public water agencies may pursue under the No Project Alternative are evaluated in the cumulative impact analysis of each resource chapter or in the No Project Alternative discussion in each resource chapter.
604-7	In summary, FOR [Friends of the River] believes the DEIR does not meet the legal requirements of the California Environmental Quality Act ("CEQA") due to the following: - Due to the above flaws, the DEIR does not provide adequate safeguards and mitigation measures for California's rivers.	The EIR has been prepared in compliance with CEQA. Responses to specific comments asserting flaws and lack of mitigation in the EIR are responded to herein. Furthermore, a description of the adequacy of the EIR mitigation measures under CEQA is provided in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues.
604-8	More details are provided below regarding these assertions. FOR [Friends of the River] appreciates DWR's extension allowing for additional time for public comment. Robust public engagement is vital to truly assess the environmental impacts of this project to public trust resources, and the full geographic scope of the project impacts to the state's major watersheds, rivers, and to the San Francisco Bay/Sacramento-San Joaquin Delta, one of the largest estuaries in the United States.	This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR is committed to public engagement, as described in Chapter 35, Public Involvement. Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.
604-9	I. Overarching Comments The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project.	Please refer to response to comment 604-3 regarding the project's purpose, objectives, and beneficiaries. The commenter references a 2010 letter from the U.S. Environmental Protection Agency that was submitted on the Bay Delta Conservation Plan/California WaterFix project. Thus, the letter does not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The

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	p. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. (1) First, the purpose inherently suggests the Project will result in changes that will be adverse to the environment. "Restoring" water "deliveries" to the State's two largest water projects indicates that some previous "deficiency" will be recovered. At face value, that means more water will be taken. Millions of additional acre-feet of water could be exported from California rivers, which creates impacts that this DEIR does not disclose, analyze, or mitigate. Relative to current conditions, excess diversions would cause serious harm to rivers and watersheds tributary to the Delta. The prospect of additional exports from the Delta also perturbed the United States Environmental Protection Agency, which stated in a 2010 letter regarding the Bay Delta Conservation Plan, "EPA does not believe that we can attain the goal of a sustainable estuary if we are simultaneously trying to export an additional 1 million acre feet from that estuary."[Footnote 2: “RE Purpose Statement for Bay Delta Conservation Plan,” Letter to federal agencies (USBR, USFWS, NMFS) from the United States Environmental Protection Agency, June 2010, p.5. Access online. This document, and all other references to a specific website or hyperlink, are hereby incorporated by reference.] Pumping constraints in the Delta have limited the amount of water that can be drawn from storage throughout the network of reservoirs already existing in the Sierra Nevada and Coast Mountain Ranges. These natural and stored river flows have	following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. The comment assertion that the project purpose inherently suggests the project would result in adverse changes to the environment is unfounded. As described throughout the EIR and stated in the project objectives, the project would be operated consistent with the requirements of state and federal law, including the California and federal Endangered Species Acts and Delta Reform Act. Please refer to Common Response 3, Alternatives Development and Description, regarding operations of the Delta Conveyance Project, including how the project would be operated to shift diversions from the south Delta to the north Delta (during the summer and fall) or divert water in the north Delta during excess flow conditions while meeting regulatory requirements (during the winter and spring). The analyses provided in EIR Chapters 532 evaluate the potential impacts of the proposed operations, as described in Chapter 3, and accurately represented by the CalSim 3 model for all alternatives. For example, Chapter 6, Water Supply, discloses the potential changes in exports as a result of the proposed project and its alternatives. Chapters 7–32 evaluate the potentially significant physical environmental impacts of these changes in exports where applicable. Please see Common Response 17, Public Trust, regarding the EIR’s analysis of public trust resources.

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	formed the remaining essential, and mostly north-state, public trust resources since the creation of the modern water system.	
604-10	The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project. P. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. (2) Second, the Project purpose does not even indicate, with confidence, who will be beneficiaries of the Project. CVP water exports will "potentially" be restored. The CVP is the largest purveyor of water in the State. Inclusion of CVP delivery reliability as a project purpose could more than double Project impacts, and greatly alter any potential project operations. Additionally, including the CVP would produce a huge subset of indirect and cumulative impacts that were not considered in this DEIR. DWR must disclose all potential project impacts to the public, but it simply can't adequately disclose impacts without knowing who the project will benefit.	Please refer to response to comment 604-3 regarding the project's purpose, objectives, and beneficiaries. As described in Chapter 4, Framework for the Environmental Analysis, the Bureau of Reclamation has not expressed interest in participating in the Delta Conveyance Project as project proponents; however, potential direct and indirect impacts of CVP participation are evaluated under Alternatives 2a and 4a. Please also refer to response to comment 604-11, which discusses project beneficiaries.
604-11	The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and	Please refer to the Executive Summary and Chapter 1, Introduction, regarding how public water agencies would benefit from increased operational flexibility of the SWP and provide end users with a more reliable water supply that is responsive to anticipated variations due to

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	protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project. P. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. In fact, the SWP and CVP storage reservoirs are not the only facilities proposed to be used by the project. Other non-federal and non-state actors would also find their south of Delta transfers to be facilitated by the Tunnel. These could include Yuba County Water Agency's transfer program, [Footnote 3: "Yuba Water approves agreement to transfer water to Bay Area agencies in 2022," Yuba Water Agency, December 7, 2021. Access online [https://www.yubawater.org/CivicAlerts.aspx?AID=166].] [Footnote 4: "Lower Yuba River Accord," Yuba Water Agency, web page with details about the Water Transfer Program. Access online [https://www.yubawater.org/157/Lower-Yuba-River-Accord]] the major groundwater transfers from the upper Sacramento Valley, [Footnote 5: "2022 Sacramento Valley Water Transfers," State Water Resources Control Board, web page, March 15, 2022. Access online.[https://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/transfers_tu_notices/2022_sacramento_valley.html]] Sacramento County regional groundwater transfers, [Footnote 6: "Groundwater Substitution Transfer," City of Sacramento,	climate change. The EIR discusses beneficiaries including those public water agencies that receive water from the SWP and end users (e.g., urban users) supplied by public water suppliers. As described in Chapter 1, public water suppliers in different regions of the State of California would participate in the Delta Conveyance Project. Please also refer to Chapter 2, Purpose and Project Objectives, regarding end users, public water suppliers, and a detailed, CEQA-compliant listing of the project objectives and purpose. The project does not propose modifications, nor can it modify, existing regulations governing the operation of the SWP or the CVP facilities. Please refer to Appendix 3H, Non-Project Water Transfer Analysis for Delta Conveyance, which describes the potential use of new facilities for water transfers. As noted in Chapter 3, Description of the Proposed Project and Alternatives, and described in Appendix 3H, even though the Delta Conveyance Project may add additional export capacity, it is unlikely to increase the amount of water transfers, since the current capacity is not fully utilized.

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	web page. Access online.[https://www.cityofsacramento.org/Utilities/Water/Current-Projects/Groundwater-Substitution-Transfer]] and Placer County Water Agency's sales from its Middle Fork American River project. [Footnote 7: "Notice of Petition for Temporary change Involving the Transfer of up to 21, 053 acre-feet of Water from Placer County Water Agency to East Bay Municipal Utility District Under Permit 13856 (Application 18085)," State Water Resources Control Board, June 3, 2022. Access online. [https://www.waterboards.ca.gov/waterrights/water_issues/programs/petitions/docs/a018085-notice.pdf]] This is not necessarily a comprehensive list. The DEIR does not examine the impact of Tunnel-facilitated additional water exports on source watersheds and the water system.	
604-12	The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project. P. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. Further, if federal facilities are indeed included as part of the Delta Tunnel project, then a full EIS must be completed, along with a slew of other requirements, including compliance with	Chapter 1, Introduction, provides a description of the intended uses of the EIR and state agency roles and responsibilities and a listing of federal agencies and their respective potential review, approval, and responsibilities in addition to those under NEPA. Chapter 2, Purpose and Project Objectives, explicitly identifies the purpose of the project. As described in this chapter, public water suppliers in different regions of the State of California would participate in the Delta Conveyance Project. Please refer to the section in Chapter 1 titled U.S. Army Corps of Engineers and to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the involvement of the U.S. Army Corps of Engineers and the publication of a Draft EIS in 2022.

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	the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act. The CVP and State Water Project contractors are not the only proposed beneficiaries of the project.	
604-13	The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project. P. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. (3) Third, the Project purpose is not clearly, nor honestly, defined. Historic iterations of Delta "conveyance" facilities indicate the true purpose of the project —to increase water exports to contractors south of the Delta for consumptive use. The current articulation of the project purpose is uninformed regarding California water history, and therefore misleads the public and decisionmakers by obfuscating a significant and reasonably foreseeable impact of the Tunnel: it is the great enabler in a plan to dam more rivers to increase water exports. Confusing language, meant to conceal the honest intent of the project, has mislead the public and decisionmakers, and has prevented an honest and holistic analysis of environmental impacts.	Please see responses to comments 604-3 through 604-9 regarding project beneficiaries, the scope of the project purpose and objectives statements for the purposes of CEQA, and proposed operations. The assertion of the comment regarding the project enabling the damming of more rivers is not supported by the description of the operations of the project or the contents of the EIR. Multiple variables are considered by local, regional, state, and federal stakeholders when considering surface water reservoir projects and it would be speculative to infer or assume that the Delta Conveyance Project would lead to surface water reservoir projects not already contemplated by other stakeholders or agencies (e.g., Sites Reservoir). Please refer to detailed responses to Letter 604 contained herein regarding growth-inducement claims and claims of the Delta Conveyance Project resulting in future dams (e.g., responses to comments 604-19 and 604-30).

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604-14	The DEIR is inherently flawed because the project purpose and beneficiaries are not adequately disclosed. The DEIR states the purpose of the project is, "to restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner." [Footnote 1: State of California, Department of Water Resources (2022). Draft Environmental Impact Report. Delta Conveyance Project. P. ES-1.] [Emphasis added]. FOR [Friends of the River] finds three key issues with this statement of purpose. Additionally, this confusing purpose statement has created a false dichotomy that limited the development of a reasonable suite of alternatives. The public needn't choose only between (1) status quo infrastructure with seismic vulnerability, and (2) various export tunnel options to mitigate such vulnerability. Numerous other alternatives exist to protect water supply reliability, such as nature-based solutions, and demand management. In fact, in Executive Order N-10-19, which established the Water Resilience Portfolio, Governor Newsom's orders agencies to "prioritize multi-benefit approaches," and "utilize natural infrastructure." [Footnote 8: California Executive Order N-10-19, April 29, 2019. Access online. [https://www.gov.ca.gov/wp-content/uploads/2019/04/4.29.19-EO-N-10-19-Attested.pdf]] This project does not embody either of these principles. Deficiencies in the selection of alternatives is described in more detail in the comments of Sierra Club California et al.	The EIR adequately discloses the project purpose and beneficiaries. Please refer to response to comment 604-3 regarding the project's purpose, objectives, and beneficiaries. Please also refer to response to comment 604-11, which discusses project beneficiaries. The Department of Water Resources followed CEQA requirements when identifying alternatives to be considered for evaluation in the EIR. As described in Common Response 3, Alternatives Development and Description, CEQA requires lead agencies to develop project objectives to inform the identification of the project and a reasonable range of potentially feasible alternatives. CEQA does not require consideration of every variation of every alternative; CEQA requires an EIR to include a reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen one or more of the significant effects of the project. Common Response 3 provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. Please also refer to Common Response 5, Public Water Agencies Water Management Practices, regarding water supply demand management. The California Water Resilience Portfolio includes numerous local and regional water management and conservation actions including modernized Delta conveyance to improve California water supply conditions. These actions are occurring concurrently, recognizing that multiple actions, including new diversion and conveyance facilities in the Sacramento-San Joaquin Delta, are needed to improve California's water supply resilience. For the full context of the Sierra Club comments that are referenced and a complete response to those remarks, please refer to Volume 2, Chapter 2,

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		Indices of Commenters and Index of Primary Forms, to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Volume 2, Chapter 4, Response to Comments Tables.
604-15	The DEIR improperly narrows the Project Area and Study Area and accordingly, fails to identify and analyze all potential Project impacts. The DEIR does not adequately consider upstream impacts of the Project and its operation, and instead wrongly narrows the geographic scope of its environmental analysis. The scope has been narrowed to include only the Project footprint, the Delta, and CVP/SWP project areas. [Footnote 9: DEIR, Section 1.4, Project Area and Study Areas, p. 1-29.] Due to the interconnected nature of environmental resources in streams and rivers, and water supply and demand dynamics across the state, this narrowed approach is unfounded. Although this is a large area, it is not large enough: The current project scope does not adequately capture potential direct and indirect impacts to upstream communities and riverine systems as a result of the project and subsequent increased exports. As discussed throughout these comments, the scope of the DEIR should be larger. The Tunnel will also facilitate water transfers from independent facilities (non-SWP and non-CVP) to beneficiaries that may or may not be within the SWP or CVP service areas. Impacts to these source areas and additional service areas must be disclosed and analyzed in this DEIR. Failing to do so violates CEQA. For more discussion of CEQA violations, please refer to the comments of NRDC et al., sections IV and V, titled "The DEIR Fails to Consider the Whole of the Action, Violating CEQA," and "The DEIR's Analysis of	The comment assertions regarding upstream effects are not supported by the analysis contained in the EIR. The EIR provides an impact analysis based on the impact mechanisms and specific study area on all environmental resources raised by the comment. Please refer to Chapter 4, Framework for the Environmental Analysis, which discusses the evaluation methodology in the EIR. Within the EIR, each resource chapter provides comprehensive analyses of construction and operations of the project elements including maintenance requirements and discloses resource specific impacts, both direct and reasonably foreseeable indirect impacts, to each. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the scope of analysis and the selection of the study areas evaluated in the EIR. The project does not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes and would not increase storage withdrawal for exports, except flood releases, even though the proposed Delta Conveyance Project may provide additional diversion capacity. In addition, Common Response 1 discusses the overall approach to evaluating cumulative impacts throughout the EIR and the projects evaluated in the cumulative impact analyses. Please see Chapter 12, Fish and Aquatic Resources, and Chapter 17, Socioeconomics, for impacts on riverine systems and effects on communities, respectively. Please also refer to Common Response 9, Hydrologic Modeling and Approach, regarding modeled representation of upstream effects, and please refer to Chapter 9, Water Quality, which discusses the study area and impacts in consideration of areas upstream of the north Delta intakes.

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	Cumulative Impacts Violates CEQA," respectively, incorporated herein. [Footnote 10: Similarly, we adopt by reference the comments of the California Sportfishing Protection Alliance (CSPA) on the Draft Environmental Impact Report for the Delta Conveyance Project.]	Please refer to Common Response 3, Alternatives Development and Description, regarding information about operations and upstream reservoir storage. Please refer to responses to comments 604-11 and 604-12 regarding water transfers and project beneficiaries. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, of the Final EIR for the Delta Conveyance Project to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Volume 2, Chapter 4, Response to Comments Tables.
604-16	This approach is also deaf to the entire history of California water. Every historical iteration of this project was part of a plan to increase water exports south of the Delta. The DCP is no different.	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Furthermore, as described in Chapter 1, Introduction, the Delta Conveyance Project is a different design and configuration when compared to past projects considered by DWR.
604-17	The Delta Tunnel is a project of statewide significance and has the potential to further exploit north state water resources to serve south state demand centers. Therefore, DWR, the CEQA lead agency, should expand the geographic scope of environmental analysis to capture reasonably foreseeable project impacts "upstream" of the Delta. Friends of the River et	Please see response to comment 604-15 regarding the selection of the study areas in the EIR, project operations, and a discussion of areas upstream of the north Delta intakes, including those rivers identified by the comment (as well as the San Joaquin River). Please refer to Common Response 9, Hydrologic Modeling and Approach, regarding a discussion of the hydrologic modeled upstream effects. Please refer to Chapter 9, Water

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	al. details some of these potential impacts below, and identifies direct and imminent threats to the American River, Eel River, Klamath River, McCloud River, Sacramento River, San Joaquin River, Trinity River, and the Yuba River.	Quality, for a discussion of the study area, impacts, and mitigation, and significance determinations related to water quality impacts.
604-18	North state water supply development is a reasonably foreseeable outcome of the Delta Conveyance Project The purpose of the Delta Conveyance Project is to "…restore and protect the reliability of State Water Project (SWP) water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta…" [Footnote 11: DEIR, Executive Summary, ES-1.] Again, the implication here is that these "deliveries" were once more viable and now should be restored. Of course, these water projects have always had more entitlements than they are able to exercise in any given year, either due to naturally occurring hydrological conditions (drought) or operational and physical constraints. Nevertheless, over time more demand for surface waters has built up (think large expansions of orchard crop acres in production). Millions of acre-feet of groundwater are now used unsustainably. The combination of excess demand and unrealized entitlements creates political demand to eliminate supply bottlenecks. The Tunnel is just such a response. In such circumstances, removing Delta physical constraints will reasonably and undoubtedly result in more water exports from project facilities north of the Delta to contractors south of the Delta. Operational discretion and demand pressures could therefore reasonably be expected to cause lower north-state reservoir levels (SWP, CVP, and otherwise) in some or many years with	The analysis contained in the EIR does not support the assertion by the comment that the project will significantly affect current operations, will change upstream water supply, or will result in adverse impacts on aquatic resources, such as fish and downstream reservoirs. The Delta Conveyance Project is not proposing changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes and will not change the amount of storage provided by upstream facilities. DWR would not increase storage withdrawal for exports, except flood releases, even though the Delta Conveyance Project may provide additional diversion capacity. The project also does not preclude future changes to the state's water supply either through modifications of the operation of existing facilities or increasing water storage. As described in Common Response 3, Alternatives Development and Description, the proposed intakes would only be permitted to operate as prescribed by the federal and state environmental permitting processes in compliance with the federal and state endangered species acts regarding special-status aquatic resources, including listed salmonids. As the commenter notes, Chapter 2, Purpose and Project Objectives, describes the basic purpose of the Delta Conveyance Project is to restore and protect the reliability of SWP water deliveries. The Delta Conveyance Project helps meet this by constructing and operating new water supply facilities within the Delta. Refer to Chapter 3, Description of the Proposed Project and Alternatives, for a description of proposed project operations. See the section in Chapter 3 titled Intake Operations and Maintenance and the section titled Real-Time Operational Decision-Making Process. Additionally, as presented in Chapter 5, Surface Water, changes in north-of-Delta reservoirs as a result of the project would be minimal. Please see

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	consequent adverse temperature and flow impacts to downstream fisheries and reservoir amenities. In one case, such operational changes could affect a legally protected wild and scenic river (discussed in greater detail below).	the four Chapter 5 tables titled Changes to Trinity Lake Storage under the Project Alternatives, Changes to Shasta Lake Storage under the Project Alternatives, Changes to Lake Oroville Storage under the Project Alternatives, and Changes to Folsom Lake Storage under the Project Alternatives. The Chapter 3 table titled Delta Conveyance Project Preliminary Proposed Operations Criteria describes the criteria under which the north Delta diversions would operate and identifies specific flows the Sacramento River must meet before the diversions can occur. Chapter 9, Water Quality, details how operations and maintenance will not affect downstream waterbodies or substantially degrade the quality of these waterbodies with regard to water quality constituents.
604-19	More importantly, with operational constraints reduced, south-of-Delta water interests are more likely to find attractive new water storage projects on Northern California rivers. Such reservoir expansions or new dams and diversions, in the absence of the DCP, would otherwise be poor or risky investments. In fact, several major water interests south of the Delta have stated on record their unwillingness to invest in water storage north of the Delta without Delta workaround infrastructure (described below). The Delta Tunnel is precisely the workaround infrastructure needed to pipe more water from north to south. Some poorly conceived projects even include dams and diversions that conflict with state and federal laws to protect the extraordinary values and free-flowing character of wild and scenic rivers. Lastly, some lawmakers are even seeking to unravel such protections (i.e. State and Federal wild and scenic designations), to move reckless water storage projects forward (discussed in greater detail below). Thus, any project which	It is speculative to connect potential future water supply infrastructure projects to the construction or operation of the Delta Conveyance Project because of the many factors that influence various lead agencies and decision makers to pursue infrastructure projects. For example, funding influences the decision to pursue infrastructure projects. Furthermore, as described in Chapter 31, Growth Inducement, the increase in potential SWP annual average water supply would act as a water stabilization source as it would restore previously contracted amounts. The project would restore amounts of water that agencies have previously received that have been reduced due to regulatory requirements. This use of this restored water supply would not provide an avenue for pursuing additional infrastructure projects. Water supply projects that are considered cumulative projects (e.g., Sites Reservoir) or projects that public water agencies may pursue under the No Project Alternative are evaluated in the cumulative impact analysis of each resource chapter or the No Project Alternative discussion in each resource chapter. Mitigation measures are proposed if potentially significant impacts are identified.

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	serves to export water from north of the Delta to south of the Delta must carefully consider direct and indirect impacts from water supply development on Northern California rivers. Mitigation, perhaps unsurprisingly, is not proposed by the draft EIR.	
604-20	The DEIR does not adequately consider the "growth-inducing impact" of the Project: Completion of the Delta Tunnel project will open the proverbial faucet, where water exports flow from Northern California watersheds to Southern California users. California Public Resources Code states, "The environmental impact report shall include a detailed statement setting forth" the growth-inducing impact of the proposed project." [Footnote 12: California Code of Public Resources, Division 13, Chapter 3, § 21100 (b)(5)]. The DEIR failed to adequately consider the growth-inducing impact from the Delta Tunnel project on the California water system, and the resulting impacts from additional infrastructure. Under CEQA, this "growth inducing" test is often applied to roadway projects, which could allow more traffic through an area and therefore increase the likelihood of development and population growth. It is also applied to other infrastructure which may remove bottle necks for a necessary resource (i.e. capacity of a wastewater treatment facility limits local population size). However, this statute should not be interpreted only to consider population growth and its resultant impacts. The CEQA Guidelines provide clear instruction that "growth" includes the impact of new water infrastructure and consequent changes to system operations on the environment:	Chapter 31, Growth Inducement, evaluates inducing substantial unplanned population growth in an area, either directly or indirectly, such that additional facilities would need to be established to support such growth. This evaluation is focused on “the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment” (CEQA Guidelines § 15126.2(e)). It appropriately identifies direct and indirect growth that could occur as a result of construction or operation of each alternative. Please refer to response to comment 604-19 regarding the evaluation of potential cumulative impacts associated with cumulative water supply projects or projects that may occur under the No Project Alternative. The EIR appropriately evaluates cumulative impacts of potential water supply projects on fish, wildlife, sensitive species, in Chapters 12, Fish and Aquatic Resources, and 13, Terrestrial Biological Resources, and proposes mitigation measures for potentially significant environmental impacts, where appropriate. Similarly, potential impacts that may occur under the No Project Alternative and actions that public water agencies may take are disclosed in Chapters 12 and 13, as well as all other resource chapters of the EIR.

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	"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. [...] Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."[Footnote 13: 13 California Code of Regulations, Title 14, Division 6, Chapter 3, § 15126.2 (e).] [Emphasis added]. The DEIR must consider the growth-inducing impact this project will have on the California water system and infrastructure. Construction of the Delta Tunnel will remove a major bottleneck to water conveyance (Delta pumping limitations) - a bottleneck which has historically made infeasible additional dams and diversions. However, there is an assemblage of these projects throughout the State that are either approved, proposed, or aspirational. Some are even partially funded. Removing the Delta bottleneck will remove one of the greatest financial and physical roadblocks for these projects. The Delta Tunnel is the first domino. DWR, however, shunts aside its CEQA responsibility to analyze the Tunnel's likeliness to encourage and facilitate other activities that could significantly affect the environment. Instead, it completely ignores any of the potential dams and diversions that the Tunnel would enable, or their resultant impacts. New dams and diversions would also cause additional impacts from construction, operations, and increased demands	

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	on scarce resources such as water, with impacts to fish, wildlife, sensitive species, and communities. Because the DEIR fails to analyze or disclose these impacts, the DEIR also fails to provide appropriate mitigation for such impacts.	
604-21	FOR [Friends of the River] discusses, in detail, this chain of dominos [related to how construction of the Delta Tunnel will remove a major bottleneck to water conveyance (Delta pumping limitations)--a bottleneck which has historically made infeasible additional dams and diversions] below. The DEIR inappropriately and illegally narrows the scope of subject matter area in its analysis, including operational impacts. Broadly, the DEIR fails to consider the effects of the Tunnel on existing and future circumstances. It constrains its analysis, excluding important history, operational changes, and political pressures--all of which will contribute to outcomes that have not been considered. This project is potentially the most significant water project of our generation due to its scale and impact on state water supply and transport. The DEIR impact analyses must (1) occur at a comparable scale, and (2) reflect a realistic or probable future that would occur as a result of project construction and operation. This iteration of the DEIR fails to do so.	Please refer to response to comment 604-5 regarding the scope of subject matter areas in the EIR analysis. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding CEQA requirements for defining the existing conditions baseline. CEQA does not require consideration of political pressures in the baseline or analysis. The analysis throughout the EIR provides comparisons between existing conditions baseline and alternative conditions and therefore describes to decision makers the potentially significant impacts that could occur under different alternative conditions. As described in Common Response 1, the cumulative approach taken in the EIR considers reasonably foreseeable future plans, projects, or actions pursuant to CEQA requirements. Please also refer to responses to comments 604-19 and 604-20 regarding potential future water supply infrastructure projects and the evaluation of potential cumulative impacts.
604-22	The DEIR is not consistent with the State's Water Resilience Portfolio. The NOP for the Tunnels asserted that the DCP would be consistent with the State's Water Resilience Portfolio.[Footnote 14: Notice of Preparation of Environmental	As defined by Section 15375 of the State CEQA Guidelines, the notice of preparation (NOP) is a brief notice provided by the lead agency to other agencies and the public identifying that the lead agency plans to prepare an EIR for a project. The purpose of the NOP is to solicit guidance from other agencies as to the scope and content of the EIR. The NOP produced by DWR was fully compliant with CEQA. Please refer to Common Response

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	Impact Report for the Delta Conveyance Project," State of California, Department of Water Resources, January 15, 2020. P. 2. Access online. [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Delta_Conveyance_Project_NOP_20200115_508.pdf]] However, FOR [Friends of the River] finds that the Delta Tunnels project fails to meet this objective for the following reasons: (1) Impacts to rivers, especially dams and diversions ennabled by the completion of the Delta Tunnel, are ignored in the DEIR (discussed in great detail below). However, the health of California rivers is a one of four main goals outlined in the Governor's Water Resilience Portfolio. [Footnote 15: "Water Resilience Portfolio, January 2020" California Natural Resources Agency, California Environmental Protection Agency, and California Department of Food and Agriculture, 2020, see Executive Summary. Access online. [https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/Final_California-Water-Resilience-Portfolio-2020_ADA3_v2_ay11-opt.pdf]] It asserts: State leadership is essential to restore the environmental health of many of our river systems (See Goal 2, Executive Summary). [Footnote 16: Ibid, Executive Summary.] While using water from our rivers has fueled our state's growth and prosperity, taking too much water from river systems degrades ecosystems and water quality, affecting the state's long-term health and economic viability (p. 11). [Footnote 17: Ibid, p. 11]. The DEIR should be consistent with the Water Resilience	8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the relationship of the Delta Conveyance Project to the California Water Resilience Portfolio. As described in Common Response 8, making a formal consistency determination or analysis with the Portfolio is not required of the Delta Conveyance Project nor a requirement of CEQA. The project objectives presented in Chapter 2, Purpose and Project Objectives, address what the Delta Conveyance Project is focused on accomplishing, in part, to further the California Water Resiliency Portfolio action to modernize Delta conveyance infrastructure and improve water supply reliability. The information contained in Executive Order N-10-19 (e.g., criteria and priorities) and the Water Resilience Portfolio are intended to guide the development of the portfolio of options to improve water resilience in California as a whole and are not intended to be CEQA alternatives screening criteria for project EIRs, nor used to analyze the Delta Conveyance Project. The EIR appropriately evaluated reasonably foreseeable future projects as part of the cumulative impact analysis as described in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. As noted in Common Response 1, EIR Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, provides information on the reasonably foreseeable future projects identified for inclusion in the cumulative impacts analysis, particularly in the Appendix 3C table titled Descriptions of Programs, Projects, and Policies Considered for Existing Conditions, No Project Alternative, and Cumulative Impact Analysis. The table includes new reservoir projects and reservoir expansion projects that were considered in the cumulative effects analysis where appropriate for resource topics covered in the EIR (e.g., Del Puerto Canyon Reservoir and Los Vaqueros Reservoir Expansion Project). Please also refer to response to comment 604-19 regarding why it is speculative to connect potential future water supply infrastructure projects to the construction or operation of the Delta Conveyance Project.

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	Portfolio and Executive Order N-10-19. Instead, it fails to consider the impacts of additional dam projects that would be enabled by the tunnel. This DEIR does not uphold the values of restoring environmental health of rivers or minimizing take from river systems.	
604-23	The DEIR is not consistent with the State's Water Resilience Portfolio. The NOP for the Tunnels asserted that the DCP would be consistent with the State's Water Resilience Portfolio. [Footnote 14: Notice of Preparation of Environmental Impact Report for the Delta Conveyance Project," State of California, Department of Water Resources, January 15, 2020. P. 2. Access online. [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Delta_Conveyance_Project_NOP_20200115_508.pdf]. However, FOR [Friends of the River] finds that the Delta Tunnels project fails to meet this objective for the following reasons: (2) Uncertainty in climate change modeling coupled with unrealistic model assumptions has undermined any attempt to determine a likely climate future. As described in more detail in the NRDC et al. comments, the DEIR climate modelling is completely inconsistent with the DEIR's descriptions of the effects of climate change and the best available science. The DEIR modeling assumptions predict that climate change will increase runoff, and create a hotter, wetter future. This is highly unlikely and contradictory to more recent State documents such as the Governor's Water Supply Strategy. [Footnote 18: Water Supply Strategy" California Natural Resources Agency, California Department of Water Resources,	Please see response to comment 604-22 regarding the purpose of a notice of preparation under CEQA. Please also see response to comment 604-22 regarding the relationship between the Delta Conveyance Project and the State's Water Resilience Portfolio. Information describing how climate change is considered in the analysis is presented in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, as well as Chapter 30, Climate Change, and associated appendices. Please also see Common Response 6, Climate Resilience and Adaptation, regarding aspects associated with the Delta Conveyance Project's ability to offer adaptation and resilience to climate change and Common Response 9, Hydrologic Modeling and Approach, regarding climate change modeling and assumptions. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, of the Final EIR for the Delta Conveyance Project to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Volume 2, Chapter 4, Response to Comments Tables.

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	State Water Resources Control Board, California Environmental Protection Agency, and California Department of Food and Agriculture, August 2022. Access online. [https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf]]	
604-24	The DEIR is not consistent with the State's Water Resilience Portfolio. The NOP for the Tunnels asserted that the DCP would be consistent with the State's Water Resilience Portfolio.14 However, FOR [Friends of the River] finds that the Delta Tunnels project fails to meet this objective for the following reasons: (3) Impacts from existing aging infrastructure are not disclosed. The State's aging water infrastructure is a component of Tunnel operations. Such infrastructure, already vulnerable to catastrophic failure, is subject to increased pressures by climate-related natural disasters. Further, with climate aridification and warming, the Delta Tunnel revenue stream will be jeopardized. Funding streams necessary to maintain the Tunnel and the required repairs of its network of 50+ year old canals and dams will likely dissolve. Resulting rate increases and/or lack of revenue will significantly and disproportionately impact rural and disadvantaged communities both from where this water is taken and to where it is exported. Excluding these impacts does not support water resilience, and these impacts must be disclosed.	Please see response to comment 604-22 regarding the purpose of a notice of preparation under CEQA. Please also see response to comment 604-22 regarding the relationship between the Delta Conveyance Project and the State's Water Resilience Portfolio. The EIR appropriately defines baseline and compares project alternatives to the baseline to disclose potentially significant environmental impacts as described in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. The baseline reflects the current condition of the State's existing water supply infrastructure and is therefore included in the analysis in the EIR. Common Response 1 also provides information regarding the scope of the purpose and objectives of the Delta Conveyance Project, which include climate change resilience and consideration of seismic events. Please see Common Response 6, Climate Resilience and Adaptation, regarding how the project would provide climate change resilience to the SWP. Please see Chapter 1, Introduction, for information on the background of the project including a discussion of issues affecting the Delta and the SWP today, as well as information on the current planning effort for the Delta Conveyance Project. Please see Common Response 7, Implementation Considerations, for information on project costs and funding sources, including costs to public water agencies, water users, and taxpayers. As described in Common Response 7, the rates charged to water users by individual water agencies receiving SWP supplies are based on the independent rate-setting policies of those agencies. Each participating water agency and its managing board will assess the potential for rate increases due to the project and will determine the degree of

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		impact on their customers, including low-income residents and disadvantaged communities, before agreeing to participate in the project.
604-25	Unfortunately, DWR selected a single modeled future with a low probability to design this project. Instead, for system resiliency, model design and selection must be robust enough to handle a range of different climate futures. This incorrect forecasting will only heighten the risk of dangerous proposals such as Auburn Dam and is more reason why this DEIR should be revised and recirculated.	DWR used the most conservative, risk-averse sea level rise scenario to inform project design and operations, consistent with California Ocean Protection Council's State of California Sea-Level Rise Guidance Update 2018. Please refer to Chapter 3, Description of the Proposed Project and Alternatives, in the section titled Design for Climate Change and Sea Level Rise, for detailed information regarding how the project design considers climate change and sea level rise. DWR used the best available science and tools at the time of the analysis. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of the best available science and information. Please refer to Common Response 9, Hydrologic Modeling and Approach, regarding the use of the best available modeling tools. As discussed in Chapter 30, Climate Change, and Chapter 4, Framework for the Environmental Analysis, CEQA requires an evaluation of how a project could affect climate change but does not require an analysis of how climate change could affect environmental resources. Nevertheless, DWR evaluated climate change impacts in several locations in the EIR using multiple climate change scenarios and timeframes for informational purposes. Please refer to Common Response 6, Climate Resilience and Adaptation, for a description of all of the climate change and sea level rise analyses in the EIR. Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, summarizes results under additional 2040 climate scenarios to understand anticipated changes in variables relevant to project operations under a broader range of climate scenarios. The project

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		alternatives are evaluated using a projection of future climate that includes changes in temperature, precipitation and hydrology, and sea level rise. The sensitivity analysis demonstrated the reliability of the climate change and sea level rise analysis presented in the EIR. Please refer to Common Response 6 and Common Response 9 for a detailed explanation of the sensitivity analysis. The EIR does not need to be recirculated to include additional modeling. Please also see Common Response 1 regarding recirculation and the legal requirements for recirculation.
604-26	The Delta Conveyance Project will Increase Pressure for Projects that Dam and Divert North-State Rivers: A consequence of the DCP is that its beneficiaries (SWP and CVP contractors and perhaps unnamed others)[Footnote 19: According to the stated purpose in the DEIR, the SWP and potentially the CVP will experience increased exports as a result of the Project. We note that increased exports from other projects may also occur. Impacts from these major water projects are considered in FOR's comments to provide the most holistic analysis of potential project impacts.] will be more likely to invest in additional water storage in Northern California due to the perception of greater and more reliable transport capacity through the Delta. Put simply, investments in increased north-state reservoir capacity and diversions will be more attractive to export customers. This will also be true regarding non-SWP/CVP reservoirs. Land dedicated to reservoirs becomes denuded of natural vegetation and becomes a biological desert relative to historical ecology. Dams fragment ecosystems, block fish passage, and have major impacts on riparian habitat. Dam	Please see responses to comments 604-19 and 604-20 regarding the growth inducing analysis and water supply projects. The Delta Conveyance Project is not a reservoir project, nor would it indirectly induce a reservoir project to be constructed or operated. Therefore, the comment assertions regarding the potential impacts associated with reservoir projects are beyond the scope of the EIR and are not supported by the contents of the EIR.

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	operations alter flows in natural channels and can cause temperature changes that negatively impact native fish species, riparian vegetation, and on-river recreation. These impacts are consequential and reasonably foreseeable results of the Tunnel.	
604-27	A long history of developing Northern California water for Southern California supply As stated above, the DEIR is completely deaf to the history of California water. DWR is the CEQA lead agency on this project and its contractors are contemplated to be key beneficiaries of this project. DWR has also historically championed efforts to add concrete to every river in Northern California to export water southward.[Footnote 20: Bulletin No. 3, The California Water Plan, State of California, Department of Water Resources, Division of Resources Planning, May 1957. Access online [https://cawaterlibrary.net/document/bulletin-no-3-the-california-water-plan/].] Ignoring this history ignores a key liability to the public, and fails to disclose a multitude of potential Project impacts. FOR [Friends of the River] provides in these comments some important history to consider in the context of the Delta Tunnel. First, from the Department's 1957 California Water Plan: The California Aqueduct System would be unprecedented in its concept and scope. It would include many large dams, canals, tunnels, streamways, hydroelectric power plants, pumping plants, drainage ways, and other structures proposed to supplement existing water resource development works. It would ultimately develop nearly 22,000,000 acre-feet of surplus water each year, on the average, about half of which would be from the North Coastal Area and half from the	The majority of this comment is historical background information and does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. Information contained in the EIR (e.g., Chapter 1, Introduction) describes background and context of the Delta, the SWP and CVP, and the Delta Conveyance Project. The Delta Conveyance Project is an independent and separate project from the Peripheral Canal. Please refer to Chapter 1, Introduction, regarding prior Delta Conveyance planning efforts. Please see responses to comments 604-3 through 604-9 regarding project beneficiaries, the scope of the project purpose and objectives statements for the purposes of CEQA, and proposed operations. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes.

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	Sacramento River Basin, and would transport this water to deficient areas to the south…. (p. 166) The Delta Division of the California Aqueduct System would accomplish the transfer of water across the Sacramento-San Joaquin Delta on its journey from northern areas of water surplus to central and southern areas of deficiency. It would be the "hub" of the California Aqueduct System, bringing together the surplus waters developed by the Klamath-Trinity, Eel River, and Sacramento Divisions, and lifting these waters from the southerly side of the Delta into major conduits for conveyance southward and westward. (p. 185) [Emphasis added]. Facilities of the Trans-Delta System would ultimately transfer some 18,333,000 acre-feet of water per season, on the average, across the Delta for conveyance to areas of deficiency in central and southern California and in the San Francisco Bay Area. The ultimate transfer across the Delta of water developed in the Sacramento River Basin would be accomplished by construction of an isolated canal and control structures…. (p. 186) A few years later, DWR updated the provisional Trans-Delta design with a fresh isolated canal design, the Peripheral Canal, to the SWP in a 60s-era effort to bypass the Delta. The canal was considered an essential part of its plan to achieve the SWP yield necessary to meet original contract demands. In fact, DWR was confident that a revised but downscaled series of river-to-reservoir conversions of North Coast rivers [Footnote 22: Klamath and Trinity River dam and reservoir maps, DWR Bulletin 3, The California Water Plan, Plate 5, May 1957. Access online [https://cawaterlibrary.net/wp-	

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	content/uploads/2019/11/Part-Two-B3-The_Califonia_Water_Plan-May_1957-reduced-size.pdf].] would ultimately produce five million acre-feet annually for "the areas of deficiency."[Footnote 23: Department of Water Resources, Bulletin 76, 1960, p.13. Access online [https://cawaterlibrary.net/document/bulletin-no-76-report-to-the-california-state-legislature-on-the-delta-water-facilities-as-an-integral-feature-of-the-state-water-resources-development-system/].] The Department's 1960s to 1980s north-coast river storage dam focus was on the Eel River, from which it hoped to annually yield 2 million acre-feet for the SWP. After the defeat of the Peripheral Canal in a statewide ballot measure in 1982, the department continued to recognize that extracting water from the Eel River across the Delta, absent an isolated facility, would lose "substantial" water. [Footnote 24: You also asked about the cost of getting Eel River water "to and through the Delta without the Peripheral Canal." Physical works required would include conveyance systems on lower Stony and Cache Creeks… channel improvements in the Southern Delta, and the additional pumping units at the Delta Pumping Plant. Costs of these measures are not readily available, but they would not be great in comparison to the $3.6 billion ($16.5 billion 2022 dollars24) of the entire [Eel River development] plan. The major "cost" of getting the added water through the Delta would be the additional Delta outflows required to allow it to be conveyed to the pumps. In effect, part of the new water would have to be devoted to Delta outflows so that the remainder could be pumped. The percentage of Eel Project water that could be pumped is a function of how the project would operate and the Delta quality standards to be met…. For	

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	now, all we can say is that a "substantial" amount of the Eel Project yield would be lost in crossing the Delta via existing channels." Memo of Albert Dolcini, Chief DWR Northern District, to Gerald Meral, Deputy Director, DWR, January 26, 1978, p. 2-3. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_25.pdf]. For a detailed read on the Eel River planning effort and the political reaction to it, see The River Stops Here, Saving Round Valley, A Pivotal Chapter in California's Water Wars, by Ted Simon, University of California Press, 1994, 2000, and 2001.] Then and now, isolated facilities in the Delta improve the functional and economic feasibility of existing and contemplated north of Delta dams —something that today's Tunnel necessarily shares with its predecessors. If the Tunnel project is to claim that it does not, durable assurances to protect affected or potentially affected rivers must accompany the proposal. Yet none are proposed. The Eel River, along with many other north coast rivers, were added to the state wild & scenic river system in 1973. However, such protections could be removed by a vote of the legislature and approval by the Governor. In response to concerns that the legislature's approval of the peripheral canal in 1980 might result in the loss of California's wild & scenic rivers, voters passed Proposition 8, establishing a two-thirds-vote hurdle to divert and store water in the system for export into other hydrological basins if the Peripheral Canal is built. The expense of the canal and the higher hurdle to remove state wild & scenic river protections for the Eel and other north-coast rivers prompted Tulare Basin water interests [Footnote 25: "Bitterness Runs Deep in California Battle over	

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	Bringing More Water South," Philip Shabecoff, Special to the New York Times, Published: February 27, 1982. Access online [http://www.nytimes.com/1982/02/27/us/bitterness-runs-deep-in-california-battle-over-bringing-more-water-south.html].] to finance the 1982 Proposition 9 referendum campaign on SB 200. That bill directed DWR to construct the Peripheral Canal and authorized construction of other major facilities in the SWP. Proposition 9 was ultimately successful and SB 200 was repealed in 1982, along with the previously described additional protections for California's wild & scenic rivers that had been joined with it. It should not escape notice that the Department is not proposing similar additional state constitutional hurdles for the state's protected rivers as part of the tunnel DCP project, its reiteration of the Peripheral Canal. The need for such protection has not disappeared. Although more than 30 years had passed since the referendum, Tulare County has still not forgotten that the state Wild and Scenic Rivers Act constrains opportunities to increase SWP yield. The Tulare County Board of Supervisors wrote the following to the legislature in 2013: "The legislature should revisit Wild and Scenic Rivers status of the North Coast waters, where nearly one-third of California's water supply flows to the ocean, when there is such a demonstrated need to put available resources to their highest and best use." [Footnote 26: Sups: Without storage, no on bond, Board says more water storage needed to protect agriculture," Porterville Recorder, July 24, 2014. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/p	

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	rograms/bay_delta/california_waterfix/exhibits/docs/FOTR/for_29.pdf].]	
604-28	[Exhibit 1: Map of proposed North Coast reservoirs that would be foreclosed by the State Wild and Scenic Rivers Act of 1972. [Footnote 21: Map of proposed North Coast Reservoirs, California Committee of Two Million, 1972.]	The commenter provided this exhibit for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
604-29	[Exhibit 2: Use of Delta Water Supplies from 1900-2020 as published by DWR in 1960.]	The commenter provided this exhibit for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
604-30	Although Eel River dams and diversions could produce water for export (at the sacrifice of the river), they would not be the likely first storage project consequential to the DCP. In former DWR Director David Kennedy's report to the legislature on the Eel in 1985 (at that time required under the state Wild and Scenic Rivers Act) he noted: "Engineering studies over the last few years have disclosed alternative developments that may be more cost effective than Eel River development... reservoir developments in the Central Valley, including offstream storage south of the Delta, may be more practical than development of the Eel River. It is also recognized that ground water storage will play a larger role in meeting dry period needs than previously assumed. Also, based on what is known today, enlarging Shasta Dam appears more cost effective than Eel River development." However, he did wish to keep DWR's options open: "It is important to note that, while potential cost-effective alternatives to the Eel River have been identified, no program of alternatives has been accepted which would preclude the possibility of the eventual need for the Eel River as a feature of	The majority of this comment is historical background information and does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. Please see responses to comments 604-19 and 604-20 regarding the growth inducement analysis and water supply projects. The Delta Conveyance Project is not a reservoir project, nor would it indirectly induce a reservoir project to be constructed or operated. Therefore, the comment assertions regarding the potential impacts associated with reservoir projects are beyond the scope of the EIR and are not supported by the contents of the EIR. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the scope of analysis and the analysis of the Delta Conveyance Project as a whole within the EIR, pursuant to CEQA. Please also see Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project (SWP) or Central Valley Project (CVP) operations upstream of the proposed north Delta intakes. As

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	the SWP." [Footnote 27: Letter to legislative committee chairs from Dave Kennedy, DWR Director, August 30, 1985, p. 5-6. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_29.pdf].] At that time, DWR was focused on tributaries on the west side of the Sacramento Valley and the Glenn Reservoir complex,[Footnote 28: SB 200, the 1980 Peripheral Canal authorization authorized the large Glenn Reservoir Complex, the water rights for had been applied for as state filings in 1978. (§11255 (g)) The modern Sites Reservoir Authority has applied for an assignment of these water rights. Notably, for purposes here, SB 200 also would have provided state authority for the Sites Reservoir as a CVP facility. (§11255 (h)) SB 200, as described was repealed by referendum in 1982.] and raising Shasta Dam.[Footnote 29: SB 200, the Peripheral Canal authorization legislation, would have also authorized the Department to participate in investigations to enlarge Shasta Reservoir or other reservoirs for joint use by the SWP and CVP.] Decades later, DWR produced an administrative draft EIR for Sites Reservoir, [Footnote 30: "Preliminary Administrative Draft EIR/EIS, North-of-the-Delta Offstream Storage Project," California Department of Water Resources, US Department of Interior, Bureau of Reclamation, 2013. Access online [https://www.friendsoftheriver.org/wp-content/uploads/2022/12/00-ES-Executive_Summary_prelim_admin_draft_Dec2013_w_table.pdf].] a project that is expressly intended to export water to south-of-Delta customers. However, it languished waiting for a local sponsor to buy-in to complete its preparation.	discussed in Chapter 18, Aesthetics and Visual Resources, no new structures are proposed upstream of the Delta or in the SWP and CVP export service areas under any of the project alternatives; therefore, construction of the project would not result in visual changes to the landscape upstream of the Delta or in the SWP and CVP export service areas and there is no potential to cause a significant impact on the visual character of areas upstream of the Delta, so these effects are not discussed further in the chapter. Given all of the above, the wild and scenic designations in rivers upstream of the north Delta intakes are not discussed. Furthermore, this comment regarding the Eel River is beyond the scope of the Delta Conveyance Project. The comment references past considerations on the Eel River. There are currently no documented activities for the Eel River, nor were there at the time of release of the NOP for Delta Conveyance Project. There would be no effect on the Eel River or wild and scenic river designations within that basin as a result of construction or operation of Delta Conveyance Project. Finally, the Sites Reservoir Project is included on the cumulative project list in Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, and is included in the cumulative analysis in each of the resources chapters as appropriate. The Sites Reservoir Project is an independent project, being pursued by an independent agency. Public trust resources are under the authority of agencies such as the California Department of Fish and Wildlife or the State Water Resources Control Board. Those agencies have permitting authorities over Sites Reservoir and will exercise their permitting authorities and consideration of public trust resources accordingly and as appropriate for that project.

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	Sponsorship came from the Sites Project Authority, an independent actor (non-SWP, non-CVP), which picked up where DWR left off. It expects to submit its petition for assignment of state filings for the state's proposed SWP Glenn Reservoir complex early in 2023. [Footnote 31: See Sites Project Authority website: https://sitesproject.org/.] The majority of Sites's contemplated customers are SWP contractors in southern California.[Footnote 32: At this point, Sites Reservoir project partners are committing a share of the planning expenses in order to have a proportionate share of reservoir capacity, something that project partners expect will translate into a proportionate share of water that the capacity might develop. (Personal communication, Sites Project Authority). See also, "California drought resurrects decades-old plan for controversial Sites Reservoir," Louis Sahagun, Los Angeles Times, May 31, 2022. Access online [https://www.latimes.com/environment/story/2022-05-31/drought-resurrects-plan-for-controversial-reservoir].] But as much as things change, they remain the same: The proposed 1.5 million acre-foot Sites Reservoir is not attractive to the key export interests without a facility to move water around the Delta. According to Metropolitan Water District of Southern California (MWD) General Manager Jeffrey Kightlinger: "Sites Reservoir from the MWD perspective looks like a good sound project. The problem is, for us, it's north of the Delta. And right now, we can't move water through the Delta because we were so restricted in our ability to move water, that it wouldn't provide any real benefits to anyone south of the Delta... I say well, the problem is I don't know why I would fund it unless I could get some of that water and I can't actually get	

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	the water unless we build a conveyance system."[Footnote 33: "A conversation with Jeffrey Kightlinger," Maven's Notebook, July 31, 2016. Access online[https://mavensnotebook.com/2016/07/31/a-conversation-about-water-with-jeffrey-kightlinger/].] [Emphasis added]. MWD is apparently willing to fund part of the costs of environmental review to preserve a spot in the line of Sites beneficiaries, however. [Footnote 34: "Big LA water agency antes up for a share of Valley's Sites Reservoir," Sacramento Bee, April 11, 2017. Access online [http://www.sacbee.com/news/state/california/water-and-drought/article143994694.html].] In other words, to be operationally viable, this project needs the Tunnel constructed. Sites Reservoir physically cannot deliver water to its investors without it. This is an example of independent actors planning a project contingent on greater export capacity through the Delta. Sites Reservoir will have site-specific impacts as well as operational impacts from disrupting flow regimes and river resources. The DEIR ignores these likely impacts by improperly narrowing its scope, segmenting the project, and ignoring "growth-inducing" properties of the Tunnel project. These impacts must be analyzed in the DEIR. Public trust resources on the Sacramento River will likely be affected by construction and operation of Sites dam complex, reservoir, and diversion facilities. [Footnote 35: For a summary of the Sites Reservoir Project and public trust resources that may be affected, see this Fact Sheet	

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	[https://www.friendsoftheriver.org/wp-content/uploads/2019/02/Sites-Fact-Sheet-2-15-2017-rev.pdf] prepared by Friends of the River and Sacramento River Preservation]. Sites is proposed as a tool to operate in coordination with other complete and proposed projects tributary to the Sacramento River and Delta. To the extent that Sites and the Delta Tunnel may coordinate operations with Shasta Dam, for which a dam raise project has been proposed and awaits a decision at the federal level, DWR must also consider these pressures as part of its responsibility under the state Wild and Scenic Rivers Act (more on Shasta Dam Raise and wild and scenic responsibilities below). As noted throughout these comments, these are not the only existing or contemplated projects that propose to use export facilities to sell water south of the Delta.	
604-31	The Delta Conveyance Project will expressly endanger rivers protected by the Wild and Scenic Acts in California: As noted earlier, the proposed Delta Conveyance Project does not include any additional safeguards to prevent rivers protected by Wild & Scenic Rivers Acts from being unprotected and dammed due to increased conveyance capacity through the Delta. Instead, the proposed project and scope for environmental analysis relies on current conditions and legal obligations, which ignores the historical context from whence the DCP came. An isolated facility to convey water supply through the Delta has long wetted the appetites of export interests, even to the extent that such interests have sought to repeal protections embedded in the state's Wild and Scenic Rivers Act, or have	Please see response to comment 604-30 regarding areas and rivers upstream of the proposed north Delta intakes and Wild and Scenic designations.

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	attempted to pre-empt the Act through federal law.[Footnote 36: Federal wild and scenic river protections, once described as permanent protections, overlap state protection on the north-coast rivers and the lower American River. Protections for federally protected rivers have twice been the subject of successful “de-designations” by the House of Representatives (Merced River, CA). See (1) California Wild and Scenic Rivers Memo [https://www.friendsoftheriver.org/wp-content/uploads/2022/11/FOR-CAWSRs-memo-rev-Nov-18-2022.pdf], Stork and Evans, p. 12-14, and (2) Merced River Wild and Scenic Fact Sheet [https://www.friendsoftheriver.org/wp-content/uploads/2018/09/Merced-R-ws-threat-fact-sheet-5-9-15-2018.pd], Friends of the River, 2018. In response, in 2018 the legislature in provided the California Natural Resources Secretary the authority to add national wild & scenic rivers in California the authority to add rivers threatened by adverse Congressional or Administrative actions to the state wild & scenic rivers system. This authority sunsets in 2025. (AB 2975) The DCP draft EIR does not propose to make a recommendation to make this authority permanent.] The following excerpt serves as a reminder of the purpose of this body of California law: "It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. The Legislature declares that such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution. (Public Resources Code § 5093.50)" [Emphasis	

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	added]. We have already discussed two threats to California's protected rivers: (1) former DWR Director Dave Kennedy's 1985 assertion that California's protected north coast rivers may be DWR's future object of desire, and (2) Tulare Basin interest's involvement in the repeal of Proposition 8 and the County's contemporary desire to un-protect north coast rivers. However, there are more immediate potential threats to protected rivers, which would be exacerbated by increased conveyance capacity through the Delta.	
604-32	McCloud River: Shasta Dam Raise: Raising Shasta Dam is illegal because it would permanently drown a reach of the McCloud River protected under the California Wild and Scenic Rivers Act. [Footnote 37: "Supplemental Comments on Revised Proposed Regulations for the California Water Commission's Water Storage Investment Program Quantification Regulations," Friends of the River et al., October 3, 2016, p. 5-10. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_38.pdf].] To circumvent this legal protection, the MWD Board of Directors voted in 2012 to support "administrative/legislative actions to remove existing prohibition for state funding to raise Shasta Dam." [Footnote 38: Bacher, Dan, "MWD votes to support Shasta Dam raise," Fish Sniffer, December 13, 2012. Access online [http://www.friendsoftheriver.org/wp-content/uploads/2018/03/FOR_39-MWD-votes-to-go-against-McCloud-Riv-protection.pdf].] Presumably, this means MWD supports efforts to remove protections for the McCloud River	Please see response to comment 604-30 regarding areas and rivers upstream of the proposed north Delta intakes and Wild and Scenic designation. Furthermore, this comment does not raise a significant environmental issue associated with the Delta Conveyance Project and it is beyond the scope of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	under the California Wild & Scenic Rivers Act provisions in the Public Resources Code - so that it could participate as a project beneficiary of Reclamation's CVP Shasta Dam Raise. As has been noted before (and likely by many other commenters in this proceeding), MWD is a major water contractor of DWR, and SWP urban customers have been identified as potential buyers of Shasta Dam Raise water exports by Reclamation despite the SWP being outside of the CVP service area. [Footnote 39: "Summary of Chapter Nine Shasta Lake Water Resources Investigation (SLWRI) Final Feasibility Report and Environmental Impact Statement (EIS)," Friends of the River, Planning and Conservation League, Winnemem Wintu Tribe, May 10, 2016, p. 3-4. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_40.pdf].] Others, have decided to ignore the Act. Westlands Water District (WWD), located in Fresno and King Counties (and a whopping 340+ miles south of Shasta Reservoir), has also been an interested party in the Shasta Dam Raise. Westlands is a CVP export contractor and the largest agricultural water district in the nation. WWD had agreements in principle to be the non-federal sponsor of Reclamation's proposed reservoir expansion and was attempting to undertake an EIR for the project when the California Attorney General and environmental groups sued and blocked the EIR as a violation of the California Wild & Scenic Rivers Act. [Footnote 40: "The Facts about Raising Shasta Dam," Friends of the River, Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for	

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	_43.pdf].] In response, the general manager of the District opined in the press that it would do a study to determine that expanding the reservoir would not have an adverse effect on the free-flowing status of the portion of the McCloud River to be inundated by the reservoir expansion. [Footnote 41: "Westlands backs off Shasta Dam environmental permitting work," Debra Kahan, Politico, September 30, 2019. Access online [https://www.friendsoftheriver.org/wp-content/uploads/2019/10/Westlands-drops-EIR-will-do-CA-WSRA-analysis-Politico-9-30-2019.pdf].] Westlands has even anted up and bought up some land along the shores of the McCloud River - land that is being held by the District to become part of the expanded reservoir. [Footnote 42: Arthur, Damon, "McCloud River takes central role in dam-raising proposal," Record Searchlight, June 19, 2013. Appendix 15. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_41.pdf].] Earlier, however, according to a press account, the then Westlands Deputy General Manager Jason Peltier stated that raising Shasta Dam wouldn't be a high priority for the District until a major roadblock is removed to send freshwater south: the Delta. [Footnote 43: "Tunnel Vision Part Two: Rivers in Peril," Robert Gammon and Joaquin Palomino, East Bay Express, p. 6. Access online [https://eastbayexpress.com/tunnel-vision-part-two-rivers-in-peril-1/].] Ignoring issues of legality and challenging state authority, Reclamation has an ongoing planning effort to expand Shasta Reservoir over a reach of the McCloud River protected by the California Wild & Scenic Rivers Act. In 2014 and 2015, it	

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	completed its Final Environmental Impact Statement (EIS) and Feasibility Report determining (1) that expanding the reservoir was indeed in conflict with state law and (2) its preferred alternative (although no project "recommendation" was made). [Footnote 44: "Summary of Chapter Nine SLWRI Feasibility Report and EIS" FOR et al.] In 2020, Reclamation completed a supplemental EIS that concluded that the reservoir expansion was exempt from the California Wild and Scenic Rivers Act and, further, that it had no obligation to examine whether state law prohibited the expansion of the reservoir. [Footnote 45: Reclamation's conclusions are, of course, incorrect. The reservoir expansion provisions are not exempt from the California Wild & Scenic Rivers Act. Neither is Reclamation exempt under federal law from the provisions of this state law. For a thorough discussion and rebuttal to Reclamation's conclusions, see our comments on Chapters 1 & 5 of Reclamation's draft supplemental EIS here [https://www.friendsoftheriver.org/wp-content/uploads/2021/02/FOR-et-al-SLWRI-DSEIS-comments.pdf].] Seemingly unaware of Reclamation's circa-2015 unresolved concerns, legal difficulties of potential non-federal cosponsors, and the illegality of the project under state and federal law, members of Congress continue to push for federal funds for and/or federal authorization of the Shasta Reservoir expansion. In 2017 Rep. Newhouse introduced HR 875 to "streamline" Reclamation's water projects. The bill explicitly authorized the Shasta Dam Raise Project. [Footnote 46: Bureau of Reclamation Water Streamlining Act, H.R. 875, 115th Cong. February 6, 2017. Access online [https://www.congress.gov/bill/115th-	

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	congress/house-bill/875].] The bill stalled after introduction. Just this year Rep. Valadao introduced HR 9084, affectionately titled the WATER Act, to supersede some of California's water laws for the benefit of State Water Project and Central Valley Project contractors. This bill specifically seeks to secure funding for the Shasta Dam Raise project. [Footnote 47: WATER for California Act, H.R. 9084, 117th Cong. September 29, 2022. Access online [https://www.congress.gov/bill/117th-congress/house-bill/9084?s=1&r=6].],[Footnote 48: "Congressman Valadao Introduces Sweeping California Water Legislation," Office of U.S. Congressman David G. Valadao, September 29, 2022. Access online [https://valadao.house.gov/news/documentsingle.aspx?DocumentID=446].] This means DWR's consideration of the consequences and impacts of the DCP are even more important under its broad state Wild and Scenic Rivers Act responsibilities. [Footnote 49: there is no footnote content in the original PDF file submitted for comment]. These responsibilities are found in three sections of the Act. Two sections are important for rivers in the state wild & scenic river system: (1) PRC §5093.50 It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. The Legislature declares that such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use	

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	of water within the meaning of Section 2 of Article X of the California Constitution. (2) PRC §5093.61 All departments and agencies of the state shall exercise their powers granted under any other provision of law in a manner that protects the free-flowing state of each component of the system and the extraordinary values for which each component was included in the system. For the McCloud River, provision 1 applies, as well as the following special provisions of the Act: PRC §5093.542(d) All state agencies exercising powers under any other provision of law with respect to the protection and restoration of fishery resources shall continue to exercise those powers in a manner to protect and enhance the fishery of those segments designated in subdivision (b). PRC §5093.542(c): Except for participation by the Department of Water Resources in studies involving the technical and economic feasibility of enlargement of Shasta Dam, no department or agency of the state shall assist or cooperate with, whether by loan, grant, license, or otherwise, any agency of the federal, state, or local government in the planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition of the McCloud River, or on its wild trout fishery. As demonstrated by the Westlands' CEQA litigation, some of these responsibilities extend to EIR preparation. While the DCP does not directly include dams and diversions on rivers protected by the California Wild & Scenic Rivers Act, its	

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	1960sera predecessors have included them (see subsequent discussion). There is some irony there since both the Department historically and its SWP contractors even currently, have concluded that isolated/canal/tunnel facilities are required, in practice, to further exploit north-coast and north-state rivers, including rivers protected by the Act. Yet there is no discussion in the DCP draft EIR of these impacts - or how to mitigate this increased vulnerability.	
604-33	Lower American River: CVP Operations CVP operations already directly affect the Lower American River (LAR), which is a State wild and scenic river. Releases from CVP dams affect flows, temperature, habitat, and recreation in the LAR. Using models created by DWR and Reclamation, WaterFix participants demonstrated that a point-of-diversion change associated with previous Delta conveyance facilities (WaterFix) would adversely impact LAR resources. DCP modeling assumptions may under represent the impact of the point-of-diversion change on CVP operations, indicating adverse impacts to fish and wildlife, and their associated recreation impacts, such as angling success. [Footnote 50: WaterFix hearings Part 1, Closing Brief of City of Folsom, SSWD, and SJWD, p, 11-17.] After all, the purpose of the DCP is to reduce the Delta bottleneck that inhibits access to north-state water resources. Public Resources Code section 5093.1 requires that "[a]ll departments and agencies of the state shall exercise their powers granted under any other provision of law in a manner that protects the free-flowing state of each component of the system and the extraordinary values for which each component was included in the system." The Lower American	This comment is comparing the Bay Delta Conservation Plan/California WaterFix project with the Delta Conveyance Project. These two projects are separate independent projects, and DWR no longer pursuing the Bay Delta Conservation Plan/California WaterFix project. DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project and responded accordingly below. The purpose and objectives of the Delta Conveyance Project are clearly stated in Chapter 2, Purpose and Objectives, in the section titled Project Purpose and Objectives (to restore and protect the reliability of SWP water deliveries and, potentially, CVP water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner). Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project's operations, which do not include changes to State Water Project or Central Valley Project operations upstream of the proposed north Delta intakes. Furthermore, the section titled Project Area and Study Areas in Chapter 1, Introduction, describes the geographic limits of the study area for resources analyzed in the EIR. As shown in the Chapter 1 figure titled Upstream Facilities—American River System (CVP facilities), the American River is located upstream of the geographic limits of the study area. Finally, see Common Response 1, CEQA Process, General Approach to Analysis, and

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	River Parkway Plan, adopted by the California Legislature, is the state wild and scenic river management plan for the LAR. It identified the wild and scenic river corridor (the LAR Parkway) and the extraordinary values as anadromous fishery and recreation. [Footnote 51: "County of Sacramento, Lower American River Parkway Plan 2008," County of Sacramento Municipal Services Agency, Planning and Community Development Department. See wild and scenic river provisions. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_22.pdf].] The plan also discusses goals and means to achieve river flows consistent with plan objectives. [Footnote 52: Ibid, see water and flood elements of the Plan. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_23.pdf].] The Department of Water Resources, in accordance with CEQA, must analyze impacts from the DCP on rivers tributary to the Project. However, it also must consider such impacts under its state Wild and Scenic Rivers Act responsibilities. Protecting state wild and scenic rivers is clearly in the public interest and an affirmative responsibility of state agencies and even political subdivisions of the state. Mitigations were proposed in the Water Fix hearings by American River parties. We are not aware that any meaningful and durable assurances have been proposed within the DCP draft EIR.	Other Environmental Review Issues, regarding the selection of the study areas for resources analyzed in Chapters 5–32 and areas upstream of the project (including the American River). See also Common Response 9, Hydrologic Modeling and Approach, regarding the modeled representation of upstream effects.

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604-34	American River: Auburn Dam: The Auburn Dam is another project that would likely become more attractive to Southern California water interests if operational constraints to transport through the Delta were minimized. The 2-million acre-foot capacity Auburn reservoir, proposed on the American River, lost its state water rights in 2009. The Bureau of Land Management has found the Auburn Dam Project lands to be eligible for a National Recreation Area designation, [Footnote 53: Final NRA Study, American River Feasibility Study, USDOI, BLM, September 1990. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_45.pdf].] and Reclamation has determined that most Project lands are eligible for federal wild and scenic river designation.[Footnote 54: Determination of Wild and Scenic Eligibility of Segments of the American River (General Investigation Program), USBR, March 23, 1993.] Nevertheless, Congressional boosters have remained active. The Congressman who represents the Auburn dam area and champions the proposed dam formerly represented legislative districts in Southern California in the legislature.[Footnote 55: "Could dam plan be back? McClintock poised to lead Congress for Auburn Dam revival," Auburn Journal, December 12, 2020 and "Auburn Dam back in play as McClintock takes over House panel," Sacramento Bee, January 15, 2011. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_48.pdf].] The area's previous Congressman (who got his start in politics as an aid to Southern California State Senator H.L. Richardson), in an Association of California Water Agencies	This comment does not raise a significant environmental issue associated with the Delta Conveyance Project and it is beyond the scope of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. The Delta Conveyance Project is not a reservoir project, nor would it indirectly induce a reservoir project to be constructed or operated. Furthermore, Auburn Dam, as a water supply project, was deauthorized by Congress. Other proposed uses for flood control only purposes, as proposed by the U.S. Army Corps of Engineers and Sacramento Area Flood Control Agency, were not authorized by Congress.

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	meeting in Palm Springs, once offered Auburn dam water "to sweeten the Salton Sea." Quite a challenge in the absence of expanded conveyance to that part of the state. The author of SB 200, State Senator Ruben Ayala (D-Chino), in addition to his authorship of the bill to authorize the Peripheral Canal, regularly authored bills in the legislature to authorize the Auburn dam. If constructed, Auburn Dam would be upstream of the lower American River, which is a state wild and scenic river. The original project was federally authorized in 1965, and the project has not been deauthorized. [Footnote 56: To our knowledge, the Auburn Dam is not the only still unbuilt federally authorized 2-million acre-foot northstate Sierran dam. The proposed Marysville dam on the Yuba River is a U.S. Army Corps of Engineers project, currently inactive but still on the books. The current (1972) Corps of Engineers reservoir regulation manual for the state's second largest reservoir, the reservoir formed by Oroville Dam, for the most part assumes the existence of Marysville dam. The Department declined to participate in this project around 1976-77 because of concerns about the adverse effects the dam would have on the important Yuba River fisheries.] The Auburn dam facilities would have bypassed the lower American River. Facilities included a large canal beginning at Lake Natoma Reservoir, which would run south and join with a Sacramento River diversion at Hood. This canal would become the East-Side Canal, envisioned to parallel the state and federal canals travelling south from the Delta along the west side of the San Joaquin Valley. The Folsom-South Canal was the subject of federal litigation challenging the diversion on grounds of harm to the lower American River. [Footnote 57: NRDC, Save the	

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	American River Association, and the Environmental Defense Fund vs. Gilbert Stamm, et al.] Today, the Auburn dam is just one more proposed north state project waiting for customers in the south state to find it worth their while to finance it. And once again, the Delta bottleneck is an obstacle, just as it was in Senator Ayala's day, forty years ago.	
604-35	Area of Origin Law Will Not Protect North State Public Trust Water Uses The U.S. Bureau of Reclamation's (Reclamation) Central Valley Project (CVP) contractors routinely face some degree of shortage. Reclamation's shortage policies govern, to a considerable extent, the allocation of waters under the CVP purview. In recent years, the Tehama-Colusa Canal Authority argued in federal court that state area-of-origin statutes [Footnote 58: The "Area of Origin statutes" apply to the federal Central Valley Project and the State Water Project. See "Laws Protecting Areas of Origin," Porter A. Towner, Chief Counsel, Department of Water Resources, the Resources Agency, State of California, p. 4-5. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_9.pdf]. Significant quote: "In the construction and operation by the department of any project under the provisions of this part a watershed or area wherein water originates, or an area immediately adjacent thereto which can conveniently be supplied with water therefrom, shall not be deprived by the department directly or indirectly of the prior right to all the water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. DWR has operated the SWP in compliance with all water codes and in accordance with the California water rights priority system and would continue to do so with the operation of the Delta Conveyance Project. Please also refer to Common Response 3, Alternatives Development and Description, regarding proposed operations. The Common Response explains that proposed operations do not include modifications to State Water Project reservoir operations upstream of the project. DWR would not increase storage withdrawal for exports, except flood releases, even though the proposed Delta Conveyance Project may provide additional diversion capacity. The project does not include modifications to Central Valley Project reservoir operations upstream of the project because Reclamation is not a participant in the project. Temporary Urgency Change Petitions (TUCPs) are also discussed in Common Response 3 and, as explained therein, TUCPs are not part of the Delta Conveyance Project nor would the project result in TUCPs.

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	property owners therein."] should have provided a preferential shortage policy to areas of origin against export uses. [Footnote 59: Tehama-Colusa Canal Authority v. U.S. Department of Interior (9th Cir. 2013) 721 F.3d 1088,1090. Access online [https://casetext.com/case/tehama-colusa-canal-auth-v-united-states-dept-of-the-interior].] Others have argued that these statutes should be interpreted to provide area of origin rights for public trust resources. [Footnote 60: "Area of Origin Protection: Our Fisheries and Other Public Trust Interests," 2010, Felix E. Smith, retired Field Supervisor of the California office of the U.S. Fish and Wildlife Service. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_10.pdf]. Of note, the Tehama appeals court took a narrow view of the applicability of the statutes and did not discuss a broad area-of-origin doctrine for fish and wildlife/public trust resources.] The trial court and the Ninth Circuit made clear that no such preference within the CVP was required. They affirmed Reclamation's discretion to provide shortage-provision contracts, north and south, to users within various contract classes, asserting that Reclamation's shortage policies need not be constrained by area-of-origin statutes. [Footnote 61: Tehama v. U.S. 1095-1097] This is and has been Reclamation's position, and is reflected in contracts. [Footnote 62: Tehama v. U.S. 1092-1093] Of significance to the DCP, the court did note that export water-service contractors usually bear the greater burden of shortages. [Footnote 63: Tehama v. U.S. 1089] This is by no means untypical, as can be seen in Reclamation's operations	Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.

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	forecasts, reports, and complaints by CVP south-of-delta contractors. [Footnote 64: For background on recent operations, see "Central Valley Project Operations: Background and Legislation" Charles V. Ster, and Pervaze A. Sheikh, Specialists in Natural Resources Policy, Congressional Research Service, April 26, 2017, p. 7-9. Access online [https://fas.org/sgp/crs/misc/R44456.pdf].] This can be accounted for to some degree by different contract types. However, the Tehama court here is referring to differences in deliveries among the same or similar classes of contract priorities due to facility/geographical realities described as "operational constraints" by the court. [Footnote 65: Tehama v. U.S. 1089] It is these operational constraints that the Delta Tunnel will reduce. Although the Tehama case did not involve the State Water Project, the principles would be similar, although a much greater portion of SWP contracts are south of the Delta than the CVP's. Operational experience demonstrates that this north-vs-south court-affirmed delivery discretion can have direct implications on public trust resources. Increased north state delivery reliability can mean higher reservoir levels and consequent better conditions for public trust resources, such as better temperatures and flows during critical months for priority fish stocks in some important years. In other words, operational constraints can tend to bottleneck water, leaving more in northstate reservoirs in some years. These operational constraints will be reduced or eliminated by the Delta Conveyance Project. This is especially critical for north-state rivers, because the proposed project does not include any new constraints on operational discretion of the State Water Project or the Central Valley Project.	

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	It is important to note that, with retained operational discretion, project operators can and likely will change operations to meet different objectives. Temporary change petitions, flow variances, and other forms of relaxed regulatory requirements will reasonably continue to occur if the DCP is constructed. Because DWR cannot assume how they will operate the system, nor can it assume that future operations will mirror past operations, it must analyze potential impacts of operational changes on northern California rivers as well as the Study Area.	
604-36	The SWP and CVP are incomplete projects, thus their ultimate project operations and water deliveries are uncertain. The DEIR asserts that SWP and CVP operations will not significantly change as a result of the DCP. According to Chapter 5 of the DEIR Executive summary, "Changes to surface water resources, by themselves, are not considered an impact of the project under CEQA, and are thus not evaluated as impacts in this chapter." [Footnote 66: DEIR, Executive Summary, p. ES-48.] This conclusion inherently cannot be true. First, the project purpose calls for changes in current operating conditions ("restoring deliveries"). Delivering more water will fundamentally result in operational changes that will be damaging to the environment, especially public trust resources in Northern California - an impact that must be analyzed and disclosed to the public.	The EIR evaluates surface water and water supply changes in Chapter 5, Surface Water, and Chapter 6, Water Supply, to disclose potential changes that could occur under the Delta Conveyance Project proposed project and alternatives operations. Surface water changes are not considered impacts under CEQA but are used to inform potential impacts that could occur from changes in stream flow magnitudes and timing and water surface elevations. CalSim 3 and DSM2 modeling, for example, are used to estimate potential impacts on Delta water quality and fish and aquatic resources. The project proposes new operational criteria for the proposed north Delta diversion facilities but would not modify current upstream reservoir operational criteria as presented in Chapter 3, Description of the Proposed Project and Alternatives. Please also refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project proposed operations. Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.

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604-37	The SWP and CVP are incomplete projects, thus their ultimate project operations and water deliveries are uncertain. The DEIR asserts that SWP and CVP operations will not significantly change as a result of the DCP. According to Chapter 5 of the DEIR Executive summary, "Changes to surface water resources, by themselves, are not considered an impact of the project under CEQA, and are thus not evaluated as impacts in this chapter." [Footnote 66: DEIR, Executive Summary, p. ES-48.] This conclusion inherently cannot be true. Second, the DEIR can't even confidently declare project beneficiaries. Whether the final project includes or does not include the CVP means that project impacts and footprint could more than double — an impact that must be analyzed and disclosed to the public.	Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project proposed operations, which do not include modifications to State Water Project reservoir operations upstream of the project. DWR would not increase storage withdrawal for exports, except flood releases, even though the Delta Conveyance Project may provide additional diversion capacity. The project would not include modifications to Central Valley Project reservoir operations upstream of the project because Reclamation is not a participant in the project. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the evaluation of water-dependent resources throughout the EIR. Please also refer to response to comment 604-36 regarding the evaluation of surface water in the EIR. As described in Chapter 5, Surface Water, long-term average monthly flows for the project and project alternatives are similar to existing conditions. Chapter 5 lists the environmental resource chapters where the potential impacts associated with changes in surface water are addressed, consistent with the discussion in Common Response 1. Please refer to Chapter 1, Introduction, subsection titled, Public Water Agencies/Project Beneficiaries, regarding the role of the public water agencies in the project's approval. As described in Chapter 4, Framework for the Environmental Analysis, the Bureau of Reclamation has not expressed interest in participating in the Delta Conveyance Project as project proponents, however potential direct and indirect impacts of CVP participation are evaluated under Alternatives 2a and 4a.
604-38	The SWP and CVP are incomplete projects, thus their ultimate project operations and water deliveries are uncertain. The DEIR asserts that SWP and CVP operations will not significantly change as a result of the DCP. According to	Please see responses to comments 604-9, 604-36, and 604-37 regarding the analysis of water-dependent resources and information provided in Chapter 5, Surface Water, and the proposed operations of the project. The comment assertion that DWR is attempting to do anything other than what is described as the project operations in Chapter 3, Description of the

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	Chapter 5 of the DEIR Executive summary, "Changes to surface water resources, by themselves, are not considered an impact of the project under CEQA, and are thus not evaluated as impacts in this chapter." [Footnote 66: DEIR, Executive Summary, p. ES-48.] This conclusion inherently cannot be true. Third, SWP and CVP projects have "paper water" - water that is contracted for and cannot be delivered either due to operational constraints or supply constraints. The DCP is meant to transform paper water into wet water. The $15 billion dollar price tag is proof that this project is meant to further develop supply - an impact that must be analyzed and disclosed to the public.	Proposed Project and Alternatives, is a false, unsubstantiated claim. As described in multiple parts of the EIR, the project and the operational criteria are designed to comply with multiple regulatory requirements for water quality and fish protection during the diversion of excess flows in the Sacramento River (see Chapter 3, section titled Intake Operations and Maintenance; and see also Common Response 3, Alternatives Development and Description). The project, if approved, would be operated based on the proposed operational criteria and as permitted. The analyses provided in the EIR Chapters 7 - 32 evaluate the potential impacts of the proposed operations, as described in Chapter 3, and accurately represented by the CalSim 3 model, for all alternatives. The speculative operations presented by the comment are not proposed by DWR, nor would they be approved or allowed by regulatory agencies.
604-39	The SWP and CVP are incomplete projects, thus their ultimate project operations and water deliveries are uncertain. The DEIR asserts that SWP and CVP operations will not significantly change as a result of the DCP. According to Chapter 5 of the DEIR Executive summary, "Changes to surface water resources, by themselves, are not considered an impact of the project under CEQA, and are thus not evaluated as impacts in this chapter." [Footnote 66: DEIR, Executive Summary, p. ES-48.] This conclusion inherently cannot be true. Lastly, it is a known fact that SWP and CVP projects are not in their final configuration. These projects have tangible plans and aspirations for growth in the coming years. As these projects grow and change, it will necessitate changes to	Please refer to response to comment 604-38 regarding project operations. The project, if approved, would be operated based on the proposed operational criteria and as permitted. The SWP and CVP must operate to permit requirements, water quality standards, and other regulatory requirements described throughout the EIR as part of baseline conditions. Water deliveries are made based on hydrologic water years, water rights, contracts, and operation to permits, water quality standards, and other regulatory requirements as described throughout the EIR (e.g., Chapters 5, Surface Water; 6, Water Supply; and Appendix 5A, Modeling Technical Appendix, 5A-B, Hydrology and Systems Operations Modeling). Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approach to analyzing water dependent resources. The EIR evaluated reasonably foreseeable actions under both the No Project Alternative and the cumulative impact analysis throughout the resource chapters. Appendix 3C, Defining Existing Conditions, No Project Alternative,

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	operations. That the DCP will not impact or be impacted by these changes is a naïve and uninformed assumption. These known and predictable changes must be analyzed and disclosed to the public. The last two points are discussed in greater detail below.	and Cumulative Impact Conditions, documents the criteria used to identify projects under the No Project Alternative or the cumulative impact analysis and then provides a list of those projects.
604-40	SWP and CVP project exports are routinely less than contracts and water rights The SWP and CVP each have some proportion of paper water — rights to water that can't actually be appropriated and delivered due to operational constraints or drought conditions. Project beneficiaries hope that the Delta Tunnel can reduce regulatory constraints on project operations within their existing water rights permits. Their contractors have made clear their hope that this will increase diversions from SWP and CVP reservoirs. Without anything but a change in conveyance, paper water in the system would become "wet" water. Since additional exports are often releases from storage, SWP and CVP project operators will have more discretion to decrease north-state reservoir storage — again with adverse implications on cold-water pools, downstream fisheries, and recreation both in and below reservoirs.	Please see responses to comments 604-37 and 604-38 regarding the proposed operations for the project, which do not include modifications to State Water Project or Central Valley Project reservoir operations upstream of the project. Appendix 5A, Modeling Technical Appendix, provides a description of the modeled representation of baseline existing conditions, which includes an accurate representation of existing water rights and contracts as well as water demand. Existing conditions include current operations under numerous water year types, including normal, and wet years, which are captured in the hydrological modeling, and discussed in detail in Appendix 5A. Please see Common Response 9, Hydrologic Modeling and Approach, regarding the appropriate use of CalSim 3 as the hydrologic model and the modeled representation of baseline existing conditions and the project alternatives.
604-41	SWP and CVP project exports and operations are uncertain because the projects are not in their final forms Both the SWP and the CVP have unmet demand in their project areas. The SWP has contracts for somewhere north of four million acre-feet in its service areas with a significant shortfall in deliveries due to lack of water availability. [Footnote 67: "State Water Project Supply," Dierdre Des Jardins, California	CEQA requires that the whole of a project be analyzed compared to existing environmental conditions at the time of the Notice of Preparation. In this case, the Delta Conveyance Project is defined as diversion and conveyance facilities in the Delta as described in Chapter 3, Description of the Proposed Project and Alternatives. Chapter 3 describes that the project will be integrated into the larger SWP system as it is currently defined. The potential for future projects such as Los Banos Grandes and Sites Reservoir and other projects to be implemented does not necessitate expanding the

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	Water Research. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_15.pdf].] In addition to the desire to ramp up exports to meet unmet contract obligations, the SWP is an incomplete project, with a major south-of-Delta storage project, the 1.73 million acre-foot Los Banos Grandes reservoir, authorized [Footnote 68: 2013 California Water Code - Division 6. Conservation, Development, and Utilization of State Water Resources Part 3. Central Valley Project, Chapter 2. Description of the Project, Article 9.2, Los Banos Grandes Reservoir. Access online [https://law.justia.com/codes/california/2013/code-wat/division-6/part-3/chapter-2/article-9.2/].] but unconstructed. Los Banos Grandes is unmodeled by the DCP. It is reasonable to conclude, then, that this additional major project in the SWP would alter its operation. Impacts of such reasonably foreseeable changes must be analyzed in the DCP DEIR. The SWP is also listed as a customer or project beneficiary in the draft Sites Reservoir project/environmental feasibility reviews. And, it or its contractors are listed by Reclamation as a project customer or beneficiary in the final environmental/feasibility document for the Shasta Dam Raise. [Footnote 69: SLWRI Feasibility Report, p. 4-30, Table 4.4.] Growing unmet demand paired with these potential projects in advanced planning stages suggest that the SWP will become a significantly larger operation than current DCP modeling suggests. As a reminder, excess unmet demand is located	scope of Delta Conveyance Project because these are distinct projects separate from the Delta Conveyance Project that are subject to separate environmental review. The EIR does disclose the cumulative impacts of the Delta Conveyance Project in combination with other cumulative projects that could result in additive impacts on the physical environment. Please refer to Chapters 7-32 for these cumulative impact analyses. Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, provides a list of cumulative projects considered for various resource topics in the cumulative impact analyses. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for discussion of CEQA requirements for defining a project and the EIR approach to cumulative impact analyses. Please see responses to comments 604-37 and 604-38 regarding the proposed operations for the project. Please see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources.

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	largely in the SWP service areas south of the Delta. This demand paired with the aforementioned new facilities, then coupled with some degree of operational discretion suggest that the Delta Conveyance Project could likely be a conduit to the loss of and harm to public trust resources in Northern California rivers and reservoirs. Impacts of such reasonably foreseeable changes must be analyzed in the DCP DEIR.	
604-42	Although Reclamation's CVP appears to be a complete project, Reclamation is an interested party in the Delta Conveyance Project because it would aid in delivery of CVP project waters to the Delta pumps according to the Coordinated Operating Agreement. Reclamation also cautioned the State Water Resources Control Board (SWRCB or "Board") in 2009 that, preparatory to licensing its water rights, it could not determine final project demand and diversions: "Reclamation has further determined that it is not possible at this time to accurately predict future operations and diversion levels at specific times [...] Major uncertainties that include possible future [Board] actions involving additional conditions to CVP permits, outcome of the Bay-Delta Conservation Program (BDCP) process, as well as any other future actions necessary for compliance with the Federal Endangered Species Act, frustrate any attempt to make such predictions at this time. As a result, Reclamation is unable to determine what the ultimate diversions under its CVP permits will be."[Emphasis added]. [Footnote 70: "Protest of the California Sportfishing Protection Alliance, Extension of Time of Bureau of Reclamation's CVP permits," October 31, 2009. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for	DWR has fully considered the public trust doctrine. The EIR addresses the public trust doctrine in Chapter 33, Other CEQA-Required Analyses. Please also see Common Response 17, Public Trust, regarding the EIR's analysis of public trust resources. The Delta Conveyance Project has also been designed to reduce impacts on fish, wildlife, and other natural resources through use of a conveyance tunnel and other features to avoid physical impacts on the environment. Although the Delta Conveyance Project is proposed to improve SWP water supply reliability, its implementation would not necessitate or require other water resources projects to be implemented. Should future SWP or CVP water supply infrastructure be proposed in the future they would be required to comply with CEQA, NEPA, and other applicable permits and regulations, including consideration of the public trust doctrine. As described in Common Response 4, No Project Alternative Description and Analysis, and Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, the analysis in the EIR assumes that in the absence of the Delta Conveyance Project, participating water agencies would seek to improve local water supply reliability by implementing new water infrastructure projects and water conservation and demand management programs. As explained in Common Response 4 and in analyses of the No Project Alternative in the EIR resource chapters, the No Project Alternative analysis is intended to provide decision makers with information about the environmental impacts that could occur in the

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	_17.pdf].] In response, Reclamation noted the following: "Reclamation also envisions that prior to 2030, it may be necessary to request [...] adjustments in order to conform the authorized CVP places of use to match water use demands anticipated to exist at the time of build-out, but that would be met with no changes in permitted diversion quantities, permitted diversion rates, or contract totals. Reclamation would prefer having any necessary place-of-use adjustments completed prior to licensing, and to have been serving water accordingly, rather than going to license sooner and for authorized places of use that may not reflect demands existing under the CVP contractors' future built-out conditions." [Emphasis added]. [Footnote 71: "Reclamation's Response to Protest," USBR Mid Pacific Region, May 10, 2010, p. 2-3. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_18.pdf].] However, the CVP is fully constructed in order to divert and beneficially use water under the subject permitted applications.[Footnote 72: Ibid, p. 2] Reclamation has also completed a Draft Feasibility Study and Draft Environmental Impact Statement for the Temperance Flat Dam on the San Joaquin River - a dam that, if constructed, would be the second tallest dam in California and add more than a million acre-feet to storage capacity to the CVP. Although the success of this dam is speculative as it would be	future if a project is not approved. The San Luis Reservoir Expansion Project B.F. Sisk Dam Safety of Dams Modification Project was included in the No Project Alternative. The San Luis dam raise (identified in Appendix 3C as B.F. Sisk Dam Raise and Reservoir Expansion Project) was only included in the cumulative impact analysis because Congressional funding and approval of the project did not occur until after the Delta Conveyance Project Notice of Preparation. The Temperance Flat Reservoir project was not approved at the time of publication of the Notice of Preparation and was not included in the No Project Alternative. The Temperance Flat Reservoir project would not be expected to directly affect resources in the Delta Conveyance Project study area and is not analyzed under cumulative projects. Although both the Sites Reservoir Project and Delta Conveyance Project are water-related projects currently under environmental review, they have different lead agencies and involve different parties. The two projects serve different purposes (storage versus diversion), can be implemented independently, and neither is a reasonably foreseeable consequence of the other. The proposed Sites Reservoir project, which is subject to its own EIR, has not been approved by the Sites Reservoir Authority. For the purposes of the Delta Conveyance Project EIR, the Sites Reservoir Project is included on the cumulative project list and potential impacts associated with implementing both the Delta Conveyance Project and the Sites Reservoir Project are qualitatively evaluated in the cumulative analysis discussions provided in Chapters 7-32 where applicable. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding CEQA "project list" requirements and how cumulative impacts are evaluated for each resource in Chapters 7-32. Please also refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the Delta Conveyance Project's relationship to the California Water Resilience Portfolio.

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	built on a fully appropriated river,[Footnote 73: "Temperance Flat Dam Fact Sheet," Friends of the River, February 5, 2021. Access online [https://www.friendsoftheriver.org/wp-content/uploads/2021/02/TFD-referenced-fact-sheet-Feb-5-2021.pdf].], [Footnote 74: Letter from Katherine Mrowka, SWRCB, to Robert Colella, USBR, August 7, 2014. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_20.pdf].] it has powerful backers in the Republican (soon-to-be majority) party of the House of Representatives. [Footnote 75: "McCarthy Celebrates Important Step Forward for Temperance Flat," Mojave Desert News, August 18, 2017. Appendix 34. Access online [http://www.desertnews.com/news/article_5f9e7f22-842f-11e7-af4b-27dbcf24dcec.html]. Congressman Kevin McCarthy released the following statement in April 2017 regarding the San Joaquin Valley Water Infrastructure Authority's (SJVWIA) grant application for the Upper San Joaquin Valley Water Storage Project (Temperance Flat): Years of drought have demonstrated the vital need for additional water storage. This past winter delivered historic rainfall and snowpack to the Valley and the Sierras [sic]. With additional water storage capacity, Californians could have stored more water for the inevitable dry seasons to come. That's why storage projects, such as the Temperance Flat proposal, are crucial to California's continued growth. I commend the SJVWIA on its efforts to expand our state's water capacity, and I congratulate the Authority on successfully submitting a grant application for California Proposition 1A water infrastructure funding. This is a critical first step to build the Temperance Flat Reservoir which will store an additional 1.26 million acre-feet of water for use from Stockton to Bakersfield.] Reclamation envisioned that the	

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	SWP may be a customer of the project. And, as has been discussed earlier, Reclamation also has a Final Feasibility Study, EIS, supplemental FEIS, and a preferred configuration for the 750,000 acrefoot Shasta Dam and Reservoir Expansion Project. It also has a Draft EIR/EIS in partnership with the Sites Project Authority for the proposed 1.8 million acre-foot Sites Reservoir, [Footnote 76: See joint press release: "Offstream Storage Project in Northern California Takes Critical Step Forward Submittal of Application to the California Water Commission for Prop 1 Funds and Release of Draft Environmental Review Documents," Sites Project Authority and USBR, August 14, 2017. Access online [https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/FOTR/for_21.pdf].] both projects with uncertain beneficiaries and therefore operational plans. The San Luis and Delta-Mendota Water Authority is working on converting the seismic upgrade project to the joint-use B.F. Sisk Dam into a 130,000 acre-foot reservoir expansion project. It is thus a bit difficult to reconcile Reclamation's characterization to the Board in 2010 that it is fully constructed with these rather large potential changes to the CVP. But it doesn't stop there. The San Joaquin Valley Blueprint is a plan developed largely by the Friant Unit of the CVP as a supply-side solution to the groundwater mining in the southern San Joaquin Valley. It envisions increased Delta export capacity via an enlarged Delta-Mendota Canal, and the Mid-Valley Canal [Footnote 77: Notably, for purposes here, the Mid-Valley Canal, which would take water delivered from the Delta by the Delta- Mendota Canal, was to be authorized along with the Peripheral Canal in SB 200. (§11255(k))] to deliver water to the	

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	Friant Unit. Additional canals could journey east from the state's California Aqueduct to Friant Unit and the Cross Canal might be enlarged. The Blueprint would add an additional 2 million acre-feet to Delta pumping [Footnote 78: "Water Blueprint for the San Joaquin Valley," Scott Hamilton, Power Point Presentation given to the California Water Commission, November 2020. Access online [https://www.friendsoftheriver.org/wp-content/uploads/2022/12/November-2020-Water-Blueprint-for-the-San-Joaquin-Valley-PowerPoint-to-CWC-excerpts.pdf]. - water that would have to be conveyed to the Delta and through the Delta. And, as always, there is more. The Governor's Water Resiliency Portfolio calls for a consolidation of the place of use of the comparatively water rich CVP and the comparatively water poor SWP. This proposed consolidation is yet another great enabler in the scheme to extract water from north-state resources to export to southstate special interests. In summary, it is not possible to assume that the CVP and SWP have reached their final physical or operational configurations; nor are they meeting their existing and future contract demands. Contracts and water rights do not appear to be limiting the thirst of SWP and CVP contractors. The Delta Conveyance Project will directly affect operation of these projects, and remove operational constraints which historically have helped support public trust water resources in Northern California. The fate of some public trust resources impacted by alleviation of operational constraints in the Delta must be examined closely in the DEIR.	

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604-43	Conclusion Plumbing is destiny. The Delta Tunnel is the heir to the Trans-Delta System (part of the CA Aqueduct in the CA Water Plan), the Peripheral Canal, and California WaterFix - all of which were plumbing projects conceived to export more water south of the Delta. The Tunnel is but another attempt to enable additional exports, which would place greater demand on California rivers. Concrete plans already exist to meet this demand: the numerous dam and export projects described throughout these comments which are ongoing or could be resurrected. Thus, the Tunnel project is bigger than it seems. The Delta Conveyance Project is the key that will unlock California rivers for these projects. It will remove a major physical barrier to exporting water, and in many, if not every case, the largest financial barrier to building more dams and export projects. "Upstream" projects are inextricably linked, to one another, and to Delta conveyance.	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. Please see Common Response 3, Alternatives Development and Description, regarding project operations. Please see Chapter 2, Purpose and Project Objectives, regarding the project's purpose and objectives. The Delta Conveyance Project is not a reservoir project, nor would it indirectly induce a reservoir project to be constructed or operated. Please see responses to comments 604-26, 604-30, 604-31, 604-32 and 604-39, regarding responses related to other projects identified by letter 604.
604-44	The Tunnel is a project of statewide significance, with likely and resounding impacts on water supply - statewide. This DEIR has reduced the scope of environmental analyses such that it doesn't even consider impacts outside of SWP and CVP infrastructure and service areas. The scope simply does not consider the big picture and does not capture the true range of impacts this project will have on our state. This narrowed DEIR scope is flawed and conceals real and reasonably foreseeable impacts of the Tunnel from the public and decisionmakers. In fact, the DEIR fails to properly frame this this project for the	The comment summarizes multiple points made in comments 604-26 through 604-43, please see those comments for detailed responses. Regarding the scope and analysis of the EIR, please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the approach to the impact analysis and the study areas for resource impact analysis, which were tailored to resources depending on impact mechanism, and did not include upstream areas. Please also see Common Response 17, Public Trust, regarding public trust considerations.

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	public. We offer an analogy of a simple garden hose to illustrate this point: The DEIR has analyzed a hose which will move water from the north to the south. It looks closely at specific characteristics of the hose: diameter, length, connection points, material, even color. The DEIR doesn't, however, analyze how the hose will be used relative to the system. It does not consider the important and relevant historical context which produced a desire for the hose, and which will inevitably cause further damming of California rivers and their precious public trust resources. By narrowing the project scope and thereby failing to consider or analyze broader impacts to rivers, the DEIR failed to provide mitigation and assurances for North State rivers and public trust resources. We urge the Department of Water Resources to withdraw this DEIR and recirculate a new draft after correcting the numerous deficiencies.	Please also see Common Response 3, Alternatives Development and Description, regarding operations criteria and upstream operations and storage. Please also see Common Response 1 regarding recirculation and the legal requirements for recirculation, which the EIR does not meet.
605-1	On behalf of Construction Industry Coalition on Water Quality (CICWQ), we are writing in strong support of moving forward with the state's environmental review and planning process for the single-tunnel Delta conveyance project, our best source of reliable, high-quality and affordable water. The DEIR scope and depth is expansive and should be moved forward to the Final EIR stage so that project development may begin. In addition, we want to take this opportunity to support the Metropolitan Water District of Southern California's effort to support the DEIR process, as reflected in their General Manager's comments submitted to you and the Department of Water Resources on December 1, 2022. Metropolitan's tradition of leadership and strong stewardship starts with good planning.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general support for the project. This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	Continued investment in the environmental review and planning process for an updated Delta conveyance system ensures this process, which is essential for future decision-making, moves forward in a timely fashion and avoids further costly delays for this critically important project.	
605-2	Nearly one-third of Southern California's water supply comes from the Sierra Nevada. This resource provides the backbone water supply for about 29 million people statewide, millions of acres of farmland, Southern California's $1.6 trillion economy and our environment. Modernizing the aging system that delivers this water is vitally important. It will help ensure we are better prepared for the effects of climate change and earthquakes and bring greater resilience to the Delta waterways and its ecosystem.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general support for the project and the project's purpose and objectives. This comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
605-3	This is not an either/or situation; it is a both/and situation. Southern California is working diligently to reduce its reliance on the Delta. The Delta conveyance project is one of many steps we must take to ensure the region's water resiliency. Southern California is doing its part – actively diversifying its portfolio by developing local projects and investing in water efficiency. Still, the success of these local projects, including recycling projects, depends on a reliable supply of the higher quality water from Northern California.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general support for the project.
605-4	Governor Newsom's Water Resilience Portfolio prioritizes a one-tunnel Delta conveyance system as essential to ensuring reliable water for generations to come. We continue to support efforts that advance this project because Southern California depends on the reliability the proposed Delta conveyance project will provide. With our largest and most affordable supply at risk, we urge you to act now, ensuring the project continues to move forward. Thank you for your consideration.	Please see response to comment 605-3 regarding comments that state opinions of general support for the project.

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629-1	The following blog post [see ATT 1] is submitted by reference for the CEQA record, as is the attached report, entitled, "Evaluation of Climate Change Scenarios used for the Delta Conveyance Project Draft EIR (DCP DEIR)." Delta tunnel EIR shows predictable megaproject management biases – California Water Research (cah2oresearch.com) [hyperlink: https://cah2oresearch.com/2022/07/27/delta-tunnel-eir-shows-predictable-megaproject-management-biases/]	The commenter provided this attachment for reference purposes in support of their comments. Responses to the comments in the attachment are provided in responses to comments 629-20 through 629-26. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science in the EIR and Common Response 6, Climate Resilience and Adaptation, for a discussion of climate change scenarios described and evaluated in the EIR.
629-2	Evaluation of Climate Change Scenarios used for the Delta Conveyance Project Draft EIR (DCP DEIR) From 2012 to 2015, the California Department of Water Resources (DWR) convened an advisory group of "Hydrologists, academicians, modelers, planners, lawyers and practitioners", called the Climate Change Technical Advisory Group (CCTAG) (Wang et al. 2016). The group included several leading climate scientists, as well as several climate scientists from DWR. The recommendations of the CCTAG were published in a 2015 report (Climate Change Technical Advisory Group et al. 2015), hereafter "CCTAG report." The section of the DCP DEIR on Climate Change Scenarios Development (Appendix 5A-B, Section B-3), cites the recommendations of the CCTAG on page B-2: The 20 CMIP5 global climate projections were selected by DWR CCTAG as the most appropriate 10 projections for California water resources evaluation and planning (California Department of Water Resources Climate Change Technical Advisory Group 2015) (Table 5A-B4.1.).	Please see Common Response 9, Hydrologic Modeling and Approach, regarding best available tools, modeled representation of future conditions and climate change, modeled representation of CEQA baseline existing condition, and climate change assumptions as input into the hydrologic model. The comment provides an opinion regarding the recommendations from the CCTAG with respect to future climate projections. However, the comment doesn't provide any information that changes the EIR analysis. As described in Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, this analysis documents that the proposed project impacts detailed in the EIR would remain similar under two alternate climate change and sea level rise assumptions at 2040.

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	The CCTAG report shows that DWR posed specific questions to the CCTAG. One of the questions was the following: Global Climate Model (GCM) Selection or Sampling. There are more than 60 global climate models (GCMs) currently used by the Intergovernmental Panel on Climate Change (IPCC) in its Fifth Assessment Report. The full suite of available climate simulations is too large to use for detailed water resource evaluations. Guidance is needed on how to reduce the number of simulations to a manageable total for State and local application. The CCTAG report recommended use of a set of 10 Global Climate Models, selected for producing "reasonably realistic simulations of global, regional, and California-specific climate features." But the CCTAG was not asked to evaluate DWR's use of the Central Tendency of the 10-model ensemble, nor did the CCTAG do so. The CCTAG report's key points included the following: Key Point 2.1: Using an ensemble or group of several simulations from different global climate models (GCMs) for planning studies is the current best practice (Knutti 2008; Barsugli et al. 2009; Brekke et al. 2008; Pierce et al. 2009; McSweeney et al. 2012) to consider the range and uncertainty of future climate projections. The CCTAG report specifically stated: Evidence has been shown that reducing the number of GCMs	

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	too severely will likely under-sample global and regional climate futures; a subset of 10 or more GCMs is needed to describe the rather wide distribution of possible climate variations and changes that could occur in future 10-year periods (e.g. Pierce et al 2009; McSweeney et al. 2012). With respect to emissions scenarios for the CMIP5 models, the CCTAG report stated: There are four standard RCPs: RCP2.6, RCP4.5, RCP6.5, and RCP8.5, which represent increases in end of century radiative forcings of +2.6, +4.5, +6.5, and +8.5 Watts per square meter (W/m2), respectively. The RCP 2.6 scenario is a relatively low greenhouse-gas emission scenario, while RCP 4.5, RCP 6.5, and RCP 8.5 appear as reasonable choices to represent low and high emissions scenarios, given current rates of global fossil fuel consumption and economic development. At the time when the CCTAG investigation began, the RCP 4.5 and RCP8.5 scenario simulations were available for most GCMs, while the RCP 2.6 and RCP 6.5 were not as commonly available. Thus, for this report, the investigation is confined to RCP4.5 and RCP 8.5. The CCTAG report did NOT recommend using the RCP 4.5 and RCP 8.5 high greenhouse gas scenarios with the 10 selected models and using only the mean or Central Tendency of the resulting 20 member ensemble. Doing so eliminates information about the range of climate projections. Of greatest concern is elimination of the higher warming and drying projections which have the highest climate risk for water supply and ecosystem impacts.	

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629-3	Appendix 5A-B, Section B-3 of the DCP DEIR goes on to state "This selection process is consistent with the Water Storage Investment Program (WSIP) Application…" However, a closer inspection shows that use of only the mean or Central Tendency is NOT consistent with the WSIP application, because it did not consider using a drier, warmer projection in addition to the Central Tendency projection.	The comment assertion is not consistent with the contents of the EIR. The statement made in Appendix 5A, Modeling Technical Appendix, Section B, Hydrology and Systems Operations Modeling, Attachment 4, Climate Change Development for Delta Conveyance Project, refers to the selection of 10 GCMs and 2 emission scenarios, which are consistent with the selection in the WSIP Application process. The comment doesn't provide any information that changes the EIR analysis. Please see response to comment 629-2 regarding information contained in Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections.
629-4	DWR's Central Tendency algorithm discards all GCM [global climate model] projections that are warmer than the 75th percentile ensemble projection, and colder than the 25th percentile, as all GCM projections that are drier than the 25th percentile projection, and wetter than the 75th percentile. The Central Tendency algorithm thus ends up using only a small fraction of the total range of models, clustered around the median projection, which is discussed in further detail below.	Please see responses to comments 629-2 and 629-3 regarding assumptions and information used in the climate change scenarios for the EIR.
629-5	To communicate the model pruning DCP DEIR should provide an example graph of the Central Tendency model projections. The one from the American River Basin Study (US Bureau of Reclamation 2022) is shown below. The model shows "hot-dry" and "warm-wet" projections, that were also used for the American River Basin Study to communicate the range of climate projections. The modeling for the Bay-Delta Conservation Plan also originally proposed to include both drier, warmer, and wetter scenarios. Appendix 5A-D, p. 33 of the Bay-Delta Conservation Plan DEIR stated that "[t]he selected approach for development of climate scenarios for the BDCP incorporates three fundamental elements. First, it relies on sampling of the ensemble of GCM [global climate model] projections rather	This comment suggests that the approach to climate change modeling in the Bay Delta Conservation Plan should be applied to the Delta Conveyance Project EIR. DWR is no longer pursuing the Bay Delta Conservation Plan/California WaterFix project. DWR has prepared the EIR based on the current Delta Conveyance Project description and the current requirements of CEQA at the time of the release of the Notice of Preparation. The modeling framework and supporting documentation in Appendix 5A, Modeling Technical Appendix, and Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, were developed for the current Delta Conveyance Project and are deemed adequate to support the EIR. As described in Appendix 30A, this analysis documents that the project impacts detailed in the EIR would remain similar under two alternate climate change and sea level rise assumptions at 2040. Please see Common Response 9, Hydrologic Modeling and Approach, regarding modeled representation of future conditions and

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	than one single realization or a handful of individual realizations. Second, it includes scenarios that both represent the range of projections as well as the central tendency of the projections." I testified in the WaterFix Water Rights Petition Hearing, "This would have been a reasonable approach to uncertainty about regional climate change projections if it was carried through to the final WaterFix modeling." Failing to provide model runs from drier, warming scenarios completely fails to provide necessary information about the range and uncertainty of climate impacts on precipitation and temperature. The Water Storage Investment Program Application also recommended evaluation under a wetter, moderate warming (WMW) scenario, and a drier extreme warming (DEW) scenario.	climate change and modeled representation of CEQA baseline existing conditions. The section titled Hydrology in Appendix 5A, Section B, Hydrology and Systems Operations Modeling, describes how climate data was used in the development of the CalSim 3 model.
629-6	[Exhibit 1: American River Basin Study Change in Annual Mean Temperature versus Change in Annual Mean Precipitation]	The commenter is providing this exhibit in support of their comments. Those comments are addressed in these responses to the commenter's letter.
629-7	The tables on the next page show some simple calculations based on the mean statewide precipitation change and mean statewide temperature change for the 20 CCTAG [Climate Change Technical Advisory Group] GCM [global climate model] / RCP model projections, which were obtained from Appendix A of the California Water Commission's Water Storage Investment Program Technical Appendix A on Climate Change and Sea Level Rise (California Water Commission 2016), Table A1, Projected Changes in Statewide Conditions for each Model and RCP Combination, Representing Climate Periods 2016 to 2045 and 2056 to 2085, with Respect to Reference Period 1981 to 2010.	This comment does not raise a significant environmental issue associated with the Delta Conveyance Project and/or is beyond the scope of the EIR. Specifically, the California Water Commission's Water Storage Investment program cited in the comment is independent and separate from the Delta Conveyance Project. The details of the climate change information identified in the comment are details that are incorporated into the Delta Conveyance Project EIR regarding the 2040 climate change. Please see responses to comments 629-2 and 629-3 regarding assumptions and information used in the climate change scenarios for the EIR.

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	Table 1 [see Exhibit 2] shows the mean statewide changes in precipitation for the 10 CCTAG GCM scenarios, when the forcing by RCP 4.5 and RCP 8.5 are considered separately, and together, as well as the medians and the 25th and 75th quantiles when forcing by RCP 4.5 and RCP 8.5 is considered separately, and together. Table 1 shows that the effects of pruning out models that are less than 25% quartile and greater than 75% quartile constrains the mean temperature change that is considered for the early term to 1.2-1.6°C and for the long term to 2.4-3.5 °C. This fails to adequately evaluate risk of higher climate sensitivity. Zeke Hausfather explained (Hausfather 2021): Were our emissions the only determinant of global warming, we would likely end up somewhere around 3ºC above preindustrial levels by 2100 in a current policy world, and 2.4ºC in a stated policy world. However, emissions are just one of three major uncertainties the world faces when projecting future warming; the other two are climate sensitivity [hyperlink: https://www.carbonbrief.org/explainer-how-scientists-estimate-climate-sensitivity] and carbon cycle feedbacks [hyperlink: https://www.carbonbrief.org/analysis-how-carbon-cycle-feedbacks-could-make-global-warming-worse]. Climate sensitivity refers to the amount of warming the world will experience as CO2 in the atmosphere increases; it is typically expressed using a simple metric of how much the world will warm over the long term if atmospheric concentrations of CO2 are doubled.	

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	Climate sensitivity has long been a "holy grail" of sorts for the climate science community but has been difficult to narrow down.	
629-8	[Exhibit 2: Climate Change Technical Advisory Group multimodel ensemble means, medians, and 25% and 75% quartiles]	The commenter is providing this exhibit in support of their comments. Those comments are addressed in these responses to the commenter's letter.
629-9	Some models in the most recent Sixth Coupled Model Intercomparison Project (CMIP6) show Equilibrium Climate Sensitivities (ECS) of over 5ºC. The ECS is much higher than models in the previous Fifth Coupled Model Intercomparison Project (CMIP5) that were used for the Delta Conveyance Project modeling. The IPCC's Sixth Assessment report (AR6) states that there is only medium confidence that the very high climate sensitivity projections are unrealistic. The causes of high climate sensitivity in CMIP6 models has been tied to low cloud feedbacks, and is an active area of current research. (Zelinka et al. 2020) (Lutsko et al. 2022) It has been almost two decades since David Randall et. al. observed that "A key factor limiting the reliability of simulations of anthropogenic climate change is the inability to accurately represent the various effects of clouds on climate. Despite the best efforts of the community, the problem has resisted solution for several decades." (Randall et al. 2003) Two years later, Mike Dettinger cited Randall and advised "we should not assume that large reductions of projection uncertainty will arrive in time to allow confident planning of responses to climate change." (Dettinger 2005). Seventeen years later, there remains significant uncertainty. Therefore it is important to evaluate high climate sensitivity projections when low probability but high-risk outcomes need	The modeling framework and supporting documentation in Appendix 5A, Modeling Technical Appendix, Section A, Modeling Overview, and Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, relevant to analysis of climate change were developed for the Delta Conveyance Project and is deemed adequate to support the EIR. The climate change projections used in the EIR relied on the CMIP RCP 8.5 model projections as recommended by the comment. Additional information concerning how climate change was treated in the hydrologic modeling conducted for the proposed project and alternatives is provided in Common Response 9, Hydrologic Modeling and Approach. Common Response 6, Climate Resilience and Adaptation, provides additional discussion regarding how climate change was assessed throughout the EIR.

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	to be evaluated. Using CMIP5 models driven by RCP 8.5 can be a proxy for using higher sensitivity models from CMIP6 with more realistic emissions scenarios.	
629-10	According to a journal publication by DWR climate scientists on the range of scenarios used in WSIP [Water Storage Investment Program] ((Feldman et al. 2021), the Water Commission selected a GCM [global climate model] that: exhibits extreme warming while also generally receiving less precipitation. The HadGEM2-ES model (Jones et al. 2011a) run with the RCP8.5 scenario was chosen as the GCM/RCP projection pair because this projection generally exhibits the combination of most warming and largest decrease in precipitation among the 20 GCM-RCP projection pairs in the ensemble chosen by CCTAG [Climate Change Technical Advisory Group] (2015). This model exhibits a high value of diagnosed ECS (4.69 K=2 × CO2) (Andrews et al. 2012) and has superior performance with respect to precipitation relative to historical observations over North America (Sheffield et al. 2013). An examination of the statewide mean projections for precipitation and temperature by the 10 CCTAG models for the RCP 4.5 and RCP 8.5 scenarios shows that the Central Tendency algorithm, when applied to the combined 20 model ensemble, can prune out not only the HADGEM2-ES model but all other models with higher ECS. Table 2 [see Exhibit 3] shows the projections of the 10 GCMs with RCP 8.5 forcing, for the early long term, with model projections sorted by temperature change, and models color coded where < 25% or > 75% quartiles of temperature or	This comment suggests that an alternative approach to identifying and selecting models that provide reliable simulations of anthropogenic climate change is necessary to adequately consider the range of potential climate impacts on the watershed. The comment mischaracterizes the development of the climate change scenarios analyzed in the EIR. The Central Tendency scenario is based on the ensemble of 20 GCM simulations of future conditions. The analysis does not 'prune out' any of these simulations and climate data used in subsequent watershed modeling (VIC modeling) considers the complete range of climate projected by the selected 20 GCMs. The modeling framework and supporting documentation in Appendix 5A, Modeling Technical Appendix, Section A, Modeling Overview, and Appendix 30 A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, relevant to analysis of climate change were developed for the Delta Conveyance Project and are deemed adequate to support the EIR. The sensitivity analysis in Appendix 30A evaluates project effects under different climate change and sea level rise scenarios that use different criteria for GCM selection. For the Median scenario, changes in precipitation and temperature are representative of results from the ensemble of GCMs rather than representing a bookend. As described in Appendix 30A, this analysis documents the proposed project impacts detailed in the EIR would remain similar under two alternate climate change and sea level rise assumptions at 2040.

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	precipitation 20 model ensemble. The Central Tendency algorithm will prune out all the color-coded model projections, leaving only two GCM projections from RCP 8.5, ACCESS 1.0 and CCSM4. Table 3 [see Exhibit 4] shows the projections of the 10 GCMs with RCP 8.5 forcing, for the late long term, with model projections sorted by temperature change, and models color coded where < 25% or > 75% quartiles of temperature or precipitation 20 model ensemble. The Central Tendency algorithm will prune out all the color-coded model projections, leaving only four GCM projections from RCP 8.5. This is simply too small a set of models to adequately consider the range of potential climate impacts on the watershed.	
629-11	[Exhibit 3: 2016-2045 Climate Change Technical Advisory Group Global Climate Model/RCP 8.5 projections]	The commenter is providing this exhibit in support of their comments. Those comments are addressed in these responses to the commenter's letter.
629-12	[Exhibit 4: 2056-2085 Climate Change Technical Advisory Group Global Climate Model/RCP 8.5 projections]	The commenter is providing this exhibit in support of their comments. Those comments are addressed in these responses to the commenter's letter.
629-13	Uncertainty in watershed drying Evaluation of warmer scenarios is important, because increased temperatures are affecting runoff efficiency during droughts. Using data from the California Data Exchange Center (CDEC) one can do a rough estimate of runoff efficiency in the Sacramento River basin by dividing the Sacramento Four River Unimpaired Flow by the 8 Station Precipitation. The Sacramento Four River Index estimates unimpaired flow in the Sacramento River and major tributaries -- Feather, Yuba, and American Rivers. The graph shows that 10 year average runoff efficiency is currently down to levels last seen at the end of the	The comment describes an independent analysis performed by the commenter to develop an estimate of runoff efficiency in the Sacramento River Basin, which has no bearing on the analysis of climate change presented in the Delta Conveyance Project EIR. CalSim 3 modeling of climate change scenarios indirectly accounts for changes in runoff efficiency by using the VIC hydrologic model to determine changes in runoff caused by changes in climate. As presented in Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, in the figure titled Projected Absolute Changes in Precipitation, Evapotranspiration, and Runoff for Major Watersheds in the Sacramento and San Joaquin River Basins for 2040 CT, Compared to Historical Reference Period (1995), VIC accounts for changes in evaporative demand

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	1929-1934 drought. There has been a major increase in reference evapotranspiration -- evaporative demand in the watershed. A recent study by Christine Albano et. al. at the Desert Research Institute used reanalysis data to estimate which includes humidity as well as temperature ((Albano et al. 2022) An analysis by (Avanzi et al. 2020) found a significant shift in observed unimpaired runoff in a Sierra Nevada watershed during droughts. Figure 4 [see Exhibit 6] from that publication is reproduced below under Creative Commons License 4.0.	from the land surface that impacts runoff from precipitation. The comment does not provide new information, raise a significant environmental issue relating to the proposed project, or address the adequacy, accuracy, or completeness of the EIR.
629-14	[Exhibit 5: Runoff Efficiency of Sacramento River Unimpaired Flow]	The commenter provided this exhibit for reference purposes in support of their comments. Those comments are addressed in these responses to the commenters letter.
629-15	[Exhibit 6: Precipitation-Runoff relationship for drought versus non-drought years of the Almanor, East Branch, and Feather River at Oroville basins]	The commenter provided this exhibit for reference purposes in support of their comments. Those comments are addressed in these responses to the commenters letter.
629-16	Uncertainty in precipitation The graph below [see Exhibit 7] from (Dettinger 2016) shows changes in the percent of historical mean total precipitation on the wettest 5% days, and the remaining days, between 1951–2000 and 2046–2095, under the 10 CCTAG [Climate Change Technical Advisory Group] climate models, forced with the RCP 8.5 scenario. There is a lot of uncertainty about the likelihood of increase in the wettest 5% days, which is completely disguised by using the Central Tendency projection.	Please see Common Response 9, Hydrologic Modeling and Approach, regarding best available tools, modeled representation of future conditions and climate change, modeled representation of CEQA baseline existing condition, and climate change assumptions as input into the hydrologic model. To clarify, Dettinger (2016) determined that California's largest storms provide a disproportionately large contribution to annual precipitation and year-to-year variability in annual precipitation. The comment suggests that the use of Central Tendency projection disguises the likelihood of increase in the wettest 5% days as a prediction of climate conditions. CalSim 3 uses a monthly timestep so the distinction between precipitation during the wettest 5% days and remaining days is less important in the hydrologic modeling. However, it appropriately captures the projected changes in the runoff on a monthly timestep. As described in Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, this analysis documents that a comparison of three

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		different climate change and sea level rise scenarios at 2040 do not differ from the other 2040 simulations analyzed in the EIR, or from each other. The effects of the proposed project are similar under three different climate and sea level rise scenarios, although the base operations under the No Project Alternative may differ.
629-17	[Exhibit 7: Changes in Percent of Historical Mean Total Precipitation on the Wettest 5% Days]	The commenter provided this exhibit for reference purposes in support of their comments. Those comments are addressed in these responses to the commenters letter.
629-18	The model uncertainties in increases or decreases in the wettest 5% days is related to uncertainties in representation of ocean/atmosphere feedbacks. With respect to the El Nino / Southern Oscillation (ENSO), the IPCC [Intergovernmental Panel on Climate Change] Fifth Assessment stated: There is high confidence that the multi-model statistics of monsoon and ENSO have improved since the AR4. However, this improvement does not occur in all models, and process-based analysis shows that biases remain in the background state and in the strength of associated feedbacks. In an attributing the 2014 drought to natural variability, (Seager et al. 2014) noted: The other point of faith in the model projections is that they correctly represent the radiatively-forced SST change. The long-term change seen in observations over the past few decades is associated with the second EOF mode of 200mb heights and also has a ridge at the west coast and drying ... In contrast to this pattern, the CMIP5 [Fifth Coupled Model Intercomparison Project] models have a quite uniform SST response to radiative forcing with a modest maximum in the central and eastern equatorial Pacific Ocean.	Please see Common Response 9, Hydrologic Modeling and Approach, regarding best available tools, modeled representation of future conditions and climate change, modeled representation of CEQA baseline existing condition, and climate change assumptions as input into the hydrologic model. As described in Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, this analysis documents the proposed project impacts detailed in the EIR would remain similar under two alternate climate change and sea level rise assumptions at 2040.

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	However, nature has deviated steadfastly from such an SST trend and, when looked at over even a century or more, the observed SST trend is towards an increased, not decreased, east-west gradient (Karnauskas et al. 2009)… One known feedback bias in the CMIP5 and CMIP6 [Sixth Coupled Model Intercomparison Project] models is in the Bjerknes feedback, a 2-3 month timescale feedback that is one of the key drivers of the El Nino / Southern Oscillation (Bjerknes 1969). The Bjerknes feedback is a nonlinear atmosphere-ocean feedback between the tropical zonal sea surface temperature gradient, zonal currents, trade winds, thermocline slope, and upwelling (Cravatte et al. 2016). The strength of the Bjerknes feedback was recently characterized by (Geng et al. 2022) as the amplitude of a nonlinear relationship between the first two principal components of the monthly sea surface temperatures. The authors found that the observed amplitude is around 0.25, larger than a majority CMIP5 and CMIP6 models and their average of 0.14. A 2022 paper by (Wills et al. 2022) also found that climate model large ensembles cannot reproduce the spatial pattern of sea surface temperatures we have seen since 1979. The authors hypothesize that the trend toward more La-Nina like conditions may be partly a response to climate forcing. Most existing climate models show this will eventually reverse to more El-Nino like conditions. The question is when. These known model biases point to the necessity of	

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	considering a range of climate model projections in evaluating potential future precipitation changes. The Central Tendency projection fails to do so.	
629-19	References Albano, C. M., J. T. Abatzoglou, D. J. McEvoy, J. L. Huntington, C. G. Morton, M. D. Dettinger, and T. J. Ott. 2022. "A Multidataset Assessment of Climatic Drivers and Uncertainties of Recent Trends in Evaporative Demand across the Continental United States." Journal of Hydrometeorology, 23 (4): 505–519. https://doi.org/10.1175/JHM-D-21-0163.1. Avanzi, F., J. Rungee, T. Maurer, R. Bales, Q. Ma, S. Glaser, and M. Conklin. 2020. "Climate elasticity of evapotranspiration shifts the water balance of Mediterranean climates during multi-year droughts." Hydrology and Earth System Sciences, 24 (9): 4317–4337. Copernicus GmbH. https://doi.org/10.5194/hess-24-4317-2020. Bjerknes, J. 1969. "ATMOSPHERIC TELECONNECTIONS FROM THE EQUATORIAL PACIFIC." Monthly Weather Review, 97 (3): 163–172. American Meteorological Society. https://doi.org/10.1175/1520-0493(1969)097<0163:ATFTEP>2.3.CO;2. California Water Commission. 2016. "Climate Change Projections for Water Storage Investment Program (WSIP) - Technical Reference Appendix A - Climate Change and Sea-Level Rise - California Open Data." Accessed December 16, 2022. https://data.ca.gov/dataset/climate-change-projections-for-water-storage-investmentprogram-wsip/resource/919f39d7-8626-4843-9c64-f105bba399f6. Climate Change Technical Advisory Group, D. of W. R., E. (Chair) Lynn, A. Schwarz, J. Anderson, M. Correa, and W. O'Daly. 2015. Perspectives and Guidance for Climate Change	The commenter provided this list for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. DWR has reviewed all comments and will consider all comments in its decision-making process.

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629-20	[ATT 1: California Water Research Blog Post titled "Delta tunnel EIR shows predictable megaproject management bias", dated July 27] Professor Brent Flyvbjerg is an internationally renowned expert in megaprojects. His research has shown how megaprojects are systematically subject to "survival of the unfittest." Flyvbjerg's 2021 paper, Top Ten Behavioral Biases in Project	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. Furthermore, this does not raise a significant environmental issue associated with the Delta Conveyance Project and/or is beyond the scope of the EIR and evaluating potentially significant environmental impacts.

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	Management: An Overview, describes several behavioral biases which are relevant to the Delta tunnel project. They include strategic misrepresentation, optimism bias, planning fallacy (writ large), and escalation of commitment. Flyvbjerg described them as follows [see ATT 1: Exhibit 1]:	
629-21	[ATT 1 Exhibit 1: Table of descriptions of behavioral biases according to Flyvbjerg and mentioned in comment 20.]	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. Furthermore, this does not raise a significant environmental issue associated with the Delta Conveyance Project and/or is beyond the scope of the EIR and evaluating potentially significant environmental impacts.
629-22	[ATT 1: California Water Research Blog Post titled "Delta tunnel EIR shows predictable megaproject management bias"] Strategic misrepresentation [see ATT 1 Exhibit 1] appears to be present in the Delta tunnel Environmental Impact Report analyses of climate change impacts, as well as planning fallacy (writ large) and escalation of commitment. Flyvbjerg explains why strategic misrepresentation is common in megaprojects: Imagine a scale for measuring political-organizational pressures, from weak to strong. At the lower end of the scale, one would expect optimism bias to have more explanatory power of outcomes relative to strategic misrepresentation... Big projects, whether in business or government, are typically at the upper end of the scale, with high political-organizational pressures and strategic misrepresentation.	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. Furthermore, this does not raise a significant environmental issue associated with the Delta Conveyance Project and/or is beyond the scope of the EIR and evaluating potentially significant environmental impacts.
629-23	[ATT 1:] One of the clearer examples of strategic misrepresentation [see ATT1 Exhibit 1] is the assertion in the Climate Change chapter that "intakes in the north Delta were found to not be vulnerable to future salinity intrusion conditions evaluated under the H++ scenario at year 2100 (10.2	The comment incorrectly suggests that analysis presented in Chapter 30, Climate Change, in the section titled Impacts of the Project Alternatives with Climate Change, is not consistent with one of the three overarching conclusions presented in the section titled Summary in Appendix 5A, Modeling Technical Appendix, Section F, Sea Level Rise and Delta Water

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	feet or 3.11 meters.)" (p. 30-23.) This statement is extremely misleading. Looking at the modeling technical appendix, one discovers that the hydrodynamic modeling of sea level rise did not address Delta levee failure or island flooding. Appendix 5A-F states: … there remains uncertainty over the degree of salinity intrusion for a specific sea level rise assumption because many issues that affect model results were not addressed in the Study, e.g., levee failure, changes in water use, continued dredging of the ship channels, changing morphology, island flooding, and potential landscape level defenses. The SCHISM model documentation shows that the mesh only represents existing Delta channels, and simply fails at simulating long-term Delta levee failure and island flooding: The SCHISM model is thus clearly extremely limited in modeling high sea level rise. DWR's failure to adequately model the performance of the North Delta intakes with high sea level rise and island flooding is long-standing. The Delta Independent Science Board's 2014 comments on the project stated: If the effects of major environmental disruptions such as climate change, sea-level rise, levee breaches, floods, and the like are not considered… one must [not] assume that the actions will have the stated outcomes.	Quality Modeling, as it relates to model limitations (e.g., levee failure, island flooding). The comment goes on to wrongly suggest that the refinement and application of the SCHISM model as described in the section titled SCHISM of Appendix 5A, Section F is not adequate to support the impact analysis presented in the Chapter 30 section titled Impacts of the Project Alternatives with Climate Change. As described in Common Response 9, Hydrologic Modeling and Approach, the modeling framework outlined in Appendix 5A regarding best available tools, modeled representation of future conditions and climate change, modeled representation of CEQA baseline existing condition, and climate change assumptions as input into the hydrologic model is adequate for the CEQA as documented in the EIR. The Introduction section of Appendix 5A, Section F describes how the SCHISM Sea Level Rise Study investigates how Delta water quality changes under seven sea level rise assumptions. The range of sea level rise increments considered span from 1.8 feet (ft) to 10.2 ft. The SCHISM assessment acknowledges the vulnerability of the central and western Delta to salinity intrusion caused by sea level rise and additional water may be required to meet current salinity requirements. In addition, the assessment bracketing approach of 1.8 ft to 10.2 ft of sea level rise confirmed that the proposed north Delta diversion intakes would not be vulnerable to salinity intrusions. The SCHSIM assessment also included a scenario where the salinity intrusion was encouraged artificially to simulate a "worst case" condition with 10.2 ft sea level rise. It also included significant addition of tidal prism compared to the current bathymetry. Under all the scenarios evaluated using SCHISM, the salinity at the proposed intakes remained fresh.

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629-24	[ATT 1 Exhibit 2: SCHISM model horizontal mesh near Franks Tract]	The commenter is providing this exhibit in support of their comments. Those comments are addressed in these responses to the commenter's letter.
629-25	[ATT 1:] In June of 2019, I met with the Delta Conveyance Design and Construction Authority (DCDCA) Director, Kathryn Mallon, and Engineering Design Manager, Phil Ryan and urged them to do new modeling of the intakes with high sea level rise. Information obtained from a Public Records Act request shows that Ryan and former WaterFix lead engineer Gwen Buccholz then re-evaluated the WaterFix intake locations between September and December of 2019. Their reviews appear to have been done before the new SCHISM modeling was completed. In January of 2020, Ryan told the DCDCA's Stakeholder Engagement Committee that the engineering team had reviewed possible intake sites and decided that the five sites selected for the WaterFix project were the best sites. In March of 2020, the Department of Water Resources began a consultation with the US Army Corps of Engineers on modification of the Sacramento River levees to construct the intakes. These early actions clearly resulted in escalation of commitment to the WaterFix North Delta intake locations, which then influenced what new modeling would be done. The result is that the benefits of the Delta Conveyance project as an adaptation to sea level rise are being overestimated, and the risks are being greatly underestimated. This is Flyvbjerg's planning fallacy (writ large.) [see ATT1 Exhibit 1].	Please see Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR. As noted in this Common Response, a number of siting criteria were considered for intake locations. Siting criteria for the intakes considered higher upstream surface water elevations related to sea level rise with respect to providing room at the site to locate the structures above the projected flood elevations. A more critical siting criteria was being able to operate at the lowest surface water elevations with adequate water depth above the screens. As described in Chapter 3, Description of the Proposed Project and Alternatives, in the section titled Design for Climate Change and Sea Level Rise, DWR utilized DSM2 modeling to provide the basis for design and siting all of the project features, including the intakes, would be constructed to remain operational with predicted climate change and sea level rise for Year 2100 in addition to projected flood event conditions and appropriate freeboard elevations. As noted in this section, Year 2100 was selected as the horizon year because there is increased uncertainty around projections beyond 2100, which would make using those projections beyond 2100 speculative. As described in the Intake Site Identification and Evaluation technical memorandum in the Final Draft Engineering Project Report for the Central and Eastern Options (Delta Conveyance Design and Construction Authority 2022), a wide range of intake sites were evaluated upstream and downstream of the selected sites evaluated in the EIR. The site evaluation did consider information from previous studies; however, the analysis was based upon updated geotechnical, bathymetric, intake screen technology, and siting criteria information. The EIR evaluated water quality conditions in the Delta, including near the intake locations, as described in Chapter 9, Water Quality, Chapter 30, Climate Change, and Appendix 4A,

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		Consideration of 2070 Conditions. Please refer to Common Response 6, Climate Resilience and Adaptation, regarding the project's anticipated water supply reliability benefits.
629-26	[ATT 1: California Water Research Blog Post titled "Delta tunnel EIR shows predictable megaproject management bias"] Further reading California Department of Water Resources. 2022a. Delta Conveyance Project Public Draft Environmental Impact Report, Chapter 30, Climate Change. July 2022. California Department of Water Resources. 2022b. Delta Conveyance Project Public Draft Environmental Impact Report, Appendix 5-AF Sea Level Rise and Delta Water Quality Modeling. July 2022. Delta Independent Science Board. 2014. Review of the Draft EIR/EIS for the Bay Delta Conservation Plan. May 15, 2014. Flyvbjerg, Bent. 2021. Top Ten Behavioral Biases in Project Management: An Overview." Project Management Journal, vol. 52, no. 6, pp. 531–546. Related blog posts: Delta ISB review of Delta tunnel project proceeding under huge time pressure. July 25, 2022. On the Delta Independent Science Board and Inconvenient Truths. April 19, 2021.	The commenter provided this attachment and list for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter.
630-1	Miwok culture and traditions critically depend on the survival of the salmon. As we fight for our fishing rights, we are simultaneously faced with the devastation that the DCP would wreak on the Tribal Cultural Landscape, through increasing toxic algae levels, and compromising fish runs. All alternatives result in the disturbance of cultural resources, including historic Tribal villages and mounds pre-dating European contact, which cannot be adequately mitigated once disturbed. Despite the full acknowledgement of the importance of the	DWR understands and recognizes that salmon are a key species for Tribes. DWR has consulted with Tribes and considered the impacts on salmon and other native fish species habitats as a character-defining feature of the Delta as a Tribal Cultural Landscape, as described in Chapter 32, Tribal Cultural Resources, Impact TCR-1. Although the analyses in Chapter 19, Cultural Resources, and Chapter 32, Tribal Cultural Resources, concludes that impacts on cultural resources and Tribal cultural resources, respectively, would be significant and

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	Delta TCL [Tribal Cultural Landscape] to Tribes, DWR insists on moving forward with the project. Tribes should not have to fight so hard to save their Tribal cultural resources, spiritual and ceremonial sites, and locations of creation stories from desecration by state projects.	unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. DWR will not make a decision on the project until after addressing public comments on the Draft EIR, certifying the Final EIR, making all necessary findings, and taking any other actions required to comply with CEQA. Please refer to Common Response 16 regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Please see Chapter 12, Fish and Aquatic Resources, for a detailed discussion of the proposed mitigation measures that would reduce impacts on salmon to less than significant. Please also see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, regarding compensatory mitigation including tidal habitat restoration to mitigate north Delta hydrodynamic effects on chinook salmon juveniles and channel margin habitat restoration for operations impacts on Chinook salmon juveniles. Chapter 9, Water Quality, addresses harmful algal blooms under Impact WQ-14, which concludes that the impact would be less than significant.
630-2	The Delta Conveyance project's ('DCP') draft EIR also failed to observe or address a few issues in their environmental analysis. As a result of overlooking various issues that relate to the project's potential impacts on the physical environment, the draft EIR's scope is inadequate, non-substantially engaging tribes, not respecting tribes who say "no" and its discussion about existing conditions is incomplete.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project, regarding the adequacy of the environmental baseline under CEQA, and regarding the scope of the analysis. Chapter 32, Tribal Cultural Resources, in the section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please also

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		refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources.
630-3	In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things. The DCP's draft EIR overlooks the impacts that the project would have on terrestrial biological resources. The EIR does this by using a scope that is limited to focusing on how the DCP will impact the region hydraulically and atmospherically (3-4, 13).	The EIR has been prepared in accordance with CEQA and adequately disclosed the potential, scope, severity, and magnitude of potential impacts for the environmental resources analyzed in Chapters 5 through 32. Please see Chapter 13, Terrestrial Biological Resources, regarding the project's construction and operation impacts on wildlife species and mitigation measures to reduce those impacts. As described in Chapter 13, all potential impacts analyzed would result in less-than-significant impacts with mitigation. Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the methodology and approach for evaluation of impacts on terrestrial biological resources.
630-4	In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things. The EIR's scope would be more realistic and complete if it addressed both the short-term and longterm impacts that the DCP would have on salmon and other fish species. By overlooking this aspect of the project, those who support the DCP were able to neglect the research and data collected about the local wildlife that would otherwise suggest that these wildlife populations need to be protected rather than worked around.	The Delta Conveyance Project EIR has been prepared in compliance with CEQA and evaluates the full range of potential impacts that may result from construction and operation of the proposed project and its alternatives. Please see Chapter 12, Fish and Aquatic Resources, for a detailed discussion of the proposed mitigation measures that would reduce impacts on salmon to less than significant. Please also see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, regarding compensatory mitigation including tidal habitat restoration to mitigate north Delta hydrodynamic effects on chinook salmon juveniles and channel margin habitat restoration for operations impacts on Chinook salmon juveniles. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science in the preparation of the analyses in the EIR.

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630-5	In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things. The University of California, Davis and the United Nations predict that due to climate change, spring run Chinook will not survive past 2099 in Central Valley, California waters. DEIR does not adequately assess impact to salmon and other fish species in addition to not adequately engaging with tribes in a meaningful and reciprocal manner.	Please see Chapter 12, Fish and Aquatic Resources, for a detailed discussion of the proposed mitigation measures that would reduce impacts on salmon to less than significant. Please also see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, regarding compensatory mitigation including tidal habitat restoration to mitigate north Delta hydrodynamic effects on chinook salmon juveniles and channel margin habitat restoration for operations impacts on Chinook salmon juveniles. Please also refer to Common Response 6, Climate Resilience and Adaptation, for more details about how the Delta Conveyance Project increases the resilience of the State Water Project to climate change, sea level rise, and a hotter, drier future. Please refer to responses to comments 630-1 and 630-2 regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources.
630-6	In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things. All alternatives result in far worse ecological conditions for native fish and wildlife; and reduced survival of juvenile Winter and Spring run salmon through the Delta.	Please see the response to comment 630-5 regarding impacts on salmon. Please also refer to response to comment 630-3 regarding the terrestrial biological resources analysis.
630-7	In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things. DCP would result in substantial cumulatively significant impact on the Delta Tribal Cultural Landscape (TCL) and Sacramento River TCL, toxic algae levels and fish runs.	Please refer to response to comment 630-1 regarding the EIR's analyses of Tribal cultural resources, harmful algal blooms, and fish and aquatic resources. Please also see Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. The EIR appropriately evaluates cumulative impacts on water quality, fish species, and Tribal cultural resources in Chapter 9, Water Quality, Chapter 12, Fish and Aquatic Resources, and Chapter 32, Tribal Cultural Resources,

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		respectively, and proposes mitigation measures for potentially significant environmental impacts, where appropriate.
630-8	Although the EIR does discuss some risks that the "noise and vibration" (19) pose for the local aquatic life, they offer a remedy that would mitigate the damage caused by noise and vibration. While this approach appears to resolve an issue, it does not fairly consider the risk of damage caused by the DCP's noises and vibrations. If the EIR had included research about the long-term effects that "ground disturbances and removal of habitat" will have on the ecosystem, then perhaps they would have found that the risks associated with the DCP outweigh the desired benefits that one hopes to achieve from the project.	The EIR evaluates environmental impacts and proposed mitigation measures regarding multiple environmental resources in the Delta, including noise in Chapter 24, Noise and Vibration. As described in Chapter 24, Noise and Vibration, the potential impacts analyzed, including construction noise, would result in less than significant impacts with mitigation. The EIR evaluates fish and wildlife in Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources, which propose mitigation to avoid and reduce impacts. As described in Chapter 12 and Chapter 13, all potential impacts analyzed would result in less-than-significant impacts with mitigation.
630-9	Cultural and ecological perpetuity are of critical importance to Indigenous Peoples, especially the Miwok communities in the Valley. Thank you for taking the time to read these comments and acting upon due diligence duties required regarding consultation with tribes in a meaningful way and preservation of the salmon of which so much depends.	Please refer to response to comment 630-1 regarding the fish and aquatic resources analysis as well as Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Please refer to response to comment 630-3 regarding the terrestrial biological resources analysis. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and will continue to consult with Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts.
630-10	ATT 1: Duplicate of the comment letter.	This attachment contains a copy of comments 630-1 through 630-9. Please refer to the responses to these comments.
686-1	This letter represents the public comments of the San Joaquin County Historical Society & Museum (SJCHSM) concerning the draft Environmental Impact Report (EIR) for the Delta Conveyance Project (DCP), as put forth by the Department of Water Resources (DWR). The Delta Conveyance Project will have significant and unavoidable impacts on the cultural landscape of the California Delta. On a number of grounds, the	Some of information in this comment describes the structure or organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. Chapter 19, Cultural Resources, describes significant and unavoidable impacts on cultural resources (e.g., eligible built-environment historical resources [Impact CUL-1] and identified archeological resources [Impact CUL-3]). As described in Chapter 19 and in

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	SJCHSM finds that the draft EIR is inadequate in its current state.	the detailed responses to comment letter 686, the EIR meets CEQA standards and requirements for evaluating cultural resources. Chapter 32, Tribal Cultural Resources, describes significant and unavoidable impacts on Tribal cultural resources (e.g., Impacts TCR-1 and TCR-2), including the Delta Tribal Cultural Landscape. As described in Chapter 32 and in the detailed responses to comment letter 686, Tribal cultural resources were identified by DWR using multiple lines of evidence and a robust methodology, including consultation with Tribes. Although the analyses conclude that impacts would be significant and unavoidable, mitigation measures have been identified to avoid and reduce effects where feasible. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding significant and unavoidable impacts and the authority of decision makers to approve projects through a statement of overriding considerations.
686-2	Considering the proposed project's probably consequences, the SJCHSM [San Joaquin County Historical Society and Museum] is mission-bound to express its utmost concern with methodological decisions employed by the DWR in its directives to its consulting partner, ICF. Specifically, the decision of the DWR to directs its consulting partner to avoid outreach to historical societies and museums with archival collections pertinent to the Delta on the grounds that such outreach was conducted in 2015 shows a malicious disregard for the history of this region. This decision significantly reduced the body of primary source documentation available to ICF concerning historic sites in the Delta pertaining to nationally significant communities of color.	Please refer to response to comment 686-6 regarding outreach to historical societies, cultural organizations, and local groups as well as the methodology used to collect information used in the cultural resources impact analysis. The comment assertion that DWR directed its consultants to avoid outreach to historical societies is false. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science in the EIR. Please see Chapter 19, Cultural Resources, for further discussion about the methodology for and approach to the impact analysis. Appendix 19A, Historical Resources Survey and Evaluation Report, provides more than 3,000 pages of documentation of the built-environmental historical resources found within the project study area.

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686-3	Regarding the draft EIR's discussion of impacts on historic resources, the SJCHSM [San Joaquin County Historical Society and Museum] is concerned with ambiguities present in the EIR's analysis of the DCP's probable impacts and potential mitigation measures on built cultural resources.	Please refer to Chapter 19, Cultural Resources, section titled Environmental Impacts, for details on how the EIR approaches potential impacts on historical resources, including methods for analysis, thresholds of significance, impacts, and proposed mitigation measures developed for each alternative. As stated in Chapter 19, an effect on historical resources would occur if the project would demolish or materially alter the qualities that justify the resource for inclusion or eligibility for inclusion in the CRHR. This section provides a full description of the different methods, data, and substantial evidence used to evaluate potential impacts. Based on the impacts disclosed in the chapter on historical built cultural resources, feasible mitigation measures are proposed where available to lessen the potentially significant impacts. The mitigation measures proposed provide standard and measurable metrics and performance standards to mitigate impacts on historical built cultural resources.
686-4	Furthermore, the draft EIR fails to consider the impacts of the DCP on nationally significant historic sites pertaining to indigenous and diaspora communities outside of the project's physical imprint, but still within the impact zone of the project.	Please refer to Chapter 19, Cultural Resources, section titled Study Area, for information on the areas of impact for built-environment resources (AI-BE) and archaeological resources (AI-A). All resources located within the areas of impact were considered in the analysis. Please refer to Chapter 32, Tribal Cultural Resources, section titled Study Area, for information on how the EIR defines the study area for Tribal cultural resources. All resources located within the study area were considered in the analysis. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the study areas evaluated in the EIR.
686-5	Given these methodological errors and ambiguities, the SJCHSM [San Joaquin County Historical Society and Museum] finds that the draft EIR is inadequate as it stands with regards	Detailed responses are provided in this table to letter 686 regarding the comments claiming methodological errors and ambiguities. As described in the responses contained herein, the Delta Conveyance EIR has been

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	to the DCP's impact on cultural resources.	prepared in compliance with CEQA and evaluates the full range of potential impacts on cultural resources that may result from construction, operation, and maintenance of the proposed project and its alternatives. DWR's analysis meets the CEQA requirement to make a good-faith effort at full disclosure and base the analyses on up-to-date and accurate information.
686-6	I. Methodology With regards to methodology, we feel that the DWR committed a meaningful systemic error in directing its consulting party, ICF, to not conduct outreach with local historical societies and museum. According to Appendix 19A, page 10 of the draft EIR, the DWR made this decision "because outreach has been conducted for past projects within the study area over the past 10 years." We find this rationale to be entirely illogical. Historical archives are dynamic in nature and can grow quickly due to a single gift of records. Since the California WaterFix EIR was drafted in 2014-2015, many local historical societies in the Delta and museums have greatly increased the size of their Delta-oriented collections. With respect to the SJCHSM, our collections concerning Delta cultural and economic life have expanded by upwards of 8,000 individual record listings since outreach was last conducted for the twin-tunnels project, circa 2015. Many of these records concern nationally significant collections of documents pertaining to Filipinx, Japanese, and Chinese diasporic communities that lived, worked, and recreated in the Delta's primary and secondary zones. Given that these collections showcase significant histories relating to built spaces within Delta, the SJCHSM [San Joaquin County Historical Society and Museum] feels that a grievous error was committed on the part of the DWR in directing ICF to not reach out to local historical agencies.	Outreach was conducted as described in Chapter 35, Public Involvement. Where the public offered substantive information during the scoping period, the comments were reviewed and incorporated as appropriate into the Draft EIR. For example, some commentors identified potential historical resources to be analyzed in the Draft EIR. If after analysis it was determined that the resource was within the AI-BE, this analysis was included in the EIR. The EIR incorporates previously completed outreach to local groups and experts by reference and includes sufficient research as a basis for identification of historical resources in the AI-BE, as summarized in Appendix 19A, Historical Resources Survey and Evaluation Report, section titled Methods. As described in Chapter 19, Cultural Resources, sufficient research was conducted using online and in-person repositories to identify historical resources within the AI-BE. Outreach conducted for the public comment period of the Draft EIR included targeted outreach to historic societies, cultural organizations, and local groups. Outreach to local historical societies and museums for research and historical resource identification is not mandated by CEQA.

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686-7	II. Analytical Concerns The DCP, if constructed, will have lasting consequences on the cultural heritage of the California Delta. We at the SJCHSM [San Joaquin County Historical Society and Museum], due to our mission to preserve and celebrate the histories of San Joaquin County, express our utmost concern concerning the draft EIR's Historical Resources Survey & Evaluation Report (Ch. 19) and analysis of Tribal Cultural Resources, due to several ambiguities present in its analysis and mitigation measures.	The Delta Conveyance EIR has been prepared in compliance with CEQA and evaluates the full range of potentially significant physical environmental impacts on cultural resources and Tribal cultural resources that may result from construction, operation, and maintenance of the proposed project and its alternatives in Chapter 19, Cultural Resources, and Chapter 32, Tribal Cultural Resources. Please refer to responses to comments 686-3 and 686-4 regarding the approach to impact evaluations, analysis of impacts on cultural resources, and approaches to mitigation measures to reduce, avoid, or minimize impacts where feasible. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Comments regarding the approval of projects with significant and unavoidable impacts are addressed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues.
686-8	First and foremost, the SJCHSM [San Joaquin County Historical Society and Museum] is mission-bound to highlight concerns associated with the construction of Intake B, which is geographically coterminous with a known indigenous archaeological site, CA-SAC-60. While not in San Joaquin County, this site is known to have significant value to indigenous tribal entities in San Joaquin County and is of concern to the SJCHSM. In Chapter 19, Appendix 4, table 19-1, the DCP is noted as likely having significant and unavoidable impacts on CA-SAC-60. In Chapter 32.3.3.2, mitigation measure TCR-1a suggests that the DWR design engineers collaborated with indigenous tribes to ensure that "options for feasible avoidance" would be implemented so that the proposed project activity "would likely avoid impacts." Why have those "options for feasible avoidance" not been discussed in the draft	The section in Chapter 32, Tribal Cultural Resources, titled Consultation and Engagement with Tribes describes DWR's good-faith and robust effort to foster meaningful consultation with Tribes about Tribal cultural resources, including identification, impacts analysis, and mitigation. DWR provided information about the project to each of the consulting Tribes and invited each Tribe to provide DWR with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. DWR provided information about the project to each of the consulting Tribes and invited each Tribe to provide DWR with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. Any information consulting Tribes chose to share with DWR regarding culturally significant areas within the study area factored

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	EIR? The draft EIR states that Tribes were consulted in the process of developing these potential solutions for avoiding impacts on CA-SAC-60, but the particular Tribes are not mentioned. Were all Tribes with histories associated with the Delta consulted? The SJCHSM voices its utmost support of indigenous tribal entities potentially affected by the DCP and will stand in solidarity with those entities.	into DWR's finding that the Delta Tribal Cultural Landscape meets the criteria for listing in the California Register of Historical Resources and thus qualifies as a Tribal cultural resource under CEQA. In some cases, consulting Tribes were willing to discuss the location and characteristics of a feature of the Delta Tribal Cultural Landscape as part of consultation about the feasibility of avoiding impacts. Such information shared by the Tribes is protected from public disclosure. Furthermore, since the purpose of those discussions was to explore the feasibility of avoidance, and not to advance design development of any particular project alternative, the fact that DWR and Tribes successfully identified feasible avoidance strategies is appropriately presented in the discussion of Mitigation Measure TCR-1a. In many cases, DWR did not have access to the project footprint to be able to confirm the extent of the character-defining feature of the Delta TCL and therefore the appropriate boundary for avoidance. The surveys necessary for determining the extent of affected character-defining features of the Delta TCL will be conducted prior to construction. As described under Mitigation Measure TCR-1a, DWR would incorporate preconstruction surveys and feasible avoidance or protection measures in the design, construction, operations, and maintenance activities to avoid or protect Tribal cultural resources. DWR is committed to the principles and legal requirements for maintaining confidentiality of protected Tribal information. Public Resources Code Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of Tribal cultural resources that is submitted by a California Native American Tribe during the environmental process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without prior consent of the Tribe that provided the information.

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686-9	A second issue SJCHSM [San Joaquin County Historical Society and Museum] has with the draft EIR concerns a historic shipwreck not listed in the California State Lands Commission database. Oral histories of local Japanese community members in Stockton have long suggested that the pleasure craft of George Shima, the wealthy Japanese farmer in the Delta known as the "potato king," was scuttled in the Stockton Deepwater Channel in 1942, by his son George Shima II -- to prevent the boat from being stolen by local white farmers during the Japanese incarceration. Oral histories and eyewitness reports have long suggested this story to be true, but a lack of funding for archaeological work in Stockton has prevented local historical agencies from investigation. George Shima was a significant local businessman of national and international importance, and the Japanese incarceration was a watershed moment in American history. Staff at the SJCHSM were not aware that Shima's pleasure craft was not on the State Lands Commission's list of shipwrecks, and will work to rectify that issue. Will the DWR's engineers work diligently to avoid the shipwreck in their siting efforts? The site of the scuttled boat is believed to be, at this time, due west of the modern-day neighborhood of Brookside.	The portion of the project in the vicinity of the Stockton Deep Water Channel (SDWC) is an undercrossing that does not have potential to impact shipwrecks. In addition, the SDWC undercrossing is several miles away from the Brookside neighborhood. Please refer to Chapter 19, Cultural Resources, sections titled Study Area and Area of Potential Impact for Archaeological Resources for a discussion of the development of the study area and area of potential impact for archaeological resources. Also, please see the figure titled AI-A for the Delta Conveyance Project in Chapter 19 for a depiction of the Area of Impact for Archaeology. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the study areas evaluated in the EIR.
686-10	Part III: Philosophical Concerns Over the DWR's Scope of Analysis. The DWR, in drafting this EIR, chose to evaluate impacts on cultural resources within a narrow geographical scope. Specifically, this analysis looks at the impacts of the DCP on built resources directly affected by the geographical imprint of the DCP. The SJCHSM [San Joaquin County Historical Society and Museum] finds this scope of influence to be inadequate.	The analysis contained in the EIR does not support the assertion that the geographical scope is too narrow. Please refer to Chapter 19, Cultural Resources, sections titled Study Area and Area of Potential Impact for Built-Environment Resources, for a discussion of the development of the study area and area of potential impact for built-environment resources. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the study areas evaluated in the EIR.

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686-11	The DCP would be a region-altering project with long term economic impacts. Cultural heritage work is expensive -- the costs associated with submitting registry applications, preserving historic sites, building interpretation, promoting local history, and marketing heritage resources as economic assets is cost prohibitive for many communities. Cities such as Stockton, Lodi, Manteca, Tracy, Brentwood, Rio Vista, Antioch, and Pittsburg have historically struggled to build coherent cultural resources programs, largely due to a lack of municipal and private funding. The few entities that do this work in the Delta region, such as the SJCHSM [San Joaquin County Historical Society and Museum], often rely on the philanthropy of agricultural communities in the Delta. Other entities often rely on grant funding from local agencies. If the DCP is implemented, how will it affect the economic base of the Delta region on a fifty-year timescale?	Additional funding for cultural resource programs would become available with implementation of the project. Please see Appendix 3G, Community Benefits Program Framework, and Chapter 34, Community Benefits Program Analysis, which describe a set of commitments created by project proponents in coordination with the local community. These are intended to support the local community to create economic and social benefits to the residents, businesses, and organizations experiencing project effects. This includes funding to help protect, enhance, and sustain cultural and other values in the Delta. As described in Appendix 3G, the Community Benefits Program would provide opportunities for Delta communities to engage and articulate ways the Delta Conveyance Project can alleviate potential conflicts with local Delta land uses related to the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place (Delta as Place). Potential resource categories for potential actions that could be funded include actions to celebrate the array of cultures that thrive in the Sacramento–San Joaquin Delta or preserve historic assets for the public to appreciate and enjoy. Attachment 3G.1-F, May 6, 2021, Workshop Materials, includes a list of potential actions suggested through the outreach process for funding through the Community Benefits Program and includes Fund the Delta National Heritage Area. Please see Chapter 17, Socioeconomics, ECON-1, which addresses long-term changes in economic activity within the Delta region attributable to Delta Conveyance Project with focus on changes attributable to operations and maintenance of the project facilities and the permanent conversion of agricultural lands. These changes would occur over the life of the project.
686-12	The DCP would be a region-altering project with long term economic impacts. Cultural heritage work is expensive -- the costs associated with submitting registry applications, preserving historic sites, building interpretation, promoting local history, and marketing heritage resources as economic	As described in Chapter 17, Socioeconomics, the total value of irrigated crop production in the statutory Delta and project area would decline by about $2.4 to $5.1 million per during the construction period relative to existing conditions. The decline in crop production and acreage are less

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	assets is cost prohibitive for many communities. Cities such as Stockton, Lodi, Manteca, Tracy, Brentwood, Rio Vista, Antioch, and Pittsburg have historically struggled to build coherent cultural resources programs, largely due to a lack of municipal and private funding. The few entities that do this work in the Delta region, such as the SJCHSM [San Joaquin County Historical Society and Museum], often rely on the philanthropy of agricultural communities in the Delta. Other entities often rely on grant funding from local agencies. How will it affect Delta farmer's ability to maintain operations?	than 1% relative to existing conditions in the statutory Delta for all project alternatives. Given the projected modest change in economic output from the agricultural industry in the statutory Delta, there are no anticipated substantive future reductions in availability for cultural heritage work in the Delta region as a direct result of proposed project implementation. Please also refer to response to comment 686-11 regarding funding for cultural resource programs.
686-13	The DCP would be a region-altering project with long term economic impacts. Cultural heritage work is expensive -- the costs associated with submitting registry applications, preserving historic sites, building interpretation, promoting local history, and marketing heritage resources as economic assets is cost prohibitive for many communities. Cities such as Stockton, Lodi, Manteca, Tracy, Brentwood, Rio Vista, Antioch, and Pittsburg have historically struggled to build coherent cultural resources programs, largely due to a lack of municipal and private funding. The few entities that do this work in the Delta region, such as the SJCHSM [San Joaquin County Historical Society and Museum], often rely on the philanthropy of agricultural communities in the Delta. Other entities often rely on grant funding from local agencies. How will it affect the tax bases of local governments?	Effects on local government fiscal conditions are discussed in Chapter 17, Socioeconomics, ECON-4. In addition, please see Common Response 7, Implementation Considerations, regarding requirements for the DWR to make in-lieu of property tax payments to jurisdictions within the Delta study area directly affected by the Delta Conveyance Project. Please refer to response to comment 686-11 regarding funding for cultural resource programs.
686-14	The DCP would be a region-altering project with long term economic impacts. Cultural heritage work is expensive -- the costs associated with submitting registry applications, preserving historic sites, building interpretation, promoting local history, and marketing heritage resources as economic	The analysis contained in the EIR includes consideration of construction, operation, and maintenance impacts of the project on the region. Please see Chapters 7-32 regarding an analysis of potentially significant environmental impacts and mitigation measures, where feasible, to reduce, minimize, or avoid potentially significant impacts on multiple

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	assets is cost prohibitive for many communities. Cities such as Stockton, Lodi, Manteca, Tracy, Brentwood, Rio Vista, Antioch, and Pittsburgh have historically struggled to build coherent cultural resources programs, largely due to a lack of municipal and private funding. The few entities that do this work in the Delta region, such as the SJCHSM [San Joaquin County Historical Society and Museum], often rely on the philanthropy of agricultural communities in the Delta. Other entities often rely on grant funding from local agencies. All of these questions are valid with regards to cultural heritage work, because local agencies doing cultural heritage work rely on these sources of revenue to survive. The SJCHSM would like a finished EIR to assess the long-term impacts of the DCP on traditional funders of heritage work in the Delta's primary and secondary zones.	environmental resources. Chapter 15, Agricultural Resources, evaluates impacts on agricultural and environmental resources in the Delta, and Chapter 17, Socioeconomics, evaluates potential socioeconomic effects in the Delta. As noted in Chapter 17, under CEQA, social or economic effects alone will not be treated as impacts on the physical environment. Please refer to response to comment 686-11 regarding funding for cultural resource programs.
686-15	Taken together, the SJCHSM [San Joaquin County Historical Society and Museum] finds several critical inadequacies with the DWR's draft EIR for the DCP.	The Delta Conveyance EIR has been prepared in compliance with CEQA and evaluates the full range of potential impacts that may result from construction, operation, and maintenance of the proposed project and its alternatives. Chapter 4, Framework for the Environmental Analysis, describes the EIR's broad framework for analysis. Further details are contained in responses to comments in letter 686, above, which provide additional details regarding the EIR's analysis.
686-16	We hope that our concerns will be taken seriously, and that the DWR will choose to collaborate with the SJCHSM [San Joaquin County Historical Society and Museum] and other historical agencies in its editorial process for the final EIR, so as to rectify these inadequacies.	DWR has reviewed and responded to this organization's comments in responses to comments 686-1 through 686-15.
696-1	Miwok culture and traditions critically depend on the survival of the salmon. As we fight for our fishing rights, we are simultaneously faced with the devastation that the DCP would wreak on the Tribal Cultural Landscape, through increasing	DWR understands and recognizes that salmon are a key species for Tribes. DWR has consulted with Tribes and considered the impacts on salmon and other native fish species habitats as a character-defining feature of the Delta as a Tribal Cultural Landscape, as described in Chapter 32, Tribal

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	toxic algae levels, and compromising fish runs. All alternatives result in the disturbance of cultural resources, including historic Tribal villages and mounds pre-dating European contact, which cannot be adequately mitigated once disturbed. Despite the full acknowledgement of the importance of the Delta TCL to Tribes, DWR insists on moving forward with the project. Tribes should not have to fight so hard to save their Tribal cultural resources, spiritual and ceremonial sites, and locations of creation stories from desecration by state projects.	Cultural Resources, Impact TCR-1. Although the analyses in Chapter 19, Cultural Resources, and Chapter 32, Tribal Cultural Resources, concludes that impacts on cultural resources and Tribal cultural resources, respectively, would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. Please also refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. DWR will not make a decision on the project until after addressing public comments on the Draft EIR, certifying the Final EIR, making all necessary findings, and taking any other actions required to comply with CEQA. Please refer to Common Response 16 regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project. Please see Chapter 12, Fish and Aquatic Resources, for a detailed discussion of the proposed mitigation measures that would reduce impacts on salmon to less than significant. Please also see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, regarding compensatory mitigation including tidal habitat restoration to mitigate north Delta hydrodynamic effects on chinook salmon juveniles and channel margin habitat restoration for operations impacts on Chinook salmon juveniles. Chapter 9, Water Quality, addresses harmful algal blooms under Impact WQ-14, which concludes that the impact would be less than significant.
696-2	The Delta Conveyance project's ('DCP') draft EIR also failed to observe or address a few issues in their environmental analysis. As a result of overlooking various issues that relate to the project's potential impacts on the physical environment, the draft EIR's scope is inadequate, non-substantially engaging	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding comments that state opinions of general opposition to the project, regarding the adequacy of the environmental baseline under CEQA, and regarding the scope of the analysis.

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	tribes, not respecting tribes who say "no," and its discussion about existing conditions is incomplete. In order to rectify the EIR's analysis of the DCP, the DWR has a duty to consider these things.	Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources.
696-3	The DCP's draft EIR overlooks the impacts that the project would have on terrestrial biological resources. The EIR does this by using a scope that is limited to focusing on how the DCP will impact the region hydraulically and atmospherically (3-4, 13). The EIR's scope would be more realistic and complete if it addressed both the short-term and long-term impacts that the DCP would have on salmon and other fish species. By overlooking this aspect of the project, those who support the DCP were able to neglect the research and data collected about the local wildlife that would otherwise suggest that these wildlife populations need to be protected rather than worked around. The University of California, Davis and the United Nations predict that due to climate change, spring run Chinook will not survive past 2099 in Central Valley, California waters. DEIR does not adequately assess impact to salmon and other fish species in addition to not adequately engaging with tribes in a meaningful and reciprocal manner. All alternatives result in far worse ecological conditions for native fish and wildlife; and reduced survival of juvenile Winter and Spring-run salmon through the Delta. DCP would result in substantial cumulatively significant impact on the Delta Tribal Cultural Landscape (TCL) and Sacramento River TCL, toxic algae levels and fish runs.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the scope of analysis. As described in Chapter 13, Terrestrial Biological Resources, potential impacts related to wildlife would be mitigated to a less-than-significant level. Please refer to Chapter 4, Framework for the Environmental Analysis, for an explanation regarding how climate change was incorporated into the EIR's analysis. Please refer to response to comment 696-1 regarding the EIR's analysis of Tribal cultural resources, fish and aquatic resources, and harmful algal blooms. Please also refer to Common Response 16, Tribal Cultural Resources, regarding DWR's good-faith effort to foster meaningful consultation with Tribes. Please also refer to Chapter 32, Tribal Cultural Resources, regarding DWR's consideration of the Sacramento River Tribal Cultural Landscape. The EIR appropriately evaluates cumulative impacts on water quality, fish species, and Tribal cultural resources, in Chapter 9, Water Quality, Chapter 12, Fish and Aquatic Resources, and Chapter 32, Tribal Cultural Resources, respectively, and proposes mitigation measures for potentially significant environmental impacts, where appropriate.

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696-4	Although the EIR does discuss some risks that the "noise and vibration" (19) pose for the local aquatic life, they offer a remedy that would mitigate the damage caused by noise and vibration. While this approach appears to resolve an issue, it does not fairly consider the risk of damage caused by the DCP's noises and vibrations. If the EIR had included research about the long-term effects that "ground disturbances and removal of habitat" will have on the ecosystem, then perhaps they would have found that the risks associated with the DCP outweigh the desired benefits that one hopes to achieve from the project.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available science. The EIR evaluates environmental impacts and proposed mitigation measures, regarding multiple environmental resources in the Delta, including noise in Chapter 24, Noise and Vibration. As described in Chapter 24, Noise and Vibration, the potential impacts analyzed, including construction noise, could result in less than significant impacts with mitigation. Additionally, the analyses included in Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources, conclude that potential impacts related to aquatic species and wildlife would be mitigated to a less-than-significant level.
696-5	Cultural and ecological perpetuity are of critical importance to Indigenous Peoples, especially the Miwok communities in the Valley. Thank you for taking the time to read these comments and acting upon due diligence duties required regarding consultation with tribes in a meaningful way and preservation of the salmon of which so much depends.	Please refer to response to comment 696-1 regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources, and regarding the EIR's analysis of potential impacts on salmon. Please refer to response to comment 696-3 regarding the terrestrial biological resources analysis. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and will continue to consult with Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts.
712-1	We concur the Mokelumne Coast to Crest Trail alignment is a vital recreational asset in this region and will provide countless visitors and residents the opportunity to get out into nature in a region with fewer options compared to other California regions. The Mokelumne Coast to Crest Trail roughly follows not only the Mokelumne River alignment, but the path	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	followed so many years ago by those traveling to the Gold Rush from the coast. It is time, once again, to set up a pathway that explores the Delta and shows residents and visitors alike the beauty and utility of this region. Visit www.mc2ct.org for more information about the Mokelumne Coast to Crest Trail. -- Respectfully, Mary Boblet, Director, The Mokelumne Coast to Crest Trail Council.	
712-2	This region and conveyance is a vital part of California that needs to be seen so that all may understand what it represents for our water supply and our survival in the decades to come.	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
729-1	Good afternoon. I would also like to voice my support of prior commenters. And I [speaker from Save California Salmon] just want to go on to say that there are many troubling aspects to the draft EIR when it comes to preserving tribal cultural resources. And mainly the fact that despite years of tribal consultation and a supposed desire for DWR to collaborate with tribes, it's still moving forward with this project, which will substantially materially impact tribal cultural resources. And despite all the evidence that's provided in Chapter 32 by tribes, and the expression of how important these cultural resources and the landscape is to these tribes, DWR is determined that this project is seemingly more important, preserving our, indeed, dwindling traditions and irreplaceable religious sites as not as important as getting this project built. And if this project is completed, it will just be further cultural genocide against Indigenous peoples of California.	DWR recognizes and affirms Executive Order N-15-19, which apologized on behalf of the citizens of the State of California to all California Native Americans for the many instances of violence, maltreatment, and neglect California inflicted on Tribes. Please refer to Common Response 16, Tribal Cultural Resources, regarding how DWR's efforts to identify and analyze impacts on Tribal cultural resources were consistent with current State policies regarding Indigenous people in California. Please also refer to Common Response 16 regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the project and regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. Although the analysis in Chapter 32, Tribal Cultural Resources, concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. For example, DWR would implement Mitigation Measure TCR-1a to incorporate preconstruction surveys and feasible avoidance or protection measures in the design, construction, operations, and maintenance activities to avoid or protect Tribal cultural resources. Where avoidance or protection is not feasible, DWR would implement other mitigation measures (Mitigation Measures TCR-1b, TCR-

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		1c, and TCR-1d), as applicable. This would include mitigation by way of resource-specific treatment, in consultation with affiliated Tribes, and the incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and DWR will continue to consult with affiliated Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts. Please refer to Volume 2, Chapter 2, Indices of Commenters and Index of Primary Forms, to locate the letter numbers of comments provided by other entities that are of interest. Responses to all comment letters are provided in Volume 2, Chapter 4, Response to Comments Tables.
729-2	We [Save California Salmon] will be submitting further comments by the 16th, but that's all I wanted to say today. Thank you.	This information describes clarification on the submittal of the comment letter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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733-1	Attached please find comments on the Delta Conveyance Project Draft EIR and Sierra Club California's Smart Water Alternatives. Comments are submitted on behalf of Sierra Club California, Environmental Justice Coalition for Water, California Indian Environmental Alliance (CIEA), Southern California Watershed Alliance, Desal Response Group, Social Eco Education, and SoCal 350 Climate Action. I would appreciate confirmation that you have received the comments and attachment.	This information describes the transmittal of the comment letter and clarification on the submittal of the comment letter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
733-2	On behalf of Sierra Club California and our more than half a million members and supporters statewide, and our allies at the Environmental Justice Coalition for Water, California Indian Environmental Alliance (CIEA), Southern California Watershed Alliance, Desal Response Group, Social Eco Education, and SoCal 350 Climate Action, we write to offer our comments on the Draft Environmental Impact Report (DEIR) for the Delta Conveyance Project (DCP). Our organizations engaged in the comment process by submitting written comments, participating in the Virtual Public Hearings in September 2022, and encouraging our members to attend Virtual Public Hearings and provide written comments to the Department of Water Resources (DWR). For decades, Sierra Club California has advocated for California to develop a water portfolio that promotes local and regional resiliency while protecting water for the environment. We believe California can meet its water needs and adapt to the impacts of climate change by pursuing projects that increase agricultural and urban conservation, sustainable groundwater storage and management, increased water reuse and recycling, and stormwater capture. Sierra Club California is committed to ensuring that any future water projects are in the best interest	This information describes the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	of the public, local communities, and the environment.	
733-3	The DEIR for the Delta Conveyance Project falls short of the requirements set forth in the California Environmental Quality Act (CEQA), and other applicable law, to consider a reasonable range of The DEIR for the Delta Conveyance Project falls short of the requirements set forth in the California Environmental Quality Act (CEQA), and other applicable law, to consider a reasonable range of alternatives, disclose and mitigate significant environmental effects of the proposed project, and weigh the costs and benefits of the proposed project. The Delta Conveyance Project is a $16 billion-plus investment that would perpetuate the status quo of California water management, prioritizing outdated infrastructure and unsustainable water diversions over regional solutions to promote water resilience in the age of climate change. The DEIR must be revised to include additional analysis and recirculated for additional public comment.	As described throughout the EIR, particularly in Chapter 4, Framework for the Environmental Analysis, and Common Response 1, CEQA Process, General Approach to Analysis and Other Environmental Review Issues, the Delta Conveyance Project EIR was developed in compliance with CEQA, and the analysis of potentially significant physical environmental impacts meets the requirements found in the State CEQA Guidelines, including Appendix G. The EIR includes an evaluation of a reasonable range of potentially feasible alternatives (refer to Common Response 3, Alternatives Development and Description, and Appendix 3A, Identification of Water Conveyance Alternatives), disclosed potentially significant environmental impacts on multiple resources and identified mitigation to reduce potentially significant impacts (refer to Chapters 7 through 32). CEQA does not require the cost-benefit analysis suggested by the comment and information regarding costs and financing of the project and implementation of the project can be found in Common Response 7, Implementation Considerations. DWR is preparing a cost-benefit analysis which will be considered during the project's funding approval phase. Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1 regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. Common Response 1 also provides a description of the requirements for recirculation of an EIR, none of which the current EIR meet. Therefore, the EIR does not require recirculation. The information and analyses contained in the EIR are more than sufficient for the public and decision-makers to understand the potentially significant physical environmental impacts of constructing, operating and maintaining the proposed project and its alternatives. This comment is an introductory statement. Responses to detailed comments

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		provided in this letter are provided herein.
733-4	The DEIR must be written in a manner that is clear and accessible to the public, without relegating important analyses to appendices or splitting related issues between disconnected chapters.	This is a summary comment on the Draft EIR. Responses to the detailed comments on the topics listed in this comment are provided within this table in responses to comments 733-11 to 733-220. For additional details specific to the organization and clarity of the EIR see responses to comments 733-11 and 733-12.
733-5	The Purpose and Project Objectives must be revised to include the 2009 Delta Reform Act Policy of reducing reliance on Delta exports.	Please see response to comment 733-4 regarding the summary list provided in this letter. For additional details specific to purpose and objectives see responses to comments 733-13 through 733-18.
733-6	The DEIR must consider robust alternatives that provide water resiliency without compromising the health of the Delta ecosystem. The alternatives presented would have significant impacts to the communities and environment of the Delta and outside of it. In addition to a No Project Alternative, we propose a No Tunnel Alternative, which must include measures to improve conditions in the Delta.	Please see response to comment 733-4 regarding the summary list provided in this letter. For additional details specific to the reasonable range of feasible alternatives evaluated in the EIR see responses to comments 733-19 and 733-20.
733-7	The DEIR must be revised to address opposition from Delta Counties and Tribes that have objected to the project and its impacts. The DEIR must consider alternatives that avoid significant impacts, not limit the analysis to mitigation.	Please see response to comment 733-4 regarding the summary list provided in this letter. For additional details specific to Tribes and Tribal cultural resources see responses to comments 733-197 through 733-199.
733-8	The Impact and Climate Change analysis must be revised to include modeling during the operational timeframe of the project. The analysis is based on historical water data, which is not representative of expected future scenarios under climate change, and only models impacts at 2040	Please see response to comment 733-4 regarding the summary list provided in this letter. For additional details specific to climate change and modeling see responses to comments 733-20 through 733-22 and responses to comments 733-188 through 733-196.
733-9	The Community Benefits Framework and measures that can be taken to improve the ecological health of the Delta should be considered and implemented under all alternatives, including a No Tunnel Alternative, not only as quid pro quo for the devastating impacts of tunnel construction. Below we offer comments and recommendations on the DEIR.	Please see response to comment 733-4 regarding the summary list provided in this letter. For additional details specific to climate change and modeling see responses to comments 733-206a, 733-211 through 733-218.

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733-10	TABLE OF CONTENTS: I. The DEIR should be written in a manner that is clear and accessible to the public 4 II. Purpose and Project Objectives are too narrow 4 III. The DEIR fails to analyze alternatives that would protect the Delta 5 IV. Surface Water 6 V. Water Supply 6 VI. Flood Protection 8 VII. Groundwater 11 VIII. Water Quality 11 IX. Geology and Seismicity 11 X. Soils 13 XI. Fish and Aquatic Resources 13 XII. Terrestrial Biological Resources 16 XIII. Land Use 32 XIV. Recreation 33 XV. Socioeconomics 34 XVI. Cultural Resources 35 XVII. Energy 35 XVIII. Air Quality and Greenhouse Gasses 38 XIX. Hazards, Hazardous Materials, and Wildfire 39 XX. Public Health 42 XXI. Mineral Resources 43 XXII. Paleontological Resources 43 XXIII. Environmental Justice 44 XXIV. Climate Change 46 XXV. Tribal Cultural Resources 48 XXVI. Other CEQA-Required Analyses 49 XXVII. Community Benefits Program Analysis 50	This information describes the structure and organization of the content in the comment letter. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.
733-11	I. The DEIR should be written in a manner that is clear and accessible to the public CEQA provides that an EIR should	As described in Common Response 1, CEQA Process, General Approach to Analysis and Other Environmental Review Issues, the EIR necessarily

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	be "organized and written in a manner that will be meaningful and useful to decision makers and to the public." [Footnote 1: 13 PRC § 21003 (2021)]. The Draft EIR for the DCP is nearly 20,000 pages long, consistently makes references to large documents without proper citations, separates related sections and discussions, and makes cross-references to dispersed but related sections, again without adequate citations. [Footnote 2: CEQA guidelines state, "The EIR shall cite all documents used in its preparation including, where possible, the page and section number of any technical reports which were used as the basis for any statements in the EIR." (CEQA guidelines Section 15148.)]. Together, these problems make a long, technical, and complex document unnecessarily difficult for anyone to read, understand, and provide meaningful feedback on.	includes a considerable amount of information to adequately analyze potentially significant environmental impacts due to the scope and scale of the Delta Conveyance Project. Information is presented in the EIR in a format with emphasis on conclusions and data useful to decision makers and the public. Furthermore, as described in the Common Response, the EIR followed generally accepted practices for the preparation of such documents and organizes information primarily by resources topics, with summarizes of impacts and comparisons of project alternatives summarized at the beginning of each chapter. Per CEQA guidelines Section 15148 the EIR includes appropriate citations, and as applicable, citations to specific page numbers or section number and title cross references.
733-12	Sections of the DEIR that are particularly inaccessible include: impacts to the Sandhill Cranes (Terrestrial Biological Resources), the Land Use scattered assessments, mitigations, cross-sectional assessments, references, and lack of proper referencing between related sections (Land Use), and many of the chapters (Soils, Water Quality, Air Quality and Greenhouse Gasses) are too jargon-heavy for members of the public, such as impacted community residents, to understand without specialized education. The Community Benefits Framework has many hypothetical situations that would require their own CEQA evaluations, which makes it difficult to respond to at this time.	The comment assertion that sections of the EIR are "inaccessible" and that the assessments are scattered is unfounded. As described in Chapter 4, Framework for the Environmental Analysis, the overall organization and content of the resource-specific analyses in the EIR were developed to meet CEQA (Pub. Resources Code § 21000 et seq.) content requirements. The main resource chapters contain information and analyses for the public and decision-makers to conduct a meaningful review. The environmental impact analyses and CEQA determinations are presented in a clear, logical manner in Chapters 7 through 32 and do not obfuscate information as the comment suggests. In addition, the table in the Executive Summary titled Summary of Delta Conveyance Project Impacts and Mitigation Measures summarizes all of the impacts, mitigation measures, and impact significance after mitigation for all resource topics evaluated in the EIR and is followed by summary discussions of each major impact for each resource evaluated in the EIR. Tables providing a summary comparison of important impacts and determinations by alternative are included at the beginning of each resource chapter of the EIR as well. Additional details regarding

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		methods and modeling results are provided in appendices in instances where it would be too voluminous to include in the main chapter. The EIR also includes a Table of Contents to assist readers find information and Chapter 38, Glossary to aid in the understanding of the organization of material in the EIR and aid in understanding words commonly used in these types of technical analyses that may be unfamiliar to reviewers. Please refer to Common Response 2, Public Outreach Activities, regarding the public outreach efforts conducted throughout the EIR process to provide public information and encourage public participation and comment. DWR has developed a robust public outreach and information program to keep interested parties aware of the development of the Delta Conveyance Project. DWR has developed information materials including videos, fact sheets and blogs; held a series of informational webinars in Summer 2021; and developed information pieces, such as the Draft EIR Explained, to help guide reviewers on the content and information contained in the Draft EIR. Please see response to comments 733-206a through 733-218 regarding the Community Benefits Program framework and analysis.
733-13	II. Purpose and Project Objectives are too narrow The DEIR describes the purpose of the project to "restore and protect the reliability of State Water Project (SWP) water deliveries south of the Sacramento–San Joaquin Delta (Delta) consistent with the California Water Resilience Portfolio, in a cost-effective manner" (Ch. 2, p. 2). The objectives focus on the SWP's ability to respond to sea level rise and climate change, minimize disruption of SWP operations from earthquakes in and around the Delta, improve water supply reliability, and provide operational flexibility (Ch. 1, p. 2).	A substantial portion of the comment quotes text from the Draft EIR. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the CEQA requirements for describing the objectives of a proposed project. The comments regarding terminology are not comments that raise significant environmental issues relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. Terminology has been used consistently throughout the EIR, which has been written in plain language to be clear and understandable.
733-14	At a threshold level, the DEIR does not define essential terms it uses to define the project and goals, including "restore" and "reliability" or "cost-effective," nor does the DEIR provide any analysis to support the implication that the proposed project will achieve the goal specified. Given the use of the term	The design capacity of the existing facilities is not relevant to the proposed project, its alternatives or the environmental analysis contained in the EIR. As described in Common Response 1 and Chapter 1, Introduction, in the section titled Regulatory Environment, pumping restrictions applied by regulatory agencies to address water quality and aquatic species concerns

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	"restore," the DEIR should provide all the original design aspects related to the reliability of current SWP and Central Valley Project (CVP) facilities and operations and their current levels of performance reliability. The DEIR should also include information and comparison of the original design and current levels of operational flexibility to support assertions regarding that goal.	at the south Delta diversion continue to prevent the SWP from reliably capturing water when it is available, especially from major storm events. Thus, the need to restore and protect the reliability of the SWP is included in the project purpose and objectives. The impact analysis throughout the EIR considers current operations of the existing facilities under regulatory requirements, contact and delivery volumes, and a wide variety of hydrologic conditions, as described in Appendix 5B, Modeling Technical Appendix, Section B, Hydrology and Systems Operations Modeling. Please refer to Chapter 3, Description of the Proposed Project and Alternatives, regarding the proposed operations of the project. Please also refer to Common Response 3, Alternatives Development and Description, regarding water rights and contracts as well as the operational criteria, which are designed to comply with multiple regulatory requirements for water quality, fish protection, etc., regardless of project conveyance capacity. The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR.
733-15	Additionally, the DEIR has not defined the term "cost-effective," nor has it provided any analysis of the cost-effectiveness of all project elements and alternatives. The DEIR should provide a thorough project-level cost-benefit analysis for each alternative, and update the estimates to account for inflation and project cost overruns. The DEIR must be revised to include definitions and additional analysis to compare and determine whether the project alternatives are able to meet the stated goals.	Please refer to Common Response 1 regarding scope of the project objectives and the discretion CEQA affords lead agencies in describing the objectives of a project. In selecting Alternative 5 as the proposed project, DWR considered anticipated costs of the alternative. However, cost considerations are not included as part of the proposed project's four basic project objectives. Therefore, cost considerations were not used in identifying potentially feasible alternatives for analysis in the EIR, as explained in Common Response 3, Alternatives Development and Description. The type of comparative cost analysis requested by the comment is not a CEQA requirement, although DWR is preparing a cost-benefit analysis which will be considered during the project's funding approval phase. The purpose of CEQA is to evaluate and disclose potentially significant physical environmental effects. Please refer to Common Response 7, Implementation Considerations, regarding project costs and funding sources. While a comparative cost analysis is not required in an EIR,

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		CEQA recognizes that, in determining whether and how a project should be approved, a lead agency will balance a variety of public objectives including economic factors (further detailed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and in Common Response 7, Implementation Considerations).
733-16	Finally, the DEIR must be revised to provide clear usage of the terms “goals” and “objectives” and avoid any use of “purposes” and “needs” as they are easily confused with Federal NEPA/DEIS usages.	As discussed in Chapter 1, Introduction, and Chapter 4, Framework for the Environmental Analysis, the EIR has been written with the anticipation that the EIS developed by the U.S. Army Corps of Engineers would reference the Draft EIR, where appropriate. Therefore, the EIR has been designed to meet certain NEPA requirements (e.g., inclusion of an Environmental Justice Chapter). Section 15124 of the CEQA Guidelines include: "The statement of objectives should include the underlying purpose of the project." Thus, DWR used the term "purpose" in the EIR in accordance with CEQA. The language in the EIR clearly communicates the project purpose and objectives for CEQA purposes and the terminology is used consistently throughout the EIR.
733-17	Second, the stated purpose and objectives are artificially narrow and preclude consideration of a robust no tunnel alternative that prioritizes investments in local and regional water projects to advance statewide water resiliency. The fundamental purpose is to “restore and protect the reliability of SWP deliveries” (Ch. 2, p. 2). At the outset, it precludes any alternatives that would promote local and regional water projects to meet the needs of SWP contractors. The DEIR admits “[i]n the absence of the Delta Conveyance Project, participating water agencies would seek to bolster water reliability through other projects. However other water reliability projects are related to making local supplies more reliable and not related to restoring and protecting SWP supplies” (Ch. 30, p. 23). The narrow purpose serves to omit consideration of alternatives to the DCP that would be able to meet the overarching objectives of addressing sea level rise	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the discretion CEQA affords lead agencies in defining the project purpose and objectives and the scope of the purpose and objectives statements for the purposes of CEQA. The project objectives are not artificially narrow. CEQA does not restrict an agency's discretion to identify and pursue a particular project designed to meet a particular set of objectives. Please also see Common Response 3, Alternatives Development and Description, regarding the alternatives evaluated and the reasonable range of feasible alternatives evaluated in the EIR, per the requirements of CEQA. This Common Response addresses commenter-suggested alternatives, such as portfolio approaches related to water management activities, water supply demand management and conservation, expansion and use of water supply desalination facilities, and non-tunnel conveyance. These commenter-suggested alternatives are the same or similar to those

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	and impacts of climate change, minimizing public health and safety impacts from reduced SWP deliveries, protecting water supplies under future climate scenarios and legal requirements, and improve aquatic conditions in the Delta (Ch. 2, p. 2).	types of activities identified in ATT 1 of this letter (Report titled Sierra Club California's Smart Water Alternatives to the Bay Delta Conveyance Project, dated December 2022). In addition, as mentioned in Common Response 3 and discussed further in Common Responses 4, No Project Alternative Description and Analysis and 5, Public Water Agencies' Water Management Practices, actions by local and regional public water agencies are being taken that include those activities described in ATT1. These types of actions are considered in the EIR as part of the No Project Alternative. However, as described in Common Response 3, these types of actions would not meet the basic project objectives. Finally, Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, describe further the alternatives development process and the range and scope of alternatives considered using the project purpose and objectives. CEQA Guidelines Section 15124(b) requires a clearly written statement of objectives to help the lead agency develop a reasonable range of alternatives to evaluate in the EIR. The project objectives presented in Chapter 2, Purpose and Project Objectives address what the Delta Conveyance Project is focused on accomplishing, in part, to further the California Water Resiliency Portfolio action to modernize Delta conveyance infrastructure and improve water supply reliability. A dual conveyance system is proposed to improve flexibility, meet water needs, and improve reliability. The executive order criteria and priorities are intended to guide the development of the portfolio of options to improve water resilience in California as a whole and are not intended to be CEQA alternatives screening criteria for project EIRs.
733-18	Moreover, the purpose seems to indicate that California's water system is reliant on SWP deliveries and DWR is committed to maintaining the status quo. This is contradictory to the Delta Reform Act, which established a state policy to "reduce reliance on the Delta in meeting California's future water supply needs." (Cal. Wat. Code Section 85021) [Footnote	Please see response to comment 733-17 regarding the purpose and objectives of the project and DWR's commitment to the use and reliability of the SWP. Please also see Common Response 3 regarding commenter-suggested alternatives regarding exports and a reduction of exports. Please see Appendix 3E, Delta Reform Act Considerations, and Common

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	3: See https://www.epa.gov/sites/default/files/documents/epar9commentsbdcppurpstmt6-10-2010.pdf]. The DEIR should be revised to broaden the Purpose of the project and consider non-tunnel alternatives that would meet the overarching objectives without increasing reliance on exports from the Delta [Footnote 4: See also, https://pcffa.org/wp-content/uploads/2016/11/PCL-et.-al.-Final-Supplemental-Cmts-FEIR-EIS-BDCP_CWF-Jan-30- 2017.pdf].	Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the Delta Reform Act and the reduced reliance on the Delta. Please also see Common Response 8, regarding the relationship between the Delta Conveyance Project and Executive Order N-10-19 and the California Water Resilience Portfolio. As described in Common Response 8 and Chapter 1, Introduction, DWR recognizes there is no one-size-fits all approach, as does the California Water Resilience Portfolio. This is why the California Water Resilience Portfolio includes more than 100 separate detailed actions needed to ensure California's water systems work in the coming decades. The Delta Conveyance Project is one of many projects that will help meet California's water management needs but is not intended to be the only project that could meet water management needs. Finally, please note that DWR is no longer pursuing the Bay Delta Conservation Plan/California Water Fix as described in Chapter 1, Introduction and Volume 2 Chapter 1, Introduction and Approach to Responses to Comments. Comments or information related to the Bay Delta Conservation Plan/California WaterFix project do not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued.
733-19	III. The DEIR fails to analyze alternatives that would protect the Delta. The DEIR's range of alternatives is limited and must be revised to include additional alternatives that would meet the overarching goal of improving water reliability in the SWP service area. The range of alternatives consists of a piecemeal approach whereby three possible alignments are combined with a selection of tunnel capacities and three possible intakes to create a selection of nine possible tunnels (Ch. 3, p.13-14). None of the tunnel alternatives includes the simplest tunnel path in a straight line from the inlets to the discharge point	Please see response to comments 733-13 through 733-17 regarding the development of the reasonable range of feasible alternatives evaluated in the EIR that meet the basic project objectives and the purpose and objectives of the Delta Conveyance Project. DWR has considered shorter, straighter conveyance alignments in the past that were eliminated because of land use and agricultural land conflicts, difficult construction logistics in areas farther west of current alignments, and species habitat effects. Accordingly, such a route would not be anticipated to substantially reduce any of the project's significant

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	without curves between shafts. Nor do they include a fully gravity-powered tunnel with minimal head loss and appropriate entry and discharge levels/elevations.	unavoidable impacts. The current dual conveyance alternatives would use through-delta and a gravity-fed tunnel to convey water to either the Bethany Complex or Southern Complex, depending on the alternative. Please see Chapter 22, Energy, for a description of the operational energy efficiencies considered and added to the project design, including the use of gravity flow by designing the tunnel to convey water into the Southern Forebay via gravity flow under certain Sacramento River flow conditions for Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c.
733-20	The DEIR does not consider an alternative that would include improvement of existing levees and other water infrastructure or a combination of local or regional demand reduction and supply augmentation projects. A recent report by the Pacific Institute found that Southern California can save between 1.1-1.7 million acre-feet of water per year in just the south coast by implementing water conservation [Footnote 5: The Pacific Institute, The Untapped Potential of California's Water Supply: Water Efficiency, Water Reuse, and Stormwater Capture, April 2022, https://pacinst.org/publication/california-urban-water-supply-potential-2022/]. This would be four times greater than the 236,000 acre-feet of water that DWR claims could have been captured in 2021 if the DCP was operational [Footnote 6: CA Department of Water Resources, DWR Releases Draft Environmental Impact Report for Delta Conveyance Project, (July 27, 2022) https://water.ca.gov/News/News-Releases/2022/July-22/DWR-Releases-Draft-Environmental-Impact-Report-for-Delta-Conveyance-Project.]. California can meet its water resiliency needs without constructing the DCP. The DEIR must be revised to consider an alternative that promotes water reliability by improving existing infrastructure and reduces reliance on Delta exports by investing in water efficiency, recycling, stormwater capture, and other technologies to reduce demand and increase available supply.	Other alternatives mentioned in this comment including levee reinforcement/channel improvements, water conservation, stormwater capture, and water recycling/purification were not considered as alternatives to the proposed project because they would not meet most of the basic project objectives presented in Chapter 2, Purpose and Project Objectives, and as presented in Appendix 3A, Identification of Water Conveyance Alternatives. Generally, these alternatives would not meet two or more climate change/sea level rise, seismic and water supply resiliency, or operational flexibility objectives. Although not incorporated into the project alternatives, these water infrastructure and management approaches are currently being pursued through the State Water Supply Resiliency Portfolio and are complementary to the proposed project. Please also refer to Common Response 5, Public Water Agencies' Water Management Practices, regarding existing efforts and future actions to be undertaken by State Water Project users to ensure California's water resources are being used efficiently and sustainably, which include some actions mentioned by the comment. Please also see Common Response 3 regarding a discussion about reducing exports from the Delta, which does not meet the project objectives. And please see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the Delta Conveyance Project and consistency with the Delta Reform Act, a discussion of the co-equal goals and reduced reliance on the Delta, and statewide water management

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		planning considerations. Common Response 3 also provides a description of why non-tunnel alternative(s), such as the ones mentioned by the comment, would not meet most of the basic project objectives. Generally, these alternatives would not meet climate change/sea level rise, seismic, and water supply resiliency project objectives related to the State Water Project
733-21	IV. Surface Water Modeling for surface water is only provided for the years 2020-2040, which is a recurring issue in this draft. DCP completion is not expected until a minimum of 2040. Because modeling is only provided up to 2040, the DEIR does not model impacts during the time the project would be operational, which is estimated to be 30 years. Moreover, the climate analysis is based on historical flows (October 1921-September 2015) which are not predictive. Climate Change will affect the temperature and the timing, quantity, and location of precipitation, which we have begun to experience in just the past few years already.	Please refer to Common Response 9, Hydrologic Modeling and Approach, regarding the use of CalSim 3 in the Delta Conveyance Project, the comparative nature of CalSim 3 results, and the use of historical information. No hydrologic model used for the purpose of an EIR is predictive; hydrologic models cannot "predict" what will happen in the future. The use of CalSim 3 for the Delta Conveyance EIR is no different and CalSim 3 does not "predict" what will happen in the future, but rather provides results of existing condition scenarios and alternative scenarios which can be compared. The purpose of hydrologic modeling is to provide a comparison between existing baseline conditions and alternatives, such that the comparison can be described, analyzed and determined if it is a potentially significant impact on environmental resources. CEQA does not require an analysis of impacts of the environment on the project, but rather the project's effects on the environment. However, this EIR includes analyses beyond the requirements of CEQA using hydrological modeling scenarios at years 2040 and 2070 that consider changes as a result of climate change and sea level rise, realizing an inherent uncertainty regarding climate change and sea level rise where numerous assumptions had to be made to characterize possible future conditions in the 2070 timeframe. Analyses of climate change in the EIR are not limited to the year 2040. Analyses that are based on hydrological modeling mainly focus on 2040 conditions. However, the climate change and sea level rise assumptions used to model 2040 conditions cover a broader period than

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		the year 2040, and as such do not limit evaluations narrowly to 2040. Please refer to Common Response 6 and Common Response 9 for additional detail about the climate change analyses in the EIR and modeling assumptions associated with climate change. Furthermore, the sea level rise assumptions used to model 2040 conditions cover a broader period than the year 2040, and as such do not limit evaluations narrowly to 2040. Because the project alternatives would be operational far into the future, DWR also provided a comparison of climate conditions in an even longer-term future timeframe (i.e., 2070s), although not required to do so by CEQA. These analyses are discussed in Appendix 4A, Consideration of 2070 Conditions, to provide readers with an understanding of whether the type and magnitude of impacts disclosed for 2040 may change under a possible 2070 scenario. As discussed in Appendix 4A, because the cumulative uncertainties associated with climate change, socioeconomic conditions, water demand, and regulatory changes are too complex to reasonably foresee, providing analyses beyond 2070 would not have yielded information useful to the public and decision makers and therefore is not considered. Please refer to Common Response 6 for additional information regarding the comprehensive analysis of climate change contained in the EIR, which exceeds CEQA requirements.
733-22	In the face of climate change, a deeper understanding of available surface water is necessary for the lifespan of this project to be worth the enormous cost. The DEIR must be revised to include modeling of impacts using a range of future climate scenarios. The DCP may very well be a stranded asset in the future. In summer, or times of low surface water, pumping operations can cause reverse water flow in the South Delta. Unnatural water flows can be very disturbing to aquatic species.	Please see response to comment 733-21 regarding modeling, climate change, and evaluation of surface water within the EIR. The EIR fully evaluates flows within the Delta and potential impacts on fish species in Chapter 12, Fish and Aquatic Resources. For example, Impact AQUA-2, in particular the analysis in the section titled Indirect Mortality Within the Delta. The impact is concluded to be potentially significant and is reduced to less than significant with Mitigation Measure CMP (specifically CMP-25), which addresses potential changes in routing of downstream-migrating fish, in particular entry into the interior Delta through Georgiana Slough. Please refer to response to comment 733-69 for additional information regarding the evaluation of Delta passage in the EIR.
733-23	V. Water Supply	Chapter 3, Description of the Proposed Project and Alternatives, identifies

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	The project could result in the potential for increased exports and further reliance on water that moves through the Delta (Ch. 1, p. 50). Increased exports would harm the Delta, which already suffers from current freshwater diversions.	that the Delta Conveyance Project is not proposing to increase the total quantity of water permitted for diversion under existing DWR water rights. The change in the point of diversion applies to the diversion point of the water, not the quantity of water determined by the water right. DWR is not proposing to close and remove all SWP water diversions, as suggested by the comment, from the southern Delta because that would not meet the basic objective of the project. In addition, DWR does not have authority over diversions made by others from the southern Delta. Furthermore, the Delta Conveyance Project Preliminary Proposed Operations Criteria table in Chapter 3, Description of the Proposed Project and Alternatives, describes the criteria under which the North Delta Diversions would operate and identifies specific flows the Sacramento River must meet before the northern diversions could occur. The analysis in Chapter 5, Surface Water and Chapter 6, Water Supply, describes the changes in river flows, reservoir storage, and water supply (e.g., exports) as compared to existing conditions and the No Project Alternative. As discussed in Chapter 5, the changes in flows downstream of the intakes primarily occur in winter and spring months, typically times when there is major concern with flood water levels being too high, and in wetter years when the Delta is in excess. Because the Delta Conveyance project is a dual conveyance project exports from the existing south Delta diversions facilities would continue and are prioritized over the north Delta diversions. The project would operate under existing SWP water rights in the southern and northern Delta. The impact analysis related to flood protection does not require information from water rights to determine potential impacts associated with flooding. Please also refer to Common Response 3, Alternatives Development and Description, regarding information about water rights and the volume of water that would be exported under the Delta Conveyance Project. Please also refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, for information about the change in point of diversion process, and the State Water Board authorities and the general process regarding water rights and the change in point of diversion.

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733-24	The DEIR does not adequately or completely verify that existing SWP/CVP water rights for the Delta shall be transferred from all such facilities in the south to the 2-3 inlets on the north. DWR should verify whether such transfers are within the scope of water rights for the Delta.	Detailed water rights and water supply information is not required to identify potential water supply changes associated with the proposed project and alternatives or to inform impact analyses in other chapters. Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, explains the evaluation of water dependent resources, emphasizing that although CEQA does not include specific guidance to include standalone chapters related to surface water and water supply, the results in these chapters as represented by hydrologic modeling are used to describe potential resource impacts in other EIR chapters. The hydrologic modeling results summarized in these two chapters are used at length to inform the discussion and analysis in the other resource chapters (Chapters 7–32). The resources evaluated in the EIR - those resources that are dependent on understanding and evaluating the changes associated with surface water or water supply under operating conditions (i.e., water-dependent resources), are fully considered. Because the project, as described, would not change water rights for other SWP, CVP or Delta users of water, additional detail requested for water rights is not included in the EIR. This water supply and water rights detail are not relevant to the impact analyses presented in the EIR and would not provide additional support for or clarity about the potential water supply changes associated with the Delta Conveyance Project. As described in Chapter 3, the project is based on the concept of dual conveyance which includes continued diversions made from the south Delta at the Banks Pumping Plant but shifting a portion of those diversions to the new northern intakes. The proposed operations of the project are fully disclosed in Chapter 3. In addition, those operational criteria will be reviewed and approved or potential modified through the ESA, CESA and Change in Point of Diversion processes.
733-25	DWR should provide references within DEIR for the closure and removal of all water diversions from the southern Delta.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights.
733-26	DWR should provide a single table for all water rights including those transferred, those capable under normal Delta flow	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why

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	conditions (first +/-1 standard deviations), and those remaining for flood flow diversions.	additional information regarding water rights is not needed nor required to inform the impact analyses.
733-27	DWR should provide historic flood flow conditions and any records of SWP/CVP capture of unassigned flood flow water rights.	Please see response to comment 733-23 regarding flood conditions and flood flows.
733-28	DWR must adequately compare water rights and flood flows for the proposed project against current SWP and CVP operations.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project, water rights, and flood flows, and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-29	DWR should provide all water rights for the current headworks of SWP/CVP for daily, monthly, and annual flows with and without flood flows.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-30	DWR should provide a coordinated model of water withdrawals for the DCP and all other withdrawals within the Delta for a typical and 3rd-4th-5th standard deviation annual flows.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-31	The DEIR states that the project alternatives “do not include any actions that would modify water deliveries to non-SWP and non-CVP water rights holders, including in-Delta water rights holders. Therefore, only changes to DWR, Bureau of Reclamation (Reclamation), and SWP water users and CVP water service contractors are included. No specific impact assessment results are presented…because the effects of these changes are not considered environmental impacts under CEQA” (Ch. 6, p. 2). DWR’s track record suggests that the DCP will be used to increase water diversions to the contractors. Given that temporary urgent change petitions are handed out almost constantly in drought years, and that the State supports the Voluntary Agreements, which are a bypass of the Bay Delta Plan, DWR cannot say in good faith that the DCP will not modify the water deliveries by volume, as the DCP is	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project.

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	specifically built to increase the capacity to do so.	
733-32	We [Sierra Club California] recommend the following: DWR should provide definitions of "modify", the deliveries, and be specific.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-33	DWR should provide a list and allocated volumes for non-SWP and non-CVP water rights holders, including in-Delta water rights holders.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-34	As the DCP is reported to provide protection and assurance of water supplies to the SWP and CVP, DWR should provide a listing of how changes would occur due to DCP actions for SWP and CVP users.	Please see responses to comments 733-23 and 733-25 regarding the operation of the Delta Conveyance Project and water rights and why additional information regarding water rights is not needed nor required to inform the impact analyses.
733-35	DWR should provide definitions and citations for Water rights and Flood Flows (and any related rights to divert and use).	Water rights, flood, and 100-year flood and 200-year flood, are defined in Chapter 38, Glossary. Flood flows are further defined and discussed in Chapter 7, Flood Protection.
733-36	According to the DEIR: "SWP includes acquisition of water from the Delta and others before conveying it to users. DWR and Reclamation operate the SWP and the CVP, respectively, to divert, store, and convey water consistent with applicable laws and regulations, and contractual obligations for agricultural, urban, and environmental beneficial uses in the Sacramento River Basin, the Delta, and south of the Delta. FN 1 The SWP and CVP will continue to be operated in accordance with D-1641 until a new water rights decision is adopted by the State Water Board" (Ch. 6, p. 11). We recommend that DWR provide citations and page/paragraph references for D-1641 and provide basis and DCP-related issues that would require new water rights decisions.	D-1641 is cited as appropriate throughout the EIR, including in Chapters 5 and 6. D-1641 is also defined in Chapter 38, Glossary. DWR must secure a change in their existing water right to allow diversion of water from the north Delta into the project intakes. This process is described in Chapter 1 and expanded upon in Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs.
733-37	Reclamation coordinates operation of CVP in the Delta with the SWP in accordance with the water rights permits issued by the	The Delta Conveyance Project would not include changes to the Coordinated Operations Agreement that would require detailed disclosure

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	State Water Board and the Coordinated Operation Agreement (Ch. 6, p. 2). Reclamation operates the CVP under water rights granted by the State of California, including those intended to protect agricultural and fish and wildlife beneficial uses in the Delta. In most years sufficient supplies are not available to meet all water contractor demands because of statutory, regulatory, and water rights requirements (Ch. 6, p.19). In some dry or critical years, water deliveries are limited because there is insufficient storage in northern CVP reservoirs to meet all statutory, regulatory, and water rights requirements including water temperatures, and to make additional water deliveries. DWR must substantiate these statements by providing the following: ● Provide details of flood flows, supplies demands, deliveries, rights, dry and critical years. ● Provide definitions and legal sources. ● Provide a flow model as to all Delta and tributaries typical monthly flows and water users. ● Provide operational model runs include demands, storage, and rights for both “normal flows” and flood flows. ● Provide definitions of “insufficient,” “sufficient,” and contracts assigned along with model operations for the median flows years.	of COA or coordination of SWP and CVP Delta water supply diversions. Details regarding changes in surface water and water supply have been fully evaluated using CALSIM 3, DSM2 and other models as presented in Appendix 5A, Modeling Technical Appendix. This appendix and the modeling results are provided to summarize surface water and water supply results under the range of hydrologic conditions, in average, wet and dry water year types, that could occur during operation of the Delta Conveyance Project. Please also refer to Common Response 9, Hydrologic Modeling and Approach for additional explanation about the modeling approach for the EIR.
733-38	VI. Flood Protection The DEIR lacks data that represents what is happening now, basing flood risks on historical data from 1957, or 2007 to 2016. The DEIR focuses on annual versus event data and long-used definitions of 100-year and 200-year floods. Considering that the DCP will take until at least 2040 to complete construction, with climate change and changes in weather patterns advancing, there needs to be greater focus on forward, leading-edge scientific data like that presented in	The EIR provides impact analyses of the environmental resources raised by the comment, including flooding in Chapter 7, Flood Protection. The EIR uses best available data and methods at the time of the NOP, as described in Common Response 1, CEQA Process, General Approach to Analysis and Other Environmental Review Issues. Chapter 7 determined impacts on flood protection are less than significant or less than significant with mitigation. EIR analyses in Chapter 7 are focused on impacts of the proposed project and alternatives on flood protection. Information on existing Delta flooding provided in the setting section is used to determine

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	Xingying Huang and Daniel L. Swain's 12 August 2022 Science article, “Climate change is increasing the risk of a California megaflood.”	if the project could change flooding conditions. In addition, Appendix 7A, Flood Protection 2040/2072 Analysis, for an evaluation regarding future conditions with climate change, including consideration of sea-level rise, and potential flooding effects. In addition, please see Common Response 6, Climate Resilience and Adaptation, regarding climate change requirements and analyses in the EIR and analyses which considered sea-level rise. Please refer to Chapter 4, Framework for the Environmental Analysis, for additional information regarding the EIR’s approach to analyzing climate change impacts. In addition, as demonstrated in Chapter 5 Surface Water and supporting appendices, operating the project would not affect upstream hydrologic conditions or the flood protection provided by upstream reservoirs or flood control facilities.
733-39	State monies should be focused on repairing, protecting and investing in levees and flood protection before they are undermined by tunneling. DWR must review all of the estimates of sea level rise in the San Francisco Bay and the Delta used in the DEIR to make sure that they reflect the very latest reports.	Please see response to comment 733-38regarding sea-level rise.
733-40	We may not yet have had an event like the 1861-62 statewide California flood, but already in 2022, during a statewide, extreme drought, there have been several flood events in the deserts of southeastern California. Storage facilities in Southern California for the 2022 monsoon could have helped increase available water to SWP areas of MWD.	The comment does not raise a significant environmental issue relating to the proposed project or address the adequacy, accuracy, or completeness of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. In addition, please see response to comment 733-38 regarding flood protection and climate change.
733-41	The intakes are scheduled to be permanent structures, with fish screens, that will be situated in the Sacramento River (Ch. 7, p.7). There is no mention of river debris accumulating on the intake structures resulting in an increase in the high water level. This will be significant. With increased rain, the report does not acknowledge the debris being carried in the stream flow. Some consideration must be made of this increased debris flow. The accumulation of this material on the project	The Delta Conveyance Design and Construction Authority Engineering Project Report, North Delta Intake Facilities Configuration, Construction, and Operations Technical Memorandum describes design and operational provisions and activities required for sediment management and debris buildup. Sediment and debris management for tee screens is not the same as for dams of other types of intake facilities. Note that the bottom elevations of the proposed tee screens are located several feet above the normal river bottom, and should be higher than the expected moving bed

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	intakes will retard the river flow and cause the water level to rise.	elevation at each intake site, even during flood flow periods. In addition, as explained in Chapter 3, the intake structures would be located along the bank of the Sacramento River. Surveys conducted to date following high flow events, indicate that the river bottom elevations can vary plus or minus several feet in the intake reaches, but such variation does not appear to encroach on the proposed screen locations. Proposed debris fenders and log booms, similar to those used at other intakes and marinas along the river, will deflect the majority of the debris without intervention. However, in rare cases, human intervention may be required to remove debris. Any major debris would be removed as river conditions allow. Screen cleaning cycles would likely be increased during high flow events. Water level differential sensors would be used to monitor cleaning cycles and operations. If operational design set limits are exceeded, the screen units and associated gates would be closed for protection of the facility, as necessary. Suspended sediments would pass through the intake screens and be deposited in the sedimentation basins as described in the Engineering Project Report and EIR. Sediment dried and removed from the intake sedimentation basins during maintenance would be disposed of at appropriately permitted waste disposal facilities. Sediment that may accumulate in front of and below the tee screens (in the river), although unlikely, would be jetted to help keep the material in suspension and prevent excessive accumulation under the screens. The frequency of this jetting would be adjusted as necessary during high sediment/debris events. In the event of an abnormal accumulation of sediment, emergency dredging may be required and is described in the DCA TM referenced above.
733-42	According to the DEIR, the project alternatives do not include any changes in flood control operations, therefore, the operations of project alternatives would have “no impacts on flood protection upstream of the Delta, and the level of flood protection under project alternatives would remain the same” (Ch. 7, p. 26). However, elsewhere in DEIR alternatives and	The proposed project is not a flood control project and does not include any changes in flood control operations, but it has been designed to ensure that intake structures on the Sacramento River and modifying flood control levees would not reduce the protection afforded by the existing flood control system, as described in the Delta Conveyance Design and Construction Authority Intake Flood Management Technical Memorandum

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	their inlets are established to drain some flood waters from the Sacramento River and divert them to the SWP/CVP and thereby affect flood conditions within the Delta. DWR should provide estimates of any and all expected diversions of flood waters to the SWP/CVP from all such program facilities and operations in the Delta and lower Sacramento River drainage (e.g., within 10 miles of Delta).	and the Levee Vulnerability Assessment Technical Memorandum.
733-43	The Delta's levees are threatened by the active seismic zones west of the Delta, including the San Andreas and Hayward faults, and less active faults, such as the Southern Midland Fault, underlie the Delta. The DEIR argues that a strong earthquake could damage Delta levees because of the potential for deformation or cracking of levees or the liquefaction of levee embankments and foundations during strong ground shaking. Moderate earthquakes between 1979-1984 damaged nearby Delta levees, and many Delta islands' levees failed during floods within a year after the 1906 San Francisco earthquake (Delta Stewardship Council 2020:7). The DEIR claims that if a levee failed on an island subsided below sea level or during high flows or if a flood were to occur soon after an earthquake, the protected area could be inundated. (Ch.7, p. 22). DWR must clarify these statements by providing definitions for terms, including: "threatened", "active", and "less active", "strong earthquake" (=>6, >7 or >8 Movement Magnitude), strong ground shaking, and ground acceleration.	The design of the project to address seismic and flooding risk is required by DWR criteria as well as a host of other government requirements. Please refer to Chapter 4 for the environmental analysis, which discusses the Engineering Project Reports (EPRs) (EPRs are provided online: https://www.dcdca.org/info-center/document-library/#Engineering-Project-Reports). The EPRs provide a summary report and associated technical memoranda, engineering concept drawings, and GIS used to develop conceptual project plans. Future investigations (i.e., geotechnical studies) will be conducted during pre-construction and construction phases and based on the specific project element and the environmental conditions, the site-specific design will be finalized. Final designs will include and conform to applicable government codes and safety standards and will be used to identify appropriate construction methods included to ensure the conveyance facilities would withstand a design level catastrophic event. Chapter 10, Geology and Seismicity, provides an assessment of impacts that could result from construction, and operation and maintenance of the Delta Conveyance Project. As described in the chapter, all project alternatives vary with respect to the location of a given impact mechanism, however all the alternatives have similar impact mechanisms and magnitudes. All impacts associated with the Delta Conveyance Project described in Chapter 10 were determined to be less than significant and no mitigation is required. Please also refer to CR1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's resilience against earthquake risk.
733-44	Additionally, the DEIR must include seismic response	Please see responses to comment 733-43 regarding project design.

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	comparisons and typical design mitigation measures for levees (height, width, internal barriers, and slope protection) against the DCP, including tubes, shafts, pumps, and substations. Finally, the DEIR should include monitoring and locating of seismic events within 20 mi of the DCP for 2023-2030 as a mitigation measure for all tunnel alternatives.	
733-45	Elsewhere in this chapter, the DEIR makes statements without providing definitions of its terms or adequate comparison to a No Tunnel Alternative. For example, it states "the study concluded that a major earthquake of magnitude 6.7 or greater in the vicinity of the Delta Region has a 62% probability of occurring sometime between 2003 and 2032 (California Department of Water Resources 2009:2). More recent investigations suggest earthquake-induced ground shaking affecting Delta levees may be less serious but still worrisome (Delta Stewardship Council 2020:7). Although the probabilistic nature of earthquake prediction makes it difficult to quantify the timing and magnitude of seismic threats, it is important to address the threats posed by earthquakes to the Delta levee system because of the potential adverse effects of such events." (Ch. 7, p. 23). DWR should revise the DEIR to provide definitions and comparisons of active and major earthquakes, define "vicinity", and provide analysis of a No Tunnel Alternative.	Chapter 10 provides a discussion of active faults and the potential for earthquakes. Please see the Environmental Setting section in Chapter 10 for a discussion of relevant geologic and seismic terminology. Definitions of terminology not used in the chapter are not necessary. The level of detail in the environmental setting need not be greater than necessary to understand the significant effects of the project and its alternatives; the chapter adequately characterizes the seismic setting and discloses the seismic risks to meet the needs of CEQA.
733-46	The DEIR states, "Delta island subsidence resulting from the biochemical oxidation of organic soils and wind disturbance could pose a significant threat to Delta levees. The areas that are most susceptible to subsidence are the central, western, and northern Delta, where thick organic peat layers predominate (Public Policy Institute of California 2008:9)." (Ch. 7, p. 1, 23). For the proposed Delta Conveyance alignments, organic soils are only one part of the overall subsidence system	The comment's requested information regarding wind disturbances in the Delta and a comparison of Delta subsidence/settlement due to compaction by gravity and dewatering vs. oxidation of organic materials is outside of the scope of the analysis for the Delta Conveyance Project. DWR recognizes that subsidence has occurred within the Delta, and as such will install monitors during construction near levee construction sites and levee crossings of the tunnel alignment to determine if subsidence occurs as a result of project construction. Please see response to comment 733-54

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	and very little LiDAR survey findings have been conducted or provided for review. With gravity compaction of densifying soils and sediments, increasing densities of overlying materials squeezes groundwater from the deeper fine sediments and with their densification, overall sediment column compacts and soil surface subsides.	regarding peat soils and oxidation.
733-47	We [Sierra Club California] recommend the following: DWR should provide the definition and related records for wind disturbances in the Delta including all wind direction, velocities, and durations and computer models for wind effects on exposed levees within the Delta. Provide records of all reportedly wind damages to Delta levees.	Please see response to comment 733-46 regarding information related to wind disturbance.
733-48	DWR should provide definitions and comparisons of delta subsidence/settlement due to compaction by gravity and dewatering vs oxidation of organic materials. Also include influences of widespread production/removal of natural gas from all units beneath the Delta.	Please see response to comment 733-46 regarding information requested related to subsidence/settlement.
733-49	The Delta area has many abandoned gas fields and fewer storage fields within or under the DCP vicinity, and their long-term production (>20 years) may have generated collapse/subsidence of deeper grounds beneath the DCP area. DWR should provide records of all gas fields and storage facilities and for all wells within 10,000 ft of the DCP facilities.	Analyses of effects on Delta gas wells is provided in Chapter 27, Minerals which determined that the proposed project and alternatives would have no impact on gas wells or accessibility to gas fields in the Delta and the project would be designed to avoid abandoned gas wells.
733-50	DWR should provide mitigation measures for a widespread LiDAR ground surface monitoring of all shaft and tunnel sites/alignments and within 5,000 ft of both.	Please refer to Common Response 1 regarding the CEQA requirements for mitigation measures and the implementation of feasible mitigation measures throughout the EIR to minimize, reduce, or avoid potentially significant impacts. Please also see Common Response 1 regarding the scope of analysis contained in the EIR, which is based, in part, on reasonably foreseeable impact mechanisms. The EIR includes a variety of monitoring throughout mitigation measures (e.g., Mitigation Measure GW-1) and environmental commitments, which are appropriately included and

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		evaluated in the EIR.
733-51	Reviews and assessment of land subsidence is incomplete and inadequate and requires major revisions and documentation. DWR should provide an updated and comprehensive model of all factors contributing to the subsidence beneath the DCP area and possible changes of levees, roads, bridges, and other surface features elevations.	All of the information needed to evaluate potential geology and seismicity impacts from the proposed project and alternatives is included in Chapter 10. Definitions of additional terms are not required to understand the analyses and conclusions of this analysis. References of the studies and information used for this analysis are included in the references section. The project would not change Delta land subsidence because the project would not affect the processes occurring that create land subsidence in the Delta.
733-52	According to the DEIR, as the landside ground elevation decreases because of subsidence, the resulting increase in elevation difference between the water surface and ground provides increased hydraulic loading on the levee and its foundation and associated risks related to seepage, piping, and slope instability. Recently, projects have been implemented in the western Delta for subsidence reversal, carbon sequestration, or both (California Department of Water Resources 2022b). (Ch. 7, p. 1 and 23). DWR should provide additional evidence and modeling on this topic, including: - A model for numerical and hydrostatic pressure conditions and changes anticipated during the life of the Project. - Listings of gas wells, operations (active, idle, abandoned, etc.), current status, and their productions and field pressures by well and by field within 5000 ft of tunnel alignment. - A description and model for future development for CO2-gas injection and long-term storage for CO2 and other available gases. -A timetable and significance of such programs for stabilizing or elevating current trends of subsidence.	Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the length and complexity of the EIR. As discussed in Common Response 1, the EIR was written and organized consistent with CEQA with an emphasis on clearly and adequately disclosing the project's potential environmental impacts to assist public, agency, and decision-maker review of the EIR. Chapter 10, Geology and Seismicity, provides an assessment of impacts that could result from construction, and operation and maintenance of the Delta Conveyance Project. As described in the chapter, all project alternatives vary with respect to the location of a given impact mechanism, however all the alternatives have similar impact mechanisms and magnitudes. All impacts associated with the Delta Conveyance Project described in Chapter 10 were determined to be less than significant and no mitigation is required. Please also refer to CR1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's resilience against earthquake risk.
733-53	According to the DEIR, "Ongoing and continuous levee maintenance and monitoring would be critical to reducing flood risk at the shaft sites during project construction and	The project has been designed to ensure that intake structures on the Sacramento River and modifying flood control levees would not reduce the protection afforded by the existing flood control system. The analysis

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	would be closely coordinated with the reclamation districts. It is anticipated that levee maintenance agencies would continue making levee improvements to maintain geometric standards after repairs are completed and as sea level rise can be expected to increase in the future." (Ch. 7, p. 49). DWR understands the importance of levee maintenance, reconstruction, and monitoring for quickly identifying vulnerabilities in or damage to levees during DCP construction. However, the DEIR does not document any commitment by DWR and partner contractors for defense, indemnification, and holds harmless affected reclamation districts against all claims, liabilities, charges, losses, expenses, and costs (including their attorneys' fees) that may arise from the DCP. Such statements must be made as part of the project description. Further mitigative analysis must confirm that state funding for the DCP will back such local mitigations by others, and that such activities by others will not impose a new burden on the local Reclamation Districts.	concludes that the construction and operation of the project would not result in a reduction in flood protection provided by the existing levee system. As described in the Process and Method of Review for Impeding or Redirecting Localized Flood Flow section of Chapter 7, Flood Protection, and in the Local Water Supply, Drainage, and Utilities section of Chapter 3, Description of the Proposed Project and Alternatives, the location and capacity of existing drainage and irrigation facilities that may be affected by construction of the Delta Conveyance Project would be determined and the capacity of this infrastructure to convey drainage or irrigation water would be maintained. Additionally, as noted in the discussion of Impact FP-2 in Chapter 7, a review of the drainage systems will be performed to assess the impacts of tunneling operations, dewatering, and drainage as part of the final design. The issue raised in the comment does not relate to physical effects the project may have on the environment but instead relates to property agreements that DWR may enter into with local reclamation districts. The specifics of these agreements will be negotiated as appropriate. The project would not significantly impact levees maintained by Delta Reclamation Districts, as indicated in Chapter 7, Flood Protection. Levees in the vicinity of project features would continue to be maintained following construction in a manner consistent with current practices. During the design phase of the project, after a project is approved, DWR will coordinate with the local reclamation districts in the vicinity of the project footprint regarding the design of the levee improvements identified as part of the proposed project. Chapter 7 text referenced by the comment regarding ongoing and continuous levee maintenance and monitoring acknowledges that there are numerous levee monitoring and maintenance activities currently implemented by various entities, including Reclamation Districts and DWR itself, within the Delta as described by the Central Valley Flood Protection

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		Program. These numerous activities would be expected to continue with or without the approval and implementation of the Delta Conveyance Project because, with or without the project, levee monitoring and maintenance is needed in the Delta. The Delta Conveyance Project would not change DWR's flood control authorities or responsibilities within the Delta. DWR will install monitors during construction near levee construction sites and levee crossings of the tunnel alignment to determine if subsidence occurs and take corrective actions should they become necessary. As described in Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, DWR has a role and responsibility along with local governments and special districts to maintain and improve levees that protect the Delta.
733-54	VII. Groundwater The treatment of peat oxidation is inconsistent in the DEIR. For example, it states, "Declining land surface elevations in the Delta are well documented and a major source of concern for farming operations. The oxidation of peat soils is the primary mechanism of sinking lands in the Delta (U.S. Geological Survey, 2000), and some areas are below sea level. In portions of the San Joaquin Valley groundwater basin, drops in land surface elevations have occurred as a result of excessive groundwater pumping, below the Corcoran Clay (a regional aquitard) or below other regionally significant clay layers (the predominant mechanism for subsidence in this area). Land subsidence occurs as the result of the compression of the Corcoran Clay and other fine-grained units where groundwater that supports the aquifer framework has been removed by pumping." (Ch.8, p.12). Elsewhere, peat oxidation is only mentioned and not considered lesser than that of groundwater dewatering beneath various clay layers. Gas production and	Chapter 11, Soils, Impact SOILS-3, provides an assessment of the potential for subsidence in the study area resulting from constructing and operating the project. The analysis determined that hazards attributable to subsidence are considered less-than-significant impacts of the project. Chapter 8, Groundwater, Impact GW-6, addressed subsidence as a result of dewatering activities and concluded, similar to the analysis in Chapter 11, that such activities would not result in significant impacts. Additional details regarding the geotechnical and soil considerations can be found in the Engineering Project Reports associated with the project (Delta Conveyance Design and Construction Authority 2022a, 2022b). As described in the Engineering Project Reports, slurry walls, which would be constructed to state standards, would limit reduction of external groundwater levels during internal construction dewatering activities and limit mounding of water external to the walls during operations when basin levels are higher than the surrounding groundwater levels as described in Common Response 10, Surface Water Quality and Groundwater Resources. Diaphragm walls or slurry walls would be installed prior to construction of the vertical tunnel shafts. Then, the bottom of the tunnel shaft would be installed to seal the tunnel shaft from the surrounding groundwater aquifer.

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	storage facilities near and beneath the DCP alternatives are similar to production of waters from regional aquitards/clay layers. DWR should provide known areal distribution of the Corcoran and other significant clay aquitards within the DCP alternative zones of influences.	Dewatering at the tunnel shaft would only occur once at the end of the shaft construction and would be limited to the groundwater within the shaft. Excessive pumping that could result in subsidence will not occur. The shaft would remain impermeable to groundwater intrusion throughout tunnel construction and operations. Existing geotechnical information and data were reviewed during preparation of this EIR to perform preliminary evaluations of seismic, liquefaction, ground improvement, and dewatering considerations for the planning phase and EIR preparation. Geotechnical, soils, and additional field work investigation would be completed during the design phase of the adopted project prior to completion of the geotechnical and seismic design. Chapter 25, Hazards, Hazardous Materials, and Wildfires, includes figures mapping locations of oil and natural gas wells and processing facilities within the construction footprints to assess the relative risk of disturbing a well or encountering petroleum products or processing chemicals in soil or groundwater. Chapter 27, Mineral Resources, evaluates the impact on natural gas wells and concludes that none of the project alternatives would have an impact on natural gas wells due to construction or operations.
733-55	VIII. Water Quality Evaluation of the impacts of the No Project Alternative on water quality is speculative and must be revised. The analysis focuses on "identifying the additional water-supply related actions public water agencies may opt to follow if the Delta Conveyance Project does not occur" (Ch. 9, p. 38). What follows is a list of possible types of projects, speculation about which regions of California may construct them, and a narrative description of possible impacts of these projects on water quality. The analysis does not include quantifiable pollution levels or risks that would allow for comparison to the	The actions identified in the No Project Alternative are not speculative and are based on facts or assumptions predicated on facts. Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, explains how DWR developed the potential actions that PWAs could take in the absence of implementation of the Delta Conveyance Project that are evaluated in the chapters. Appendix 3C provides descriptions and evidence of the existing and proposed desalination projects assumed to occur in the northern and southern coastal regions; as noted in that appendix, projects currently in development or in exploratory phases are outlined in the most current Urban or Agricultural Water Management Plan for each of the water agencies in the various regions. These plans formed the basis for the assumptions regarding projects most

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	tunnel alternatives, and does not include a description of how the Delta region would be impacted by this alternative. The DEIR must be revised to provide this additional analysis. The DEIR must also be revised to provide a true No Tunnel Alternative which analyzes how California can meet its water reliability needs through a combination of water conservation, sustainable groundwater storage and management, increased water reuse and recycling, and stormwater capture. It should prioritize projects that will have avoidable or mitigable impacts, provide a comparison of the water quality impacts of implementing recommended regional water projects, and include analysis of the impacts to the Delta ecosystem from reducing SWP deliveries.	likely to be pursued. Please refer to Common Response 4, No Project Alternative Description and Analysis, regarding reasonably foreseeable actions that are considered part of the No Project Alternative, which include additional water conservation programs, water recycling projects, groundwater recovery projects, desalination of seawater or brackish groundwater, surface water storage, groundwater management, or water transfers and exchanges, that may be pursued by a variety of local, state, and federal agencies. In addition, DWR modeled the No Project Alternative with climate change assumptions. Appendix 9L presents modeling results for the project alternatives at 2040, compared to the No Project Alternative at 2040, and shows the project alternatives would not cause more frequent exceedance of Bay-Delta Water Quality Control Plan objectives for electrical conductivity (EC) and chloride, among other constituents. Furthermore, Appendix 9L demonstrates that the impact conclusions do not differ from those identified in Chapter 9, Water Quality (at 2020 conditions) for all impacts (Impacts WQ-1 through WQ-17), which includes bromide, chloride, EC, dissolved oxygen and cyanobacteria harmful algal blooms (which are affected in part by water temperatures). Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws. The DWR followed CEQA requirements when identifying alternatives to be considered for evaluation in the EIR. As described in Common Response 3, Alternatives Development and Description, CEQA requires lead

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		agencies to develop project objectives to inform the identification of the project and a reasonable range of potentially feasible alternatives. CEQA does not require consideration of every variation of every alternative; CEQA requires an EIR to include a reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen one or more of the significant effects of the project. Common Response 3 provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. The project is one part of a diverse portfolio of strategies needed to meet California's overall water management needs. It is not a substitute for increased commitments to other water supply solutions, including recycling, desalination, water conservation and storage. Alternatives that would reduce water supply reliability were determined to not meet most of the basic project objectives. Because the Delta Conveyance Project relies on dual conveyance, flow through the Delta to the south Delta export facilities would continue, if DWR approves the project. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives screening process and the range and scope of alternatives considered.
733-56	IX. Geology and Seismicity DCP infrastructure will be vulnerable to any seismic events or changes because it is unpredictable how it will be affected by possible shifts in the extremely deep sediments of the Sacramento Valley. The Valley is not cut by the river; it is formed by deep faulting with the hinge lying some 2,500 ft below the surface.7 Drs. Eldridge Moores and Thomas Holzer are experts worth consulting on this issue. The Seismic Summary goes into great detail of the studies and assessments that have been reviewed and created. DWR should include further discussion of the potential for soil liquefaction of	Chapter 10, Geology and Seismicity, is written at a level of detail appropriate to CEQA and contains the information essential to understanding the seismic-related impacts. Chapter 10 provides substantive evidence to support the findings related to geology and seismicity. As noted in the section titled Regional and Local Seismicity, the Delta is in one of the most seismically active areas in the United States. The chapter therefore provides a robust description of the geologic and seismic hazards in the study area. The impact analyses are presented in Impacts GEO-1 through GEO-6. These analyses were based on critical review and use of the EPRs narrative reports, associated technical memoranda, and information published by various regulatory agencies, researchers, and consultants, including the California Geological Survey, the U.S. Geological

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	earthen levees that make up much of the containment of the Delta waters. A major seismic event would affect delivery of water to the south, destroying one of the three major objectives of this proposal. The Delta is at or below sea level and any significant levee failure would cause a major flow of San Francisco Bay water into the Delta.	Survey, and the Working Group on Northern California Earthquake Potential 2012. The vulnerability of existing levees to seismic hazards is described in Chapter 10 and the Levee Vulnerability Assessment technical memorandum (Delta Conveyance Design and Construction Authority 2022d). The Conceptual Tunnel Lining Evaluation and Liquefaction and Ground Improvement Analysis technical memoranda also addressed design criteria related to seismic risks (Delta Conveyance Design and Construction Authority 2022a, 2022e, 2022f). Common Response 1 describes the performance of the objectives and those objectives related to seismic activity.
733-57	The DEIR must be revised to include additional evidence to support the statement that, “both the peat and organic mineral soil types are well above what would be the main tunnel invert elevation (i.e., -143 feet to -…163 feet…for the tunnel from the intakes to the proposed new Southern Forebay Inlet Structure and -145 feet to -164 feet…for the tunnel between Twin Cities Complex and the Bethany Complex)” (Ch. 10, p.7). DWR must provide a typical expected geologic/soils column including the expected tunnel and shaft depths and zones of influence by the same beneath the DCP facilities. It must also include identification, listings, and locations on drawings/maps for any piling for shafts and inlets related to the DCP. Finally, it should provide standard tunnel and shaft sections (>-140 feet elevation amsl) for every 10 miles of DCP length and shafts.	Please see response to comment 733-54 regarding peat soil. The EIR impact analysis in Chapter 10, Geology and Seismicity, is supported by substantial evidence using methodologies described in the Methods for Analysis section. Chapter 10 concludes that construction and operation of all facilities would meet all required standards for earthquake safety. Please also see Common Response 1 regarding the resilience of the project in the event of an earthquake and the use of best available science in the EIR. The comment requests a variety of borehole/geotechnical information (subsurface geotechnical data). Geotechnical data as it relates to CEQA can be found in the impact analyses in Chapter 10, Impacts GEO-1 through GEO-6. These analyses are supported by information presented in the EPRs and in the technical memoranda prepared for the project, such as the Conceptual Design Phase Seismic Site Response Analysis technical memorandum and the Liquefaction and Ground Improvement Analysis technical memorandum (Delta Conveyance Design and Construction Authority 2022b, 2022i). As described in the and Potential Future Investigations—Bethany Reservoir Alternative and Potential Future Field Investigations—Central and Eastern Corridor Options technical memoranda (Delta Conveyance Design and Construction Authority 2022j:4, 2022k:4), "Soil borings, overwater soil borings, and CPTs would be conducted within the construction boundaries of the intakes, tunnel shafts, tunnel

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		alignments, access roads and bridges, levees, pumping plant, and the entire Southern Complex on Byron Tract and west of Byron Highway." These additional soil data will be used to develop detailed soil profiles, geotechnical cross sections, and engineering properties along the tunnel alignment and at facility locations. Locations of piles, diaphragm walls, cutoff walls, and other foundation features are presented in the Engineering Concept Drawings in Volume 2 of the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022r, 2022s). It should be noted that all piles will be started as vibratory or drilled piles. Pile driving would occur only when other methods could not be used to insert the pile to the proposed final design depth. Detailed seismic analyses for the project features will be performed for the selected project alternative during the design phase, including seismic responses of connections between different structural elements. The design will be carried out in conformance with the applicable design standards, building codes, and regulations.
733-58	The seismic hazard in the Delta has significant uncertainty because of the difficulty in characterizing the activity of Delta faults. Citing Bay Area probabilities reminds the reader that parts of California will have significant large earthquakes in the near term, but does not add much to the understanding of seismic hazards in the Delta. The risk from the West Tracy Fault, a major potentially active fault, is proposed to be explored late in the pre-construction period. This belated investigation is a concern given the potential for the fault to expose the DCP to substantial seismic risk (Ch. 10, p. 10-46, lns. 30-34). The West Tracy Fault along with other, potentially active, faults in the Delta are the primary seismic threats to levee stability. Estimating their activity is challenging but essential to evaluating the seismic hazard in the Delta and the	Chapter 10, Geology and Seismicity, provides the substantial evidence supporting the impact determinations related to the tunnel and other project facilities' seismic design requirements, subsurface geotechnical and geological conditions, the West Tracy Fault, and general geologic and seismic hazard. The following text directs the reader to the data used in the analyses presented in Chapter 10 and explains why this data is sufficient for the purposes of CEQA. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of why it is appropriate to evaluate impacts at a conceptual design level. For characterization of Delta faults, a detailed seismic hazard study for the Delta region is presented in Attachment 1 of the Conceptual Design Phase Seismic Response Analysis technical memorandum (Delta Conveyance

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	risk to levee stability.	Design and Construction Authority 2022b). This study considered uncertainties in regional faults and used the most recent (as of 2022) seismic fault and ground motion predictive models, including the most recent characterization of West Tracy Fault. The impacts associated with surface fault rupture of the West Tracy Fault are presented in Impact GEO-1. The impacts associated with surface fault rupture of the West Tracy Fault are presented in Impact GEO1. Further detail is provided in the West Tracy Fault Preliminary Displacement Hazard Analysis technical memorandum (Delta Conveyance Design and Construction Authority 2022t). Little is known about the fault; however, if required, numerous proven designs and construction means and methods to safely build a tunnel through fault zones are available. Possible designs and construction means to accommodate displacement on the fault and to withstand the change in pressure are described in the Conceptual Tunnel Lining Evaluation technical memorandum (Delta Conveyance Design and Construction Authority 2022d:5). These could include over-excavating the tunnel in the zones of a fault crossing, and backfilling with compressible/collapsible material, using steel segmental lining, and using doweled or bolted joint connections. The design will be refined as data from additional investigations are received.
733-59	DWR should provide definition of risks, late, and pre-construction period of all major faults referenced in DEIR and provide exploration prior to finalizing the EIR. Provide “belated investigation” as part of the DEIR for public review and comment as related to tunnels, shafts, levees, and existing SWP works.	Please see the Environmental Setting section in Chapter 10 for a discussion of relevant geologic and seismic terminology. Definitions of terminology not used in the chapter are not necessary. The level of detail in the environmental setting need not be greater than necessary to understand the significant effects of the project and its alternatives; the chapter adequately characterizes the seismic setting and discloses the seismic risks to meet the needs of CEQA. For these reasons and because the commenter does not raise any significant information, recirculation is not necessary (refer to Common Response 1 regarding recirculation requirements of CEQA, of which the project does not meet).
733-60	As no belated studies are included in the DEIR, and are pivotal to both levees and the DCP, DWR should provide such studies	Please see responses to comments 733-56 through 733-59 regarding the type of information contained in the EIR and the adequacy of the

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	as part of the DEIR and recirculate a subsequent/supplemental DEIR.	information to disclose the type and magnitude of potentially significant environmental impacts to decision makers as well as the field studies that would occur prior to construction and final design.
733-61	DWR should provide all known seismic monitoring data for the DCP area and 5 mi/26,000 ft either side of the tunnel alignments, shafts, and inlets. Therefore DWR should have established seismic monitoring stations 10 years ago when starting the review of the Delta, and await results of such studies and analyses before issuing a supplemental DEIR.	Please see responses to comments 733-56 through 733-59 regarding the type of information contained in the EIR and the adequacy of the information to disclose the type and magnitude of potentially significant environmental impacts to decision makers as well as the field studies that would occur prior to construction and final design.
733-62	Average tunnel utilization is small, relative to its maximum conveyance capacity. A review of the report and the data provided by DWR shows that, for Alternative 5, the North Delta exports occur largely in December through March. But even in these months, tunnel utilization is below 40% in 50% of years (Figure 3). This result raises questions about optimal tunnel sizing. DWR should: - Provide definition and explanation of tunnel utilization, small-medium-large, largely, and below 40% in half of the years. Provide explanation and definition of all SWP water rights, rights to flood flows (typical-seasonal and/or stored/released). - Provide monthly DCP flows for typical design year, modal, and 3rd standard deviation flows for current intake facilities and all proposed DCP alternatives. - Provide winter flood flows and 25 year flows.	It is unclear how the requested tunnel capacity, operational inflows, winter flood flows, and water rights-related information relates to Chapter 10 or its adequacy under CEQA. However, the tunnel capacity analysis is presented in the Capacity Analysis for Preliminary Tunnel Diameter Selection Technical Memorandum (Delta Conveyance Design and Construction Authority 2022a). Tunnel flow velocities and corresponding hydraulic head loss and transient-surge conditions were examined within the project diversion flow range to establish a range of technically feasible candidate tunnel diameters, including their effects on other project feature configurations (i.e., size and operating depths of hydraulic structures). A construction cost comparison was also conducted as part of the analysis. The technical memorandum made conclusions and recommendations based on the results of the hydraulic and capacity analysis of the tunnel diameters options and the construction cost comparison. Please see the Chapter 3 section titled Integration of North Delta Intakes with South Delta Facilities for a discussion of water rights. Please also see Chapter 2, Purpose and Project Objectives, for a general discussion of project objectives and Chapter 6, Water Supply, for a detailed discussion and analysis of project effects on water supply in the area.
733-63	X. Soils According to the DEIR: “Overall, the alternatives would be constructed on near-surface soils having very similar water	Near-surface soils are those in the upper portion of the soil profile. Descriptions of soil characteristics can be found in Appendices 11A, 11B, and 11C. Appendix 11A, Soil Associations, describes the context of the soil

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	erosion and wind erosion hazards. Although the southernmost portion of Alternative 5 is in an area where the near-surface soils have a slightly higher water erosion hazard than that of the soils of the other alternatives, this would be offset by the fact that the disturbance area and therefore the area of potential erosion is less because no Southern Forebay would be constructed under Alternative 5." (Ch.11, p.1). DWR concludes that the overall potential impact of accelerated water and wind erosion would be similar among the alternatives. (Ch.11, p.1). DWR must substantiate these claims by providing: - A definition of "near-surface soils" - Comparisons of surface and near-surface soils and tunnel muck water and wind erosion hazards once dried out characteristics for lower, medium, and higher erosive hazards. - Provide numerical/quantified comparisons of all alternatives, as required by CEQA. - Provide comparisons of water/wind erosion hazards for discharge facilities of all alternatives within 5 miles of alternative southerly terminations.	associations in the landscape and summarizes their general characteristics. Appendix 11A also shows which detailed soil map units occur in each association in the study area. Appendix 11B, Soil Map Units, Taxonomic Classifications, Soil Limitations, and Risk of Corrosion, provides detailed soil map unit names and the soils' suitability for certain uses that are relevant to the project. Appendix 11C, Soil Chemical and Physical Properties, Soil Interpretations, and Land Classifications, provides the physical and chemical properties of the upper approximately 5 feet of soils in the study area, including wind and water erodibility. As discussed in Chapter 11, Soils, in the Soil Erodibility by Wind section and Soil Erodibility by Water section, much of the study area is underlain by surface layer soils that have a relatively high wind erosion hazard. This information is sufficient to disclose potential environmental impacts associated with soils for the purposes of CEQA. Also, as described in Chapter 11, the soils study area encompasses all the project alternatives and the area affected by the project and alternatives. It includes portions of Sacramento, Yolo, San Joaquin, Contra Costa, and Alameda Counties. Lands outside this defined area were not considered because there are no structures or earthwork being proposed and no ground disturbance would occur outside this area. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues for a discussion of the approach used to defining study areas.
733-64	XI. Fish and Aquatic Resources The first section, the Environmental Setting provides an incomplete overview of the conditions fish and other aquatic species face in this heavily altered environment. For example, the DEIR states, "Flow management in the Delta altered the aquatic habitat by (1) changing aspects of the historical flow regime (timing, magnitude, duration) that supported life history traits of native species; (2) limiting access to or quality of habitat; (3) contributing to conditions better suited to	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the purpose of CEQA and the disclosure of impacts, as opposed to benefits, and the requirements to establish a CEQA baseline under which to measure changes under different alternatives. Common Response 1 also describes the project objectives pursuant to CEQA and the objectives are not required to, nor include, improvement of "altered flows" (existing flow conditions) or restoration of the Delta. The potential impacts of the project alternatives are assessed in relation to the existing conditions baseline and

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	invasive, nonnative species (reduced spring flows, increased summer inflows and exports, and low and less-variable interior Delta salinity [Moyle and Bennett 2008]…" (p. 12, ln. 8). However, nowhere within the entirety of Chapter 12 does the DEIR provide information on how the proposed project would improve the three elements of altered flows described above.	mitigation is proposed where necessary to reduce potentially significant impacts to less than significant.
733-65	This chapter is also replete with unsubstantiated, speculative statements. For example, on pp. 44-47 labeled "No Project Alternative," the DEIR discusses Future Fish and Aquatic Resources Conditions and Predictable Actions by Others. In the first of these two sections, the DEIR briefly discusses climate change but fails to provide any details for the potential effects of climate change beyond increasing temperatures. In the second section, the DEIR makes numerous speculative statements about actions various regions of the state may take in the absence of the proposed DCP. But nowhere does the DEIR provide evidence for these speculative statements. For example, on p. 12-46, the DEIR states, "Desalination projects would most likely be pursued in the northern and southern coastal regions."	Please see response to comment 733-55 regarding the actions identified in the No Project Alternative as being based on facts or assumptions predicated on facts. The section titled Future Fish and Aquatic Resources Conditions in Chapter 12, Fish and Aquatic Resources, mentions temperature, as the commenter states, and notes example effects from other factors such as potential changes in sediment loading/turbidity, movement of the salinity field, and potential effects from seismic events. The potential effects of climate change are described in various locations within the EIR. For example, Chapter 4, Framework for the Environmental Analysis, provides an explanation regarding how climate change was incorporated into the EIR's analysis. Chapter 30, Climate Change, evaluates potential impacts of the alternatives under climate change. Furthermore, there are multiple appendices that consider potential effects associated with climate change under different scenarios (i.e., under 2040 and under 2070). For example, see Appendix 4A, Consideration of 2070 Conditions; Appendix 5B, Surface Water 2040 Analysis; and Appendix 6A, Water Supply 2040 Analysis. Additionally, please see Common Response 6, Climate Resilience and Adaptation, regarding how the project will provide climate change resilience to the State Water Project. With respect to Chapter 12, Appendix 12C, Fish and Aquatic Resources 2040 Analysis, compares the No Project Alternative under the 2040 scenario to the project alternatives under the 2040 scenario using modeling tools and methods appropriate for the evaluation of impacts on fish and aquatic resources; in Appendix 12C, modeling for the No Project Alternative under the 2040 scenario and project alternatives under the 2040 scenario incorporates assumptions regarding changes to hydrology and sea level rise as a result of climate

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		change; this appendix shows that the relative difference between the project alternatives and No Project Alternative under the 2040 scenario is generally similar to difference between the project alternatives and existing conditions at 2020.
733-66	This section, pp. 44 - 47, is speculation and should be stricken from the DEIR. Alternatively, this section should be thoroughly revised so that every speculative statement is fully substantiated with peer-reviewed, scientific evidence.	Please see response to comment 733-66 regarding the definition and description of the No Project Alternative and the use of facts or assumptions predicated on facts to support the description of the No Project Alternative.
733-67	There is one "Predictable Action by Others," which is not addressed and must be included in Chapter 12's analysis. On p. 12-40, in a section labeled "Applicable Laws, Regulations and Programs," the DEIR references "…the State Water Resources Control Board Water Quality Control Plan for San Francisco Bay/Sacramento San Joaquin Delta Estuary…" in December 2018, the State Water Resources Control Board (SWRCB) issued its proposal to increase flows into the Delta by requiring approximately 40% unimpaired flows from the San Joaquin River and its three main tributaries, the Stanislaus, Tuolumne and Merced Rivers. The SWRCB is currently in process of implementing this updated water quality control plan, known as "Phase 1" of the update. Phase 2 will update the Sacramento River's water quality control plan.	Please see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the State Water Resources Control Board updates to the Bay-Delta Water Quality Control Plan, including "Phase 1" as mentioned by the comment. These updates are considered to the extent possible within the EIR given the level of information on operational criteria/objectives identified in the updates. Chapter 12, Fish and Aquatic Resources, qualitatively references the State Water Resources Control Board updates to the Bay-Delta Plan both in the No Project Alternative analysis and in the cumulative analysis contained in the section titled Cumulative Analysis (see also the discussion of the Bay-Delta Plan updates in Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions). Appendix 4C, Alternate Regulatory Scenario Sensitivity Analysis, includes a quantitative sensitivity study focused on the operation of the proposed project to understand if potential environmental effects of the proposed project may vary with an Alternate Regulatory Scenario. In summary, the appendix concludes that no new significant impacts are identified under an Alternate Regulatory Scenario relative to those already disclosed in Chapters 7 – 32 of the EIR. The analysis presented in the appendix shows that impacts would generally be similar in nature and extent with proposed project under an Alternate Regulatory Scenario as compared to the proposed project under existing conditions and as described in Chapters 7 – 32 of the EIR.

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733-68	As noted above, Chapter 12 contains a section of speculative statements labeled "Predictable Actions by Others." Yet, here we have a specific set of actions currently in the process of being taken by the main body of water regulation in California, the SWRCB, but no discussion of the importance of these new regulations on the proposed DCP. It is entirely "predictable" that the SWRCB will take action in updating its water quality control plan for the Sacramento River. It is entirely "predictable" that this update will impact the operations of the proposed project by requiring some level of unimpaired flows in the Sacramento River. Therefore, the section labeled "Predictable Actions by Others" should be rewritten in conjunction with the SWRCB to include the actions the SWRCB is likely to take in updating the water quality control plan.	Please see response to comment 733-65 through 733-67 regarding the No Project Alternative description and the description of predicable actions by others.
733-69	As noted above, Chapter 12 includes descriptions of nineteen specific impacts. It is notable that "Impact AQUA-2: Effects of Operations and Maintenance of Water Conveyance Facilities on Sacramento River Winter-Run Chinook Salmon" is by far the longest, most detailed of the nineteen impacts. Those details cover such topics as near- and far-field effects, North and South Delta exports, water temperature and harmful algal blooms. But in spite of all of these details, there is no discussion of the impact of reduced flows throughout the Estuary on winter-run chinook salmon. Detailed review of the other eighteen impacts shows the same missing information: nowhere does the DEIR discuss the impact of reduced flows on any of the fish and aquatic resources. This complete lack of discussion contradicts Chapter 12's own statement, as quoted above (on p. 12-8, the DEIR states, "Flow management in the Delta altered the aquatic habitat by (1) changing aspects of the historical flow regime (timing, magnitude, duration) that supported life history traits of native species; (2) limiting access	The comment suggests that the Draft EIR omits discussion of the impacts associated with flows in the analysis of fish and aquatic resources contained in Chapter 12, Fish and Aquatic Resources; however, multiple analyses regarding flow are included. For example, Impacts AQUA-2 (winter-run Chinook salmon), AQUA-3 (spring-run Chinook salmon), and AQUA-4 (fall-run/late fall-run Chinook salmon) all include consideration of indirect mortality within the Delta using tools such as the Delta Passage Model, which reflects the effects of flow on juvenile through-Delta migration survival. A number of other impacts include quantitative or qualitative consideration of the effects of differences in Delta flow/hydrodynamics on fish and aquatic resources, for example, Impact AQUA-5 (Central Valley steelhead; cross-referencing juvenile Chinook salmon analysis), Impact AQUA-6 (delta smelt; this discusses potential X2 effects on prey and juvenile survival), Impact AQUA-7 (longfin smelt; this applies a statistical relationship between Delta outflow and fall midwater trawl abundance index), Impacts AQUA-8 and AQUA-9 (green and white sturgeon; a Delta outflow-year class strength regression analysis is applied), and Impacts AQUA-14 and AQUA-15 (striped bass and American shad;

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	to or quality of habitat; (3) contributing to conditions better suited to invasive, nonnative species (reduced spring flows, increased summer inflows and exports, and low and less-variable interior Delta salinity [Moyle and Bennett 2008]…").	these include application of published X2-abundance and survival relationships).
733-70	Furthermore, the other eighteen impacts do not provide anywhere near the same detailed analysis of the impacts as Impact AQUA-2. Nowhere in the DEIR is there any explanation for why the impact on winter-run chinook receives the substantial bulk of the impact discussion. Many, if not all, of the other impacted species, whether steelhead, Delta smelt, long-fin smelt, or even southern resident killer whales, will be negatively impacted by the proposed project's operations and maintenance, and in nearly all of the same ways that winter-run chinook salmon will be impacted. Therefore, the DEIR's Chapter 12 should be thoroughly rewritten.	The level of detail provided for each species evaluated in Chapter 12, Fish and Aquatic Resources, is appropriate given the state of the knowledge for each species, potential for impacts and known population stressors, and status of species (e.g., listed species vs. non-listed species). The items in the list provided by the comment in 733-71 are addressed, to the extent biologically relevant, for every species evaluated in Chapter 12. Thus, for example, listed species such as winter-run Chinook salmon and delta smelt include relatively more factors given increased knowledge and concern about particular stressors, as expressed in prior environmental and permitting documentation involving these species. Species may also have relatively less detail because it is appropriate to cross-reference more detailed analysis for other species, for example as is done in the case of other salmonids cross-referencing the analysis for winter-run Chinook salmon. Specific to that point, reference Impact AQUA-3. In the introductory paragraph is a reference to analyses associated with Impact AQUA-2 that are comparable and applicable. This logic is carried on throughout Chapter 12. Additionally, certain analytical tools, such as the Winter-Run Chinook Salmon Life Cycle Model are specific to only the winter-run Chinook salmon.
733-71	Here we provide a list of the impact topics discussed in Impact AQUA-2: • Near-field effects of North and South Delta Exports • Far-field effects: o Hydrodynamic effects o Through-Delta Survival o Habitat Suitability o Habitat & Wetland Bench Inundation o Water Temperature	Information related to past and current conditions is provided in the environmental setting in Chapter 12, Fish and Aquatic Resources. Please see response to comment 773-70 for more information regarding the level of detail in the various species analyses contained in Chapter 12. Please also see response to comment 733-67 regarding other plans, projects, policies, and programs and cumulative impacts analyzed in Chapter 12, which considers potential future reduced water flows. Please also see response to comments 733-21, 733-22, and 733-65 with respect to future conditions and consideration of climate change.

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	o Cyanobacteria Harmful Algal Blooms o Metals o Adult Straying o Salmon Life-Cycle monitoring o Maintenance Effects o CEQA Conclusions o No Project Alternative A thorough revision of Chapter 12 is required to provide similar impact analyses across all affected fish and aquatic resources for the simple reason that winter-run chinook salmon is not the only species which lives – or attempts to live – in this heavily altered environment. The proposed DCP will alter this environment even more. Every affected species deserves and requires a thorough analysis. The analysis of winter-run chinook salmon provides a reasonable model to begin that analysis. The winter-run chinook salmon analysis fails to address the historic, continuing and future impacts of reduced water flows throughout the Bay-Delta Estuary. Therefore, to the bulleted list provided above, the DEIR needs to add this impact element to its analysis of all impacted species, not only winter-run chinook: Impact of historic, continuing and future water diversions on each species' ability to thrive.	
733-72	A second major omission is regarding the Delta Reform Act of 2009 ("the Act"). The Act defines "coequal goals" as "the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving	Please see Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the Delta Reform Act and consistency, including co-equal goals. Delta Reform Act Considerations are contained in Appendix 3E, Delta Reform Act Considerations.

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	place" (Water Code 85054). Nowhere in Chapter 12 is the Act addressed. Fish and aquatic resources are certainly part of "natural resource values" and therefore are required by California law to be enhanced, not degraded. Chapter 12 of the DEIR must be completely rewritten. Every section, from the Environmental Setting and stressors all the way through to Impact AQUA 19, must be rewritten to include a full, detailed description of how each specific element will be enhanced by the proposed project. As currently written, the DEIR violates the Delta Reform Act of 2009; substantial revisions must be undertaken to correct this glaring omission.	
733-73	XII. Terrestrial Biological Resources The DEIR is flawed in its treatment of terrestrial species, and must be revised and recirculated for public comment. It does not provide adequate mitigation for impacts to terrestrial species, nor does it commit to mitigation as required by CEQA.[Footnote 8: "Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the DCP's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure." (CEQA Guideline 15126.4(a)(1)(B))] Similarly, the requirement for getting a 2081 incidental permit pertains to all vertebrate terrestrial species and there needs to be a commitment to get one for all of the vertebrate terrestrial species. The DEIR fails to state enforceable methods for	The analysis contained in the EIR does not support the assertion by the comment that the EIR is flawed in its treatment of terrestrial species, and must be revised and recirculated for public comment. Please see Common Response 1, CEQA Process, General Approach to Analysis and Other Environmental Review Issues, for a description of the requirements for recirculation of an EIR, none of which the current EIR meet. With regard to the adequacy of mitigation, the mitigation measures developed to address impacts on terrestrial biological resources comply with the requirements of CEQA and are not inappropriately deferred. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of the use and incorporation of mitigation measures; please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for discussion of mitigation measures for terrestrial biological resources. As described in Chapter 1, Introduction, DWR will comply with state endangered species laws by obtaining an Incidental Take Permit from CDFW for the project under Section 2081(b) of CESA. DWR will also comply with the federal endangered species act by complying with a biological opinion and incidental take statement prepared by the USFWS under Section 7 of the Endangered Species Act. Regarding conserving lands for mitigation in perpetuity, as described in Appendix 3F, Compensatory Mitigation Plan for Special-Status

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	conserving in perpetuity the lands for mitigation for loss of all of the vertebrate terrestrial species foraging habitat, as well roosting and nesting habitat where applicable. Loss of habitat is a critical component for the listing of covered vertebrate terrestrial species. Conserving habitat at 1:1 or other mitigation ratio level does not compensate for the habitat that was lost. At a 1:1 ratio, for every acre conserved there is an acre lost, and it is the ongoing loss of habitat that makes the impacts to all covered vertebrate terrestrial species significant and unavoidable. This DEIR needs to change all of its significance findings for all covered vertebrate terrestrial species impacted to "significant and avoidable" for all species that lost significant amounts of habitat.	Species and Aquatic Resources, in the section titled Financial Assurances, all lands protected and restored for compensation of impacts from construction and operation of the project on aquatic resources and special-status species, as appropriate and consistent with the specific mitigation, would be protected and managed in perpetuity. Mitigation ratios have been added to Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources. These ratios vary by land cover type and habitat type and have been developed in coordination with agencies, including CDFW and USFWS, through other regulatory processes. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit as described in Common Response 11. The analysis in Chapter 13, Terrestrial Biological Resources, does not support the comment assertion that the significance findings for vertebrate terrestrial species should be revised to significant and unavoidable because, as described in this response, the mitigation ratios are developed in coordination with agencies and represent a mitigation approach that reflects commonly used ratios for approved projects in this region. For example, conservation of grassland and management of cultivated lands at a 1:1 ratio is a mitigation approach commonly used for impacts on those land cover types for approved projects in this region. The protection and management of grassland and cultivated lands benefits multiple species by ensuring these lands are managed to provide high-value habitat in perpetuity. Please also refer to Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for a discussion of the adequacy of mitigation measures.
733-74	Additionally, the DEIR did not include the Peregrine Falcon (Falco peregrinus) in the impact analysis or mitigation. The peregrine falcon is a California Fully Protected Species that can be found throughout the project area, but it was not included	The peregrine falcon is not expected to occur in the project vicinity during construction due to the lack of suitable nesting habitat in the vicinity of project alternative alignments. Therefore, a model description and detailed analysis were not conducted specifically for peregrine falcon in the EIR.

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	in this DEIR. The peregrine falcon routinely ingests shorebirds when near wetland areas, but there was no discussion of the possible impacts to the falcon from methylated mercury, selenium or by products from toxic algae, despite the fact that it eats fairly high up on the food chain and would therefore be more vulnerable to such toxins concentrating up thru the food chain. This DEIR must be revised to include impacts analysis and mitigations for Peregrine falcon.	However, Impact BIO-36 considers potential effects of the project alternatives, including an analysis of potential effects of methylated mercury, selenium, or byproducts from toxic algae, on all nesting raptors. Similarly, as described in Impact BIO-36, the environmental commitments in Appendix 3B and applicable mitigation measures would avoid and minimize impacts on all nesting raptors, including peregrine falcon.
733-75	Swainson's Hawk The primary threat to the Swainson's Hawk (Buteo swainsoni) in California is ongoing cumulative loss of habitat for foraging and nesting. (California Department of Fish and Wildlife, Swainson's Hawk (Buteo swainsoni) In California (Reported to California Fish and Game Commission) FIVE-YEAR STATUS REPORT, at 3 (2016)). In the San Joaquin Valley conversion of riparian systems and woodland communities to agriculture also limits the distribution and abundance of Swainson's Hawks (Id. at p. 4). The Swainson's Hawk is currently listed as a threatened species and protected under the California Endangered Species Act. The DEIR fails to consider or provide adequate commitment to mitigation, and is inconsistent with CEQA Guideline 15126.4(a)(1)(B). The DEIR lists as a reference the Department of Fish and Game guidance on Swainson's Hawk mitigation (Staff Report Regarding Mitigation for Impacts on Swainson's Hawk in the Central Valley of California, California, Department of Fish and Game, November 8, 1994), but does not refer to those guidelines, much less commit to them, in its description of compensatory mitigation. The DEIR fails to commit to mitigation, including a mitigation ratio, a number of acres to be conserved in perpetuity, and a number of trees to be replaced. Moreover, it fails to disclose the	The analysis contained in the EIR does not defer mitigation or conflict with CEQA Guideline 15126.4(a)(1)(B). Please refer to Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for a description of the adequacy of mitigation related to terrestrial species. In regard to the Department of Fish and Game guidance on Swainson's hawk mitigation cited by the comment (Staff Report Regarding Mitigation for Impacts on Swainson's Hawk in the Central Valley of California, California, Department of Fish and Game, November 8, 1994), as stated in the guidance, "either the mitigation measures in the staff report may be used or project specific measures may be developed" (California Department of Fish and Game 1994:1). Swainson's hawk mitigation for the EIR was developed in coordination with the California Department of Fish and Wildlife through other regulatory processes. The Compensatory Mitigation Plan (Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources) includes mitigation commitments for Swainson's hawk nesting and foraging habitat and has been updated through coordination with CDFW to include mitigation ratios for impacts on Swainson's nesting and foraging habitat, which will be used to calculate the number of acres to be conserved in perpetuity based on the project alternative that is selected. Please see Attachment 3F-1, Compensatory Mitigation Design Parameters, for the commitment regarding Swainson's hawk foraging habitat mitigation and for a description of suitable nest site replacement, the compensation for suitable nest trees, and the associated performance standards, success criteria, and monitoring requirements.

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	specific performance standards to be used for Swainson's Hawk impact mitigation.	
733-76	The DEIR fails to commit DWR to obtaining a 2081 take permit for impacts to Swainson's Hawk of the project, nor does it require that its mitigation plans be approved by California Fish and Wildlife. The DCP cannot guarantee that it has reduced its impact on Swainson's Hawk to less than significant if it does not apply for a 2081 take permit and comply with the guidelines and conditions set by CDFW. Instead, the DEIR defers until after the permitting process the impact and mitigation details required to be disclosed to the public in the DEIR. (Ch. 13, p. 3F-16). Deferring mitigation until late in the design process is not compatible with CEQA and makes it impossible for the public or the agency to understand the full impacts of the project and whether the proposed actions to minimize or mitigate impacts are adequate.	The information in the EIR does not support the assertion that the EIR fails to commit DWR to obtaining an Incidental Take Permit. As described in Chapter 1, Introduction, DWR will comply with state endangered species laws by obtaining an Incidental Take Permit from CDFW for the project under Section 2081(b) of the California Endangered Species Act. Regarding the assertion that the EIR defers impact and mitigation details, Chapter 13, Terrestrial Biological Resources, presents the range of impacts on modeled Swainson's hawk habitat by alternative before mitigation and the CEQA findings after mitigation. Proposed mitigation for potentially significant impacts on Swainson's hawk are presented in Impact BIO-39, in the CMP in Appendix 3F, and in Attachment 3F-1. Please also refer to Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, for an explanation of the methods and approach to the impact analysis described in Chapter 13, why Chapter 13 presents a conservative estimate of potential impacts, and why the mitigation measures in Chapter 13 and Appendix 3F are not deferred and meet the requirements of CEQA.
733-77	The DEIR fails to state an enforceable method for conserving in perpetuity the lands for mitigation for loss of SWH foraging habitat. CEQA requires that mitigation measures be capable of enforcement. Mitigation for loss of foraging habitat requires that a conservation easement held by a credible conservation manager includes an endowment for the permanent enforcement and monitoring of the habitat mitigation easement. Typically the easement will be recorded prior to the issuance of a grading permit or prior to any grading, grubbing	DWR has committed to provide mitigation for impacts on Swainson's hawk habitat through the CMP (Appendix 3F), which describes that mitigation will be implemented through a conservation easement or another site protection instrument, subject to CDFW approval, and will be managed to provide suitable habitat and monitored in perpetuity. Furthermore, the CMP includes the commitment that DWR will ensure appropriate long-term funding for mitigation and designation of the party or entity responsible for long-term management of the mitigation lands.

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	or disturbance of soil. To ensure that mitigation achieves the less than significant impact threshold, both the conservation easement and the conservation operator should be approved by CDFW. Deed restrictions would not meet the criteria for enforceable mitigation and we do not believe they have been used for Swainson's Hawk conservation in California. CDFW has a model easement which can be utilized with willing agricultural land owners. The Swainson's Hawk foraging habitat easement differs from an agricultural land conservation easement primarily in the addition of restrictions against orchards and vineyards and other crop types that interfere with foraging.	Regarding the consistency of the Swainson's hawk mitigation in the CMP with CDFW's model easement, the mitigation for Swainson's hawk foraging habitat described in CMP-19b requires the management of mitigation lands in crop types that provide suitable foraging habitat for the species and does not permit orchards or vineyards or other non-suitable crop types on the Swainson's hawk mitigation lands.
733-78	Despite the DEIR's claim that "Mitigation acres will be provided for all acres of habitat lost in the very high, high, medium and low value classes. . . .", it does not disclose the mitigation ratio or the number of acres to be acquired for mitigation, or the instrument for restricting uses. (Appendix 3F, p. 1-9, CMP-19b). CDFW SWHA mitigation standards, and those of local ordinances and habitat conservation plans, generally require that mitigation for loss of any SWHA foraging habitat be at a ratio of 1:1, that the mitigation lands be protected in perpetuity by conservation easement or fee title, that a conservation manager be approved by CDFW and permanently endowed, include crop restrictions, and that mitigation lands be within 10 miles of the area impacted by the DCP. The DEIR has none of these requirements. The DCP mitigation measure would allow a much smaller mitigation ratio. The EIR states that mitigation measures will be developed during the permitting process, but fail to state when the mitigation land, whether easements or fee title, will be acquired. The EIR mitigation measure would allow the mitigation land to be	Regarding the disclosure of mitigation ratios and the number of acres of mitigation lands to be acquired for Swainson's hawk foraging habitat, Appendix 3F has been updated to provide the ratio of compensation for impacts. The number of acres to be acquired for mitigation will depend on the project alternative that is selected. As described in response to comment 733-76, Chapter 13 presents the range of impacts on modeled Swainson's hawk habitat by alternative that would require mitigation. Appendix 3F discusses the site protection instruments available to mitigate for Swainson's hawk foraging habitat which would describe site ownership, management, and enforcement of restrictions. DWR has committed to provide mitigation for impacts on Swainson's hawk habitat through the CMP (Appendix 3F), which describes that mitigation will be implemented through a conservation easement or another site protection instrument, subject to CDFW approval, and will be managed to provide suitable habitat and monitored in perpetuity. The CMP includes a commitment to coordinate with applicable conservation plans prior to acquiring site protection instruments within a plan area to ensure they do not conflict with the plans or

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	acquired at some unspecified time after the DCP is completed – maybe never.	their ability to achieve their biological goals and objectives (Appendix 3F, Section 3F.4.2.2). Regarding the timing of acquisition of mitigation land and the assertion that the EIR would allow the mitigation land to be acquired at some unspecified time after the project is completed, or possibly never, the CMP (Appendix 3F) has been revised to clarify the "stay ahead" requirements for the timing of compensation. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
733-79	Per the DEIR, mitigation lands could be located many miles distant from the area impacted by the DCP and thus of no value to the population of SWHA impacted by the project. In fact, CMP – 19b states "Foraging habitat will be protected within 3 miles of a known Swainson's hawk nest tree and within 50 miles of the project footprint." (Appendix 3F, p. 1-9). Protection of foraging lands more than 10 miles from the DCP impact will have no beneficial impact to the nesting pairs in the project area and will not contribute to their reproductive success. Providing additional protected foraging habitat for other nesting pairs, not affected by the DCP, will not address impacts to the population affected by the project, and will not reduce its impact on the reproductive success and range of the species.	Regarding the location of compensatory mitigation for Swainson's hawk foraging habitat in relation to project impacts, the mitigation described in CMP-19b has been developed with CDFW through other regulatory processes. DWR has been coordinating with CDFW regarding permitting conditions, terms, and requirements, including the mitigation described in CMP-19b, and will continue to coordinate with CDFW to develop suitable foraging habitat mitigation within an energetically efficient flight distance from active Swainson's hawk nests (Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California, 1994).
733-80	CMP-19b states that "Where feasible, protected foraging habitat will have land surface elevations equal to or greater than -1 foot NAVD88 or will maintain levees around protected habitat, to minimize the risk of flooding and loss of suitable habitat due to future sea level rise." (Appendix 3F, p. 1-9). The DEIR does not provide an explanation for why this level will protect habitat from flooding. Elevation at or below sea level is not considered suitable for SWHA nesting and foraging habitat	Regarding the adequacy of the elevation requirements for protected Swainson's hawk foraging habitat, CMP-19b has been revised to more clearly state that if compensation lands for Swainson's hawk are located at elevations lower than -1 foot NAVD88, levees would be maintained around protected habitat, which would protect the lands from flooding. With the added protection of levee maintenance, the mitigation habitat would be adequate for the species.

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	due to exposure to potential flooding.	
733-81	The DEIR identifies "The unmitigated impact on SWHA ranges from 1800 acres in Alt 5 to a high of 3400 acres in Alt 2A. This is considered less than significant impact. (Table 13.0)." Please explain if this number represents the number of acres impacted by the DCP before mitigation is acquired, or if this is the number of acres left unmitigated after mitigation is acquired. If there are 1800 to 3400 acres of foraging habitat that will not be mitigated, clearly the project impacts have not been mitigated to less than significant. If these numbers represent the acre impact, then the DEIR should commit to 1800 to 3400 acres of mitigation for loss of foraging habitat, depending on the alternative chosen. However, it does not. For these reasons, the claim that the mitigation will reduce the impact of the project on Swainson's Hawk to less than significant is empty and lacks credibility.	Chapter 13, in the table titled Comparison of Impacts on Terrestrial Biological Resources by Alternative (acres/CEQA findings after mitigation), presents the range of impacts on modeled Swainson's hawk habitat by alternative before mitigation and the CEQA findings after mitigation. The EIR commits to compensation for impacts on Swainson's hawk habitat through the CMP. Chapter 13 presents the range of impacts on modeled Swainson's hawk habitat by alternative, avoids and minimizes impacts through Mitigation Measure BIO-39, and commits to offsetting the loss of Swainson's hawk nesting and foraging habitat through the CMP. Therefore, the information and commitments in the EIR support the conclusion that the mitigation will reduce the impact of the project on Swainson's hawk to less than significant. For the aforementioned reasons described responses to comments 733-75 through 733-81 the analysis contained in the EIR does not support the assertion that the impact conclusion of less than significant with mitigation lacks credibility. Furthermore, none of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit
733-82	Greater Sandhill Cranes Greater Sandhill Cranes (Grus canadensis tabida) are a "no take" species by virtue of the CA Fully Protected Species status. For Fully Protected Species, California Fish and Game code 86 states: "'Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." This is a fairly high bar in that no individuals that are Fully Protected can be killed during any phase of the construction and the operation	This information describes the legal status of the greater sandhill crane and the key points addressed in the comment letter. It is not a comment on the contents of the EIR. DWR has reviewed all comments and will consider all comments in its decision-making process.

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	of the DCP. “Take,” as defined by code 86 must be avoided in all circufmstances and it is not acceptable to provide mitigation for incidental take except within the construct of a state approved Natural Communities Conservation Plan (NCCP). The DCP is not an NCCP, it is a huge construction project that is regional in scope.	
733-83	The Greater Sandhill Crane is also protected as a threatened species under the California Endangered Species Act (CESA) which defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The big additional protection provided by CESA is that the species is not to be harmed. But unlike “Fully Protected Species” status, incidental take (harm in this case) can be mitigated. This difference in definitions explains why avoidance methods are being employed in the hopes that no Greater Sandhill Cranes are killed during the construction and operation of the project (Fully Protected Species status) and why land acquisition mitigations are being provided for the loss of Greater Sandhill Crane habitat (to address “harm,” CESA). Our review will focus on whether the avoidance efforts are sufficient to ensure that no Greater Sandhill Cranes will be killed by any facets of the construction or operation of the DCP, and whether the land acquisition mitigations provided are adequate to address the harm caused by the project.	Please see response to comment 733-82 regarding descriptive information about the legal status of the greater sandhill crane.
733-84	Setting September 15 as the de facto day that Greater Sandhill Cranes are going to arrive is problematic. Whereas this may be a useful date to consider if one wants to go out and see early arrivers, it is in no way a hard and fast parameter. Greater Sandhill Cranes have been seen much earlier than that date in the Delta, as an example, about 15 years ago a small flock was reported by Esther Milnes on August 18. Admittedly this flock was likely quite an outlier, but section 86 of CDFW code	Language has been added to the impact discussion and mitigation measure for greater and lesser sandhill cranes in Chapter 13, Terrestrial Biological Resources, that provides additional detail about how the September 15 through March 15 arrival and departure dates were determined. As the comment acknowledges, the flock observed 15 years ago that arrived on August 18 is considered an outlier and the September 15 through March 15 dates referenced in the EIR are a reasonable assumption of arrival and departure dates.

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	prohibits the take of any Greater Sandhill Cranes, no matter how much earlier they arrive than September 15th. With climate change, it would not be unreasonable to think that arrival times could shift for cranes like it has for other birds. If as a result they left earlier from the Delta, this would not be problematic for this DEIR, but earlier arrival times would be. No consideration or discussion appears to have been provided in this DEIR addressing possible shifts in arrival times due to climate change. All analysis and avoidance measures for Greater Sandhill Cranes need to include arrival times as early as August 18th and possibly even earlier to address climate change shifts.	CEQA requires the analysis be based on a reasonable scenario, rather than a worst-case scenario. The impact discussion and mitigation measure have also been revised to acknowledge that due to the long-term nature of the project, sandhill cranes may arrive earlier and stay later than the dates specified in the EIR and that the survey dates and and mitigation measures mitigation measures dates to minimize potential impacts on sandhill cranes may need to be adjusted over the course of the project, consistent with CDFW guidance if such guidance is developed in the future. As described in Mitigation Measure BIO-33, annual preconstruction surveys would be conducted beginning the winter before construction begins, which would also inform arrival dates in the study area. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
733-85	The temporary roosting data being used for temporary roosting sites is outdated and not sufficient to identify potential impacts to Sandhill Cranes. The DEIR acknowledges that Greater Sandhill Cranes have a high level of philopatry for their roosting sites. But if Greater Sandhill Cranes have been using a roost site that is no longer available, they have no choice but to find a new roost site. Temporary roost sites are, by definition, not permanent. The data used for the location of roost sites in the DEIR is not current. It should be updated yearly to reflect the current locations of roost sites being utilized. Using older, and therefore not necessarily accurate, roosting data means that any analysis derived using those sites is also not necessarily accurate. Understanding where Sandhill Cranes are likely to forage is directly tied to where they roost. Identifying impacts to foraging cranes are an important consideration for the DEIR. This temporary roost site data	Please see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. Temporary roost sites were included in the sandhill crane habitat models to provide a conservative estimate of additional areas where sandhill cranes may roost and to inform preliminary surveys, but avoidance and minimization measures and compensation for impacts, as described in mitigation measures for terrestrial biological resources, will be determined using data collected during surveys conducted both prior to and annually during construction. Mitigation Measure BIO-33 requires surveys to be conducted to determine where sandhill cranes are roosting and foraging and to determine where occupied habitat may be affected by construction-related noise. Surveys will account for not only how foraging locations may shift due to shifting roost sites, as the commenter suggests, but will also inform where

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	deficiency needs to be corrected by using the most recent season's current roosting data, and the analysis of impacts to roosting and foraging cranes needs to be updated and corrected accordingly.	suitable habitat does or does not occur due to changes in land cover type. As described in Chapter 13, Terrestrial Biological Resources, in the Methods Used to Assess Impacts on Special-Status Species section, surveys will not be limited to modeled habitat but will be conducted in all suitable habitat for roosting and foraging by sandhill cranes.
733-86	This DEIR relies heavily on Ivey et al's 2015 study looking at how far cranes migrate daily from their roost sites to foraging areas (Ivey, Dugger, Herziger, Cassaza, and Fleskes, 2015). The paper was not trying to determine the greatest distance that a crane would commute daily for feeding, but rather it was trying to determine commute distances in the context of conservation. To that end, the discussion in the paper clearly states that habitats within 5 km of roosts for Greater Sandhill Cranes, which would encompass 95% of the studied Greater Sandhill Cranes, and within 10 km for Lesser Sandhill Cranes (90%), should be considered for making zoning and land use considerations. The 5% of Greaters, and the 10% of Lessers, that commute farther than the respective 5 km and 10 km also need to be considered in a DEIR that must ensure that no Greater Sandhill Cranes will be killed, and that must identify harmful impacts to Greater and Lesser Sandhill Cranes, even those that are outliers when it comes to long commuting distances.	The use of the 5-kilometer (km) daily commute distance that encompassed 95% of greater sandhill cranes and the 10-km daily commute distance that encompassed 90% of lesser sandhill cranes in Ivey et al. 2015 is a reasonably prudent distance to analyze effects on sandhill cranes. Ivey et al. 2015 presents these commute distances as appropriate for zoning and land use considerations, and these commute distances were considered in project design, including the prioritization of undergrounding power and SCADA (supervisory control and data acquisition) lines and the placement of overhead power lines in relation to known sandhill crane roost sites. Ivey et al. 2015 also proposed that the 5-km commute distance for greater sandhill crane would be effective to reduce impacts of hunting (in areas where hunting is authorized) by restricting hunting to areas greater than 5 km from roost sites. Impact BIO-33 provides a reasonable assessment of foreseeable impacts under CEQA. The implementation of measures to avoid and minimize effects of the project on sandhill cranes is not restricted to the 5-km and 10-km commute distances used to estimate reasonably probable impacts. As described in Mitigation Measure BIO-33, the measures to avoid and minimize impacts on sandhill cranes will be based on annual surveys to determine suitable and occupied habitat and will not be limited to areas of modeled habitat. Please also see the Chapter 13 figure titled Modeled Habitat in Relation to Suitable and Occupied Habitat, which presents the stepwise process to identify modeled habitat, suitable habitat, and

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		occupied habitat for special-status species. Mitigation Measure BIO-2c outlines the commitment by DWR to ensure that Avian Power Line Interaction Committee (APLIC) recommendations (or more current guidance) are incorporated into project power and SCADA lines, including marking overhead project lines with bird diverters. With the environmental commitments and mitigation measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these environmental commitments and mitigation measures, the project would not be expected to increase the potential for take of greater sandhill crane in the project area.
733-87	It is important to remember that only 33 Greater Sandhill Cranes and 44 Lesser Sandhill Cranes (Grus canadensis canadensis) were tracked for the study. Whereas this number of cranes were able to provide a statistically significant understanding of the relationship between roost sites and foraging sites, the same cannot be said for using the same data for determining the greatest distance that a crane might travel to forage. The Ivey et al paper (Ivey, Dugger, Herziger, Cassaza, and Fleskes, 2015) included a data point for a Greater Sandhill Crane traveling almost 9 kilometers from the roost site, and one for over 21 kilometers for a Lesser. So, the longest distance that might be traveled can be accurately described as longer than 5.5 miles (9 km) for Greater Sandhill Crane, and longer than 13 miles (21 km) for Lesser Sandhill Cranes. Given the thousands of cranes that winter in the project area, the extreme outliers could travel significantly further. There was no acknowledgement or discussion of this probability, nor does any of the impact analysis consider this probability.	Please see response to comment 733-86 regarding traveling distances of the greater sandhill crane and the impact analysis approach in Chapter 13.

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733-88	The distances utilized by this DEIR for identifying possible impacts are significantly shorter distances than even the important conservation considerations of 5 km for Greater Sandhill Cranes and 10 km for Lesser Sandhill Cranes. This resulted in a deficient approach for identifying potential deadly impacts to Greater Sandhill Cranes and potentially harmful impacts to both Greater and Lesser Sandhill Cranes. Analysis should be done looking at possible impacts greater than 5.5 miles (9 km) for Greater Sandhill Cranes because deadly impacts are possible in that range. As an example, a Greater Sandhill Crane being flushed when it is foraging 6 miles (10 km) from its roost site and hitting an existing power line on a cloudy day. This deficiency will be commented on further in the context of new power lines as well as potential impacts to foraging cranes.	Please see response to comment 733-86 regarding traveling distances of the greater sandhill crane and the impact analysis approach in Chapter 13.
733-89	There are descriptions and analyses of bird strikes with new power lines with a particular focus on, and even an appendix devoted to, Sandhill Cranes (Grus canadensis) because of a substantial historical record of this species being vulnerable to such strikes. The deficiencies discussed already about outdated roost site data and daily commute distances are evident here. Most greater sandhill crane movement in the Delta occurs within approximately 1.2 miles of their primary roost sites (Ivey et al. 2015:523) and Brown et al. (1987:131) found that no sandhill crane collisions occurred where distances from power lines to bird-use areas were greater than or equal to 1 mile (Avian Power Line Interaction Committee 2012:50). All proposed new aboveground towers and associated SCADA and transmission lines would be located at least 3 miles or more from the nearest known greater sandhill crane roost site under all alternatives (Ch. 13, p. 272).	Please refer to response to comment 733-86 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA in Impact BIO-33. In regard to the reference to Brown et al. 1987 specifically, the project does not include the construction of new transmission lines within 2 km of traditional (known, permanent) roost sites in the Delta. Because the location of suitable foraging habitat in the Delta varies depending on crop type and land management, it is less clear what would be defined as a traditional feeding site. In regard to the location of aboveground transmission lines, as described in Impact BIO-22, the majority of new project power and SCADA (supervisory control and data acquisition) lines would be underground and would not impact sandhill cranes. New, overhead project lines within the crane use area would be limited to one overhead 20-meter transmission line that would be required to

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	Whereas it is true according to Ivey et al, 2015, that most Greater Sandhill Crane daily commute distances in the Delta occur within 1.2 miles of roost sites, and even that 95% of Greater Sandhill Cranes are commuting 5 km or less daily, there remains the issue of the other 5% of Greater Sandhill Cranes which are traveling farther. As for Brown et al, 1987, bird use areas include both roosting and foraging, and his recommendation in that paper was to locate new transmission lines AT LEAST 2 km (which is 24.3% farther than the 1 mile attributed to Brown in this DEIR) from roosting and feeding sites. So, 1.243 miles from a crane use area would extend far beyond 1.2 or even three miles from the roost site based on the conclusions from the Ivey et al, 2015, paper, which demonstrated that Greater Sandhill Cranes can travel close to 9 km from roost sites, if not further. The correct math based on these two papers does not support a conclusion that locating new transmission lines at least 3 miles away from roost sites will avoid the possibility of a Greater Sandhill Crane being killed by a new transmission line. The correct math would be that new lines should be located at least 6.8 miles (11 km) from roost sites (9 km travel distance plus the additional 2 km added by Brown), and possibly significantly further away given the likelihood that some Greater Sandhill Cranes are at times traveling even further from their roost sites.	connect a new substation to existing transmission lines. The new 20-meter segment would be located along SR 12 under Alternatives 1, 2a, and 2b or on Lower Roberts Island under Alternatives 3, 4a, 4b, 4c, and 5. As described in Mitigation Measure BIO-2c, all new aboveground project lines will be marked with bird flight diverters that are visible under all conditions (e.g., glow-in-the-dark markers, near-UV line markers), even those outside the crane use area. As the comment states, the location of roost sites dictates where to measure commuting distances from, and temporary roost sites may vary annually, depending on the management of those areas. Therefore, the impact analysis in Chapter 13, Terrestrial Biological Resources, uses the distances published in Ivey et al. 2015 to analyze effects on a reasonable proportion of the cranes within the study area, while Mitigation Measure BIO-33 requires surveys for sandhill cranes to be conducted. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied roost sites and foraging habitat.
733-90	Locating new above-ground towers and associated SCADA and transmission lines 3 miles or more from Greater Sandhill Crane roost sites is clearly inadequate to avoid possible powerline strikes for a bird that we know travels close to at least twice that distance (9 km data point from Ivey et al, 2015) and quite possibly much more. Add to this the problem of outdated temporary roost data and it becomes impossible to accurately	Please refer to response to comment 733-86 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA in Impact BIO-33. Please also see response to comment 733-85 regarding the use of habitat models, including temporary roost sites, in the analysis and how survey data will be used to assess suitable and occupied habitat within the study area.

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	determine where to even start measuring the commute distances from. These deficiencies make it impossible to understand the potential impacts to Greater Sandhill Cranes. Locating new transmission lines at least 3 miles from roost sites does not avoid the eventuality of Greater Sandhill Cranes being killed and Lesser Sandhill Cranes being harmed.	
733-91	The same issues exist for the co-location of power lines: Replacement aboveground transmission lines along Franklin Road would be placed at the same vertical height as the existing lines on the opposite side of the tower. Replacement aboveground transmission and SCADA lines located within 1.2 miles of known roost sites, in the absence of mitigation, could increase the potential for collision for greater sandhill cranes (within 3 miles of known roost sites for lesser sandhill cranes; Ivey et al. 2015:523) if they were not constructed within the same vertical prism as the existing lines (Ch. 13, p. 273). The Ivey et al, 2015, and Brown et al. 1987, papers taken together suggest that any above ground transmission line within 11 km (6.83 miles), not 3 miles, of a roost site could increase the potential for collision for Greater Sandhill Crane and this was not analyzed in this DEIR. Further, constructing the new lines such that they are within the same prism as the existing lines does not guarantee that Greater Sandhill Cranes will not die hitting them. A bird gaining altitude as it flushes from a roost or forage site might clear the first lines as it gains altitude only to hit the new set of lines extending further out at the same elevation. Placing flight diverters may help, but the risk would remain. It is our understanding that the SCADA lines are to be installed significantly closer to the ground than the electrical lines. This would mean that Greater Sandhill Cranes	Please refer to response to comment 733-86 regarding the distances the commenter references in Ivey et al. 205 and Brown et al. 1987 and how they relate to the analysis in the EIR. In regard to the co-location of transmission lines in the same vertical prism on existing towers, adding a new line span on existing towers would reduce potential effects on avian species, including sandhill cranes, in comparison to constructing a new alignment of towers and powerlines and is consistent with Avian Power Line Interaction Committee (APLIC) guidance (2006, 2012). Mitigation Measure BIO-2c includes reasonable measures to minimize the risk of avian collisions with power and SCADA lines that are consistent with APLIC recommendations (2006, 2012), including the use of bird flight diverters and other measures described earlier in the response. With these measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures the project would not be expected to increase the potential for take of greater sandhill crane in the project area.

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	would have to avoid both the lower SCADA lines and the upper electrical lines, requiring them to avoid a new lower hazard as well as an elongated upper hazard. The SCADA lines are new and not necessarily being co-located on the same plane as existing lines. They present a clear hazard that is not avoided by co-locating the upper electrical lines on the same prism.	
733-92	The project alternatives have been designed to avoid any activities that would result in actions considered “take” of greater sandhill crane. The project alternatives would use existing power lines or underground conduit to the extent possible for the purpose of avoiding potential injury or direct mortality of the greater sandhill crane and all new aboveground lines would be located outside of the roost sites or foraging habitat for greater sandhill crane (Ch. 13, p. 274). The analysis of above ground transmission lines did not reflect the amount of the landscape that Greater Sandhill Cranes are using outside of their roost sites, using 3 miles as opposed to a minimum of 11 km as parameter. The co-location of the upper lines may result in fewer strikes than an entirely new alignment, but no evidence was provided that the additional width from adding new lines on the same plane is not a hazard to cranes gaining elevation as they flush. The SCADA lines introduce a new lower striking hazard with no evidence that Greater Sandhill Cranes will not hit them.	Please see responses to comments 733-82 through 733-91 regarding the analyses of greater sandhill cranes and transmission lines.
733-93	The final transmission line deficiency is that there was no impact analysis of Greater Sandhill Cranes hitting EXISTING transmission lines after being flushed from foraging sites by construction activities. Attention was only given to new lines and only within 3 miles of roost sites. The DEIR acknowledges the possibility of flushing foraging cranes – as an example by construction vehicles on the haul roads – but does not address	In regard to the commenter's statement regarding the adequacy of the EIR's analysis of the potential impact of greater sandhill cranes hitting existing transmission lines after being flushed from foraging sites by construction activities, the EIR discloses that construction activities could cause sandhill cranes to flush, if they perceive such activities as a threats; that sandhill cranes are known to be susceptible to collision with aboveground wires; and that cranes in

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	the existing power line strike issue that could result from flushing foraging birds. The analysis should use current roost site data and consider all existing power lines and other potentially deadly physical obstructions like, but not limited to, fences, buildings, large equipment, poles etc. within a minimum of 11 kilometers, and potentially further if the DEIR is unable to demonstrate that Greater Sandhill Cranes are not traveling even further, that might be hit by cranes being flushed from their forage sites by construction activity. No avoidance measures were presented for this potentiality, beyond 3 miles from roost sites, for Greater Sandhill Cranes, or mitigations provided for Lesser Sandhill Cranes, and only new transmission lines were considered within those 3 miles.	the Delta are regularly exposed to dense fog, which limits visibility and increases potential collision with power lines. With the environmental commitments described in Appendix 3B, Environmental Commitments and Best Management Practices, and the implementation of the measures in Mitigation Measure BIO-2c and Mitigation Measure BIO-33 to avoid and minimize impacts on sandhill cranes, the project would not be expected to abnormally increase potential collisions with existing or new lines above baseline conditions. The measures include the implementation of work windows, surveys to document occupied habitat, noise monitoring, the provision of foraging and roosting habitat prior to and concurrent with impacts on habitat where sound levels are greater than 50 dBA, and monitoring of construction and maintenance activities. Appendix 3F, CMP also describes the compensation for permanent impacts on roosting and foraging habitat.
733-94	There appears to have been an assumption that the avoidance measures that were designed to keep Greater Sandhill Cranes from hitting transmission lines would also be protective for Lesser Sandhill Cranes. This was an erroneous assumption. As indicated earlier, Lesser Sandhill Cranes were documented flying more than 21 km from roost sites in the Ivey 2015 et al paper, which means that 13 miles (21 km) is a minimum distance to be considered and not the farthest distance that Lesser Sandhill Cranes are likely traveling because the sample group was only 44 birds. Adding the 2 km recommendation called for in the Brown 1987 paper, any powerline (new or existing) within a minimum distance of 14.3 miles (23 km) from a roost site that could be hit by a crane because of construction activities presents a potentially deadly threat. There were no avoidance or minimization measures or mitigations for transmission lines (new and existing) that addressed impacts	In regard to the analysis of impacts and mitigation for impacts on lesser sandhill cranes, avoidance and minimization measures are not limited to the 5-km and 10-km commute distances analyzed in the EIR. As described in Mitigation Measure BIO-2c, bird flight diverters that are visible under poor conditions would be placed on all new project lines consistent with APLIC guidance (2006, 2012).

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	for any cranes beyond 3 miles from roost sites, Greater Sandhill Cranes or Lesser Sandhill Cranes. This is even though obvious mitigations exist like requiring the installation of flight diverters on any existing transmission lines within 14.3 miles of a roost site that cranes might hit if they were flushed while foraging, particularly on foggy and dark days.	
733-95	For new power lines, the avoidance and minimization measures should extend to include any line within a minimum of 6.8 miles (11 km) of roost sites for Greater Sandhill Cranes, and a minimum of 14.3 miles (23 km) for Lesser Sandhill Cranes. These avoidance and minimization measures will help but cranes, both Lesser Sandhill Cranes and Greater Sandhill Cranes, could still be killed or harmed by transmission lines as a result of construction activity for the DCP because of the significant number of days of very cloudy weather in the Delta when cranes are present, which could make even the best flight diverters inadequate. The transmission line impact potentiality is unavoidable and potentially significant, potentially fatal to Greater Sandhill Cranes, and no mitigation measures were provided for Lesser Sandhill Cranes that could be harmed. Even if the avoidance and minimization measures are improved with more flight diverters on existing lines it is still likely that Lesser Sandhill Cranes will be harmed or killed by collisions with immovable objects on very foggy and dark days.	Please see response to comment 733-94 regarding lesser sandhill cranes. In regard to the comment suggestion that the mitigation should include placement of bird flight diverters on existing lines in the study area, as described above, the environmental commitments described in Appendix 3B, and the implementation of the measures in Mitigation Measure BIO-2c and Mitigation Measure BIO-33 are sufficient to avoid and minimize potentially significant impacts on sandhill cranes.
733-96	The proposed avoidance and minimization as well as mitigation measures are not adequate to avoid killing or harming Greater Sandhill because of construction and operation related noise created by the DCP. This noise has the potential to cause cranes to flush and possibly hit transmission lines (new and existing). This DEIR suggests that cranes have been seen to acclimate to steady sources of noise, like that from a busy freeway. It also states that: “less is known about the ability of	As the comment notes, the EIR includes a discussion to provide the information that is known about sandhill crane reactions to varying sources and types of noise and a discussion of what sources and types of noise sandhill cranes are exposed to within the study area under existing conditions. Contrary to the commenter’s assertion that the EIR undermines the analysis presented in Chapter 13, Terrestrial Biological Resources, the EIR instead presents a breadth of information that supports the statement in the EIR that potential

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	sandhill cranes to habituate to intermittent noise such as that associated with the operation of heavy equipment (e.g., pile drivers, construction cranes, compressors, heavy trucks).” A discussion followed this admission in an apparent effort to refine what is known about Sandhill Cranes ability to habituate to intermittent noise. Hazing techniques are regularly employed in North America to prevent sandhill cranes from causing significant crop damage or colliding with aircrafts (Barzin and Ballinger 2017:1). Hazing techniques such as propane cannons and pyrotechnics have been reported to lose their effectiveness as deterrents once individuals are no longer naïve to the auditory disturbance, particularly in high-value habitat (Barzin and Ballinger 2017:5–6), suggesting that cranes can habituate to extreme and sporadic sounds. Disturbance from waterfowl hunting can reduce habitat availability to sandhill cranes (Ivey et al. 2014a:27; Ivey et al. 2014c:16–17) and cranes have been observed to avoid roost sites once opening day of hunting season has begun (Ivey et al. 2014c:16). Sandhill cranes are present in the study area during the waterfowl hunting season (approximately October 23 through January 31), and hunting occurs throughout the study area on Bouldin Island, Little Mandeville Island, private duck clubs, Stone Lakes NWR within 1 mile of known roost sites, and from public waterways throughout the Delta. Cranes are therefore exposed to irregular, explosive sound from shotguns under existing conditions (a 12-gauge shotgun blast is approximately 165 dB) and respond to those disturbances throughout the winter season (Ch. 13, p. 266).	effects of noise likely depend on multiple factors, including habitat characteristics and disturbances under existing conditions. The EIR further states that because of the influence of multiple environmental factors and because of the duration and nature of the construction activities, the impact analysis assumes that construction-related noise levels could displace cranes, quantifies the acres of modeled habitat that may be affected by sound levels that are greater than 50 dBA, and includes commitments in Mitigation Measure BIO-33 to compensate for that affected habitat for the duration of construction. Please see response to comments BIO 733-74, 733-86, 733-93, and 733-95 in respect to environmental commitments and mitigation measures that will reduce impacts to a less-than-significant level. Also, as described in Mitigation Measure BIO-33, noise monitoring will be conducted prior to and during construction to better understand sound levels under existing conditions. Noise monitoring will also be conducted during the pile drive test program to determine site-specific sound levels and the effectiveness of existing noise barriers (such as levees or embankments) and artificial barriers in reducing sound levels. As described in the Mitigation Measure, options to reduce noise (e.g., installation of shrouds at pile driving locations at the intakes and other construction sites) will be implemented before installing noise barriers at the edge of the construction boundary.
733-97	The referenced Barzin and Ballinger paper references the use of propane cannons and pyrotechnics. These devices appear to	In regard to the commenter’s statement regarding the potential for take of greater sandhill cranes, Impact BIO-33 describes reasonable measures that

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	have been used in the Spring to protect corn kernels planted in the ground from cranes. It should be noted that crane behavior can vary depending on the season, and that how a crane behaves in the Spring (up on their breeding grounds) cannot be seen as a surrogate for how a crane will behave on its wintering grounds. And, even if the devices are not effective long term, the paper clearly indicated that it was initially effective, especially with naïve birds. Juvenile cranes would fit the definition of "naïve" and these are the same cranes most likely to flush when disturbed and hit a powerline, and, as has already been indicated in this comment letter, the modeling for powerline strikes is deficient to even determine the level of impacts. During the foggy wintering season in the project area, "naïve" Greater Sandhill Cranes would be particularly vulnerable to sound impacts and with the current avoidance measures "take" as defined by section 86 of CDFW code is a definite possibility.	will be implemented to minimize potential impacts on sandhill cranes. Please see response to comments 733-84 and 733-85 regarding these measures, including work windows surveys, monitoring, compensation, and compliance with APLIC recommendations (2006, 2012). With these measures in place, the project would not result in a substantial reduction of the population or restrict the range of the species, or, in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures the project would not be expected to increase the potential for take of greater sandhill crane. In regard to the sufficiency of the model to determine potential impacts from powerlines and the potential for sandhill crane impacts to occur at a greater distance than was analyzed in the EIR, please see response to comment 733-86 regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA in Impact BIO-33. Please also see Mitigation Measure BIO-2c, which, as described in response to comment 733-86, requires that all new project lines be fitted with bird strike diverters that are visible under poor (e.g., foggy) conditions consistent with APLIC recommendations (2006, 2012).
733-98	It is also worth noting that the suggestion that cranes could potentially acclimate to the construction disturbance is substantially undermined by the quote below: Construction activities would not be expected to injure or kill sandhill crane individuals. If a bird is present in a region where construction activities are occurring, the bird would be expected to avoid the slow-moving or stationary equipment and move to other areas, as they would move away from any other trucks or farm equipment that could be present within or adjacent to agricultural habitats under existing conditions (Ch.	Please refer to response to comment 733-96 with respect to the analysis of the potential effects of noise on sandhill cranes in the EIR. Please see response to comment 733-86 regarding traveling distances of the greater sandhill crane and the impact analysis approach in Chapter 13. Please also see response to comment 733-86 regarding the reasonable assessment of foreseeable impacts under CEQA and the description of reasonable measures that would be implemented to minimize potential impacts on sandhill cranes.

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	13, p. 265-6). This quote suggests that cranes are going to move (flushing is indeed a type of movement) to avoid disturbances, which due to the nature of the construction is likely going to have a sound component. So, this DEIR is counting on them moving and not habituating and staying close to construction disturbances, which is quite different from some of the inferences/suggestions made in the last quote from this same DEIR. We are in general agreement that cranes will avoid these disturbances and we believe that the sound component of the construction is a big part of why they would move. But the problem we have been consistently bringing up is that the movement (flushing) is fraught because they could be injured or killed by obstructions in their environment at far greater distances from their roost sites than this DEIR analyzed or considered, or by obstructions other than new transmission lines within the areas that were analyzed.	
733-99	Limiting construction activities greater than 50 dba to one hour before sunrise until one hour after sunrise does not limit heavy equipment or other vehicles from driving haul roads and access roads and potentially flushing cranes which could result in transmission line strikes – and here again the outdated roost site data and deficient daily commuting analysis are problematic. Similarly, construction sounds below 50 dba from stationary sources (intakes, shafts, etc.) have the same capability of flushing cranes.	Please see response to comments 733-84 through 733-98 regarding the adequacy of the approach to the greater sandhill crane analysis, noise, and mitigation measures.
733-100	On the discussion about hunting disturbances in the Delta, it is important to highlight that the DEIR states, based on the 2014 Ivey paper: “cranes have been observed to avoid roost sites once opening day of hunting season has begun,” suggesting a quite significant behavioral modification because of the	Please see response to comments 733-84 through 733-98 regarding the adequacy of the approach to the greater sandhill crane analysis, noise, and mitigation measures.

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	gunfire." The DEIR quote also states that: "Cranes are therefore exposed to irregular, explosive sound from shotguns under existing conditions (a 12-gauge shotgun blast is approximately 165 dB) and respond to those disturbances throughout the winter season." The cranes' response is the obvious concern, but it is made to sound like the cranes are adjusting to the hunting and therefore they can adjust to the noise impacts from the DCP. Beyond abandoning roost sites and possibly nearby foraging sites because of the gunfire, they may also be undergoing stress, which is harmful to their survival and their future ability to be successful breeders. The response to gunfire seems to undo the suggestion that cranes easily habituate to extreme disturbance as evidenced by avoiding roost sites. This suggests that the enhanced feeding opportunities' mitigation provided in Bio -33 may help offset the reduction in foraging habitat available, but it is unclear how this might address the stress component of their response.	
733-101	There are field tested techniques available that could help determine if specific aspects of the construction process are stressing the cranes. Glucocorticoid metabolites have been used to gauge stress levels in cranes in the field.[Footnote 9: 9 Barcelo, Ingrid, "Winter Ecology of Sandhill Cranes (Grus canandensis) in Northern Mexico" (2012). Dissertations & Theses in Natural Resources. 65.] Collecting and analyzing field samples for the presence and quantity of this stress indicator before construction begins and then comparing that to samples collected during construction could provide important feedback on whether the avoidance and minimization measures are effective or if they might need to be modified and improved.	Please see response to comments 733-84 through 733-98 regarding the adequacy of the approach to the greater sandhill crane analysis, noise, and mitigation measures.
733-102	The 15 mile an hour speed limit on the dirt haul roads (3b-24), such as those needed to access the intakes, might be effective	In regard to the 15 mile-per-hour speed limit, the commenter notes that under existing conditions, slow moving vehicles, or vehicles that stop for

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	to avoid running over small species in the roadway, or flying across the roadway, but it is potentially more of an impact for cranes. Using the unpaved section of Staten Island Road as a surrogate, slowing down from the speed limit of 25 miles an hour there to take a photo of cranes near the road inevitably causes them to flush. Similarly, driving very slowly (10 to 15 miles an hour) along the same road hoping to get photos of cranes near the road also causes them to flush before a photo can be taken. Driving at the speed limit of 25 miles per hour often does not cause the cranes to flush. So, the 15 mile per hour speed limit on dirt roads might be good for avoiding roadkill, but it is also potentially problematic for flushing birds. Slow moving vehicles on the dirt haul roads may flush more birds than faster moving vehicles. Of concern here is that Greater Sandhill Cranes that are flushed may be killed or harmed, particularly on foggy and dark days. And again, the existing transmission line analysis, because of outdated roost site data and the approach used to determine daily commute distances for cranes, along with not considering other obstructions on the landscape that a crane might hit, was deficient and therefore unable to determine if cranes may be killed when flushed by these slow-moving vehicles.	photographs directly in front of cranes, can cause the birds to flush. Staten Island Road is regularly travelled during the months that sandhill cranes are present in the study area, and individuals and groups regularly slow their vehicles and park adjacent to sandhill crane roost sites to observe and photograph cranes. Impact BIO-33 includes an acknowledgement that sandhill cranes are sensitive to vehicle and human disturbances and that the presence of vehicles and humans can cause sandhill cranes to move/flush. However, there is no scientific evidence that project-related vehicles moving at 15 miles per hour would increase the potential for cranes to flush, be killed, or be harmed above the disturbance of vehicles travelling at similar speeds and stopping and the human disturbance of people getting out of their vehicles to observe and take photographs adjacent to sandhill cranes under existing conditions. Please see response to comment 733-86 in this letter table regarding the use of 5-km and 10-km commute distances for greater and lesser sandhill cranes and the reasonable assessment of foreseeable impacts under CEQA for Impact BIO-33. Please also see response to comment 733-93 in this letter table for a discussion of Mitigation Measure BIO-2c and the requirement that all new project lines be visible under poor (e.g., foggy) conditions consistent with Avian Power Line Interaction Committee recommendations (2006, 2012).
733-103	The intermittent nature of vehicles driving down the new construction roads makes habituation less likely for cranes. This would certainly also be the case during the operation of the project because maintenance and operation vehicles would be extremely intermittent, suggesting that any nearby cranes encountered would be flushed and vulnerable to mortality as a result. The intermittent usage of the haul roads exacerbates	Please see response to comment 733-102 regarding the evaluation of the use of construction roads and greater sandhill cranes.

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	the likelihood that cranes will be flushed – claims that the cranes might be able to acclimate to steady vehicular flows is dismantled by the reality that for at least some of the construction, an for all of the operation and maintenance, the usage will be very intermittent and highly likely to flush any nearby cranes encountered, which on foggy days could result in bird strikes on power lines.	
733-104	This DEIR admits, in a quote we used earlier, the likelihood of flushing cranes but describes it as "moving:" Construction activities would not be expected to injure or kill sandhill crane individuals. If a bird is present in a region where construction activities are occurring, the bird would be expected to avoid the slow-moving or stationary equipment and move to other areas, as they would move away from any other trucks or farm equipment that could be present within or adjacent to agricultural habitats under existing conditions. (Ch. 13, p. 265-6)	Please see response to comment 733-102 regarding the evaluation of the use of construction roads and greater sandhill cranes.
733-105	The DEIR also admits that maintenance activities would disturb cranes: The maintenance of aboveground water conveyance facilities for all project alternatives would result in periodic disturbances that could affect roosting and foraging sandhill cranes. Maintenance activities across all facilities that could affect sandhill cranes (all project alternatives) include repaving of access roads every 15 years, semiannual general and ground maintenance (e.g., mowing, vegetation trimming, herbicide application), and daily or weekly inspections by vehicle. Noise and visual disturbances from these maintenance activities at the intakes and shaft sites could disturb greater and sandhill cranes roosting or foraging in the vicinity of work areas if	Please see response to comments 733-82 through 733-104 regarding the complete and adequate analyses of sandhill cranes in the EIR including consideration and evaluation of the types of noise that could be generated during maintenance activities.

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	activities are conducted between October and mid-March (when cranes are present in the study area). However, as described above under construction-related effects, there is insufficient data to assess the effects of maintenance noise levels would have on sandhill crane behavior, relative to existing conditions. Maintenance activities would generally be conducted during the day, except for emergency maintenance, and would therefore not require additional lighting (Ch.13, p. 273).	
733-106	It is difficult to impossible to conclude that with the proposed avoidance measures that for the 12 plus years of construction, followed by the decades of maintenance, that all cranes flushed by vehicles or other construction activity will avoid mortality from hitting power lines or poles or fences or other obstructions during foggy and dark days. Especially given the deficient analysis of existing power lines and other obstructions within 11 km of roost sites, and the use of outdated roost site data.	In regard to the comment on the adequacy of the models, please see response to comment 733-85 and the discussion of the use of modeled roost site data. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the use of habitat models and how survey data will be used to assess suitable and occupied habitat within the study area. Please see response to comment 733-86 regarding the reasonable assessment of foreseeable impacts under CEQA and the description of reasonable measures that would be implemented to minimize potential impacts on sandhill cranes. With the measures described in response to comment 733-86, the project would not result in a substantial reduction of the population or restrict the range of the species, or in this case, either subspecies, and would therefore not result in a significant impact. With the implementation of these measures, the Delta Conveyance Project would not be expected to increase the potential for take of greater sandhill crane in the project area.
733-107	Staten Island is an important wintering area for sandhill cranes and regularly hosts a high density of greater and lesser sandhill cranes, particularly early in the winter season (Ivey et al. 2014b:9). Interested parties provided information that was used to identify a suitable location for the tunnel shaft on Staten Island (under Alternatives 1, 2a, 2b, and 2c) in a	Chapter 13, Terrestrial Biological Resources, Impact BIO-33 has been revised to more appropriately characterize the Stakeholder Engagement Committee coordination on the tunnel maintenance shaft location on Staten Island. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or

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	previously disturbed location adjacent to a road and powerline on the northern portion of the island (Delta Conveyance Design and Construction Authority 2022d:4). To be clear, the interested parties who provided information (Sean Wirth, who was a terrestrial species stakeholder during some of the SEC process, provided this input after consultation with Dr. Gary Ivey) "that was used to identify a suitable location for the tunnel shaft on Staten Island" did not characterize the location as "suitable," but very clearly indicated, on more than one occasion, that the location near the existing structures on the northeast side of the island was "less horrible" than other options. The placement of a giant access shaft right in the middle of ground zero for crane populations in the Delta is flawed through and through no matter where the tunnel shaft was placed on the island. The enormity of the structure would cause a permanent visual disturbance for cranes, which could result in the permanent abandonment of the temporary roosting area north of the proposed location because of the impaired site lines created by such a large structure, would disrupt both roosting and foraging during construction, and would pose a permanent strike hazard for cranes on very foggy and dark days because of its height.	required additional mitigation measures to which DWR was unwilling to commit. In regard to the visual disturbance of the tunnel maintenance shaft on sandhill cranes, Chapter 13, Terrestrial Biological Resources, Impact BIO-33 describes potential visual disturbances on sandhill cranes and mitigation measures to reduce, avoid, and minimize potential construction effects associated with the shaft on Staten Island. This shaft is a facility that is only associated with Alternatives 1, 2a, 2b, and 2c, and thus the potential impacts described and the mitigation specific to Staten Island are applicable only to Alternatives 1, 2a, 2b, and 2c. Pearse et al. 2017 found that presence of disturbance features related to human activity (e.g., roads, bridges, dwellings) within 200 meters of roost sites reduced the probability of crane use. Sandhill cranes may avoid areas around the shaft site, including the temporary roost site, as they may avoid existing roads, buildings, and other structures that are present on Staten Island. During construction, the tunnel maintenance shaft would have six structures associated with it to store construction equipment and crews plus temporary water treatment and storage tank. In regard to the statement that the Delta Conveyance Project would disrupt roosting and foraging behaviors, Chapter 13, Impact BIO-33 describes potential disturbances on sandhill cranes and their habitat, mitigation measures to reduce, avoid, and minimize potential effects, and compensation by providing supplemental foraging habitat prior to and concurrent with impacts in addition to compensation for permanent impacts on roosting and foraging habitat through the Compensatory Mitigation Plan (Appendix 3F,

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		Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources).
733-108	The implementation of the CMP would be required to offset the loss of roosting and foraging habitat by creating roosting and foraging habitat and protecting agricultural foraging habitat for sandhill cranes (Appendix 3F, Attachment 3F.1, Table 3F1-3, CMP-18a: Sandhill Crane Roosting Habitat, and CMP-18b: Sandhill Crane Foraging Habitat), which would reduce the impact associated with habitat loss to less than significant. The proposed CMP that uses Bouldin Island for creating new roost and forage sites for Sandhill Crane is inappropriate for impacts to cranes at Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve because it does not benefit the populations that are impacted by construction of the intakes and the launch shaft and RTM storage planned for north of Twin Cities road. During the Terrestrial Stakeholder meetings back when the tunnel/s was part of the BDCP, there was agreement to build a roost and forage complex that would bridge the Stone Lakes and Cosumnes River populations providing continuity between two of the populations of cranes that were going to be severely impacted by the project. This possibility still exists as a shadow in the current DEIR: The CMP (see Impact BIO-1 for a summary discussion of the CMP) would offset the loss of greater sandhill crane and lesser sandhill crane roosting habitat by creating roosting habitat on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes NWR and Cosumnes River Preserve, and managing these areas in perpetuity (Appendix 3F, Attachment 3F.1, Table 3F.1-3, CMP-18a: Sandhill Crane Roosting Habitat).	Part of this comment compares certain aspects of the Delta Conveyance Project EIR to the previous Bay Delta Habitat Conservation Plan (BDCP)/California WaterFix DEIR/DEIS. Thus, portions of the comment do not directly address the Delta Conveyance Project Draft EIR and DWR is not required to respond to comments on projects that are no longer being pursued. However, DWR has reviewed the comment's content to determine whether the comment may be applicable to the proposed Delta Conveyance Project. The following response is provided for those elements of the comment that are applicable to the Delta Conveyance Project Draft EIR. Regarding the level of detail in the analysis of compensatory mitigation locations for sandhill crane, please see Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (CMP), section Mitigation Approach, which describes the three methods of mitigation under the CMP. Bouldin Island has been identified as an initial mitigation site, which has design details and acreages that can be analyzed. Please also see the Site Selection Criteria section in Appendix 3F for a discussion of how the initial mitigation sites were selected. The other approach that is applicable to sandhill crane compensation is the implementation of site protection instruments that would be used to manage property between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve. These site protection instruments are described in Appendix 3F, section Site Protection Instruments, and greater sandhill crane is identified as a target species for habitat conservation and management through site protection instruments, but these processes have not yet been developed to the same level of detail as the initial mitigation sites and therefore are described

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		more generally at this time. Both Bouldin Island and the locations between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve are considered adequate to provide and be managed for suitable sandhill crane habitat. The comment refers to the Stone Lakes and Cosumnes populations of sandhill crane. However, the only population of greater sandhill crane that winters in the study area is the Central Valley population, and similarly, the population of lesser sandhill cranes that winter in the study area is the Pacific Flyway population. As described in Chapter 13, in addition to the compensation for impacts through the CMP, foraging and roosting habitat would be established and managed for sandhill cranes prior to and concurrent with construction impacts to compensate for impacts on occupied habitat where sound levels are greater than 50 dBA. The newly established sites would be located within 1 mile of the disturbed habitat, providing habitat within the daily commuting distances of the sandhill cranes affected by construction activity. Please also see Common Response 11, Terrestrial Biological Resources and Compensatory Mitigation Plan, regarding the components of the CMP and also Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and Common Response 11 regarding the requirements of mitigation measures under CEQA and the adequacy of mitigation measures.
733-109	The use of Bouldin Island for the CMP gets significant analysis and discussion in this DEIR, whereas the connectivity option is only mentioned in the part of one sentence and is given no analysis or consideration beyond this half sentence mention. Bouldin Island might be an appropriate location to consider for	Please see response to comment 733-108 regarding use of Bouldin Island.

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	impacts to cranes on Staten Island (which is only relevant if the central alignment options are selected), but it is useless to address the impacts to the Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve crane populations. There should be a commitment to provide this connectivity and the FEIR should include the analysis and the consideration appropriate for the potential impacts of this more appropriate compensatory mitigation option to be compliant with CEQA.	
733-110	The presentation of the potential conflicts with the SSHCP was neither accurate nor complete and as a result was quite misleading and portrayed the conflict as very negligible, which is not the case. It is important to understand that the SSHCP is divided into Preserve Planning Units ("PPUs"). Each unit features different geologies and ecologies and was designed with a specific focus of protecting specific covered species. The proposed massive-scale construction in and near Stone Lakes National Wildlife Refuge and the Cosumnes River Preserve – including the launch shaft and RTM storage site north of Twin Cities Road - is within PPU 6, which is an agricultural and grassland unit, as explained in the SSHCP: PPU 6 encompasses 95,196 acres outside the UDA in the southwestern portion of the Plan Area. PPU 6 is bisected by Interstate 5. It is bordered on the west by the Sacramento River, on the south by the Mokelumne River, and Dry Creek. The dominant land covers in PPU 6 are Agriculture (58,458 acres) and Valley Grassland (17,633 acres). All of the SSHCP covered birds have been documented in PPU 6, including 281 (71%) occurrences for Swainson's Hawk, 190 (92%) occurrences for Greater Sandhill Crane, and 55% or more of the occurrences for Northern Harrier (Circus cyaneus) and White-tailed Kite (Elanus leucurus). Put simply, PPU 6 is the population stronghold for Greater Sandhill Crane and Swainson's Hawk.	Regarding the assertion that PPU 6 is the stronghold for Swainson's hawk and greater sandhill crane, it is assumed that this comment refers to the proportion of those species within the South Sacramento Habitat Conservation Plan (SSHCP) plan area, not the stronghold for the populations of these species. The EIR describes in Appendix 13B, Species Accounts, the importance of the Central Valley and the Delta for these species. Regarding the overlap of the Delta Conveyance Project with the SSHCP, the table cited in the comment (Table 13-102) provides a consistent overview of the interaction of the Delta Conveyance Project study area with all relevant HCPs. Although this table (titled Summary Table of Conservation Plans that Overlap with the Project Study Area) compares the area of overlap to the entire SSHCP plan area, as stated in Chapter 13, Terrestrial Biological Resources, the area of the SSHCP that is analyzed is limited to PPU 6 and information specific to PPU 6 is presented in Appendix 13D, Overlapping Habitat Conservation Plan Permanent Surface Impacts. The table in Appendix 13D titled Overlapping Habitat Conservation Plan Permanent Surface Impacts-All Project Alternatives presents the impacts of the project alternatives, using best available data, as a proportion of habitat types available within the area of overlap. For agricultural land and grassland, this ranges from less than 0.1% to 2.2%. This approach accurately represents the impacts on

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		available habitat in the overlap area of the project study area and PPU 6.
733-111	Comparing the DCP area overlap to the entire footprint of the SSHCP is an irrelevant and useless comparison. The only worthwhile comparison would be with PPU 6. The overlap with PPU 6 is over 46%, which leaves a very different impression as to the potential level of conflict compared to the 14% overlap with the entire plan of the SSHCP presented in this DEIR in table 13-102. The biologically relevant overlap is large and concerning. This DEIR is aware of the overlap with PPU 6 but does not highlight it as the relevant unit for comparison but rather includes it in the context of the agricultural land and grassland the SSHCP needs for its conservation strategy (and it does so incorrectly, which will be discussed later): “Approximately 50% of the SSHCP PPU 6 overlaps with the study area (Ch. 13, p. 449).” This apples to oranges irrelevant comparison continues in table 13-103 and the discussion of the relationship between the impact acreage of the DCP and the total acreage of the HCPs, as well as for the acreage of the HCPs within the project area. Table 13-103 showed that, depending on the alternative, the proportion of surface impacts relative to the SSHCP plan area range between .1% and .2%. Again, we are presented with an extremely low number that would lead one to believe that there is no discernable conflict with the SSHCP – only a 14% plan overlap and an impossibly small .1 to .2% for surface area of impacts within the SSHCP. But this approach provides little useful information for what the scale of the actual conflict with the SSHCP is. A more appropriate way to understand the conflict is through the impact of the DCP on the “feasibility of acquisition” for the SSHCP in PPU 6.	Please see response to comment 733-110 regarding the overlap of the Delta Conveyance Project with the SSHCP. With regards to providing mitigation within the range of sandhill cranes affected by the project, as described in Mitigation Measure BIO-33 suitable, high-value habitat will be protected and managed to compensate for occupied habitat disturbed by construction noise greater than 50 dBA Leq (1 hour). Enhanced foraging habitat will be located outside the construction-related 50 dBA Leq (1 hour) sound level contour and within 1 mile of the affected habitat to mitigate for construction-related disturbance. Rather than an "apples to oranges comparison," the analysis in Impact BIO-54 presents the area of overlap consistently for all HCPs and the impact acres are analyzed as a proportion of the overlap area. This approach is widely used, based on known information, and is adequate to disclose the impacts under CEQA. The "feasibility for acquisition" approach suggested by the commenter, which is based on available inventory, is not feasible because there is not sufficient information in the SSHCP to calculate the available inventory. The EIR approach using dominant land cover types uses the best available information and meets the needs of CEQA. Please also see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the use of best available tools and science.

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733-112	But before discussing the "feasibility of acquisition," it is necessary to consider whether or not the habitat acquisition for impacts by the project in the PPU 6 overlap area need to be mitigated within the footprint of PPU 6. Chapter 7 of the SSHCP indicates that 92% of occurrences and almost all of the high population usage roost sites for cranes, and 71% of the Swainson's Hawks occurrences are in PPU 6. Greater Sandhill Cranes forage extensively within a 3.1 mile (5 km radius) of their roost sites (Ivey et al, 2015), and the vast majority of roost sites in the entire SSHCP Area are within PPU 6. Since many of the impacts associated with the DCP would occur within the footprint of the SSHCP and PPU 6, it is important that those impacts also be mitigated within PPU 6 such that the populations that are impacted receive the benefit of the mitigations. This is especially important for the impacts in Stone Lakes National Wildlife Refuge because the crane population there is the most constrained in the region with extensive urbanization to the north and the east.	Regarding the assertion that mitigation areas must be located in SSHCP PPU 6, the project is not a covered activity under the SSHCP and therefore not subject to the requirements of the SSHCP. As required by CEQA, the analysis focuses on the impacts of the Delta Conveyance Project on the SSHCP. The location of mitigation areas will be determined with approval of the appropriate regulatory agencies (e.g., CDFW, USFWS, USACE), as described in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (CMP). The CMP includes multiple mitigation approaches for species such as sandhill crane and Swainson's hawk. For example, sandhill crane habitat would be located on Bouldin Island or in suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve (i.e., PPU 6). Similarly, for Swainson's hawk, compensation lands could occur on Bouldin Island or through other site protection instruments, which could include PPU 6. Further detail has been added to Impact BIO-54 to clarify that the CMP contains a commitment to coordinate with the implementing entities of adopted HCPs before decisions are made on acquiring site protection instruments within their respective plan areas. The goal of the coordination is to ensure that DWR's acquisitions to meet mitigation needs do not result in conflicts with these plans and their ability to achieve their biological goals and objectives (Appendix 3F, Site Protection Instruments section). Therefore, doubling the impact footprint, as proposed by the comment, is not necessary.
733-113	Similarly, the impacts to the Cosumnes River Preserve cranes will go on for more than a decade and using Bouldin Island or other far-flung locations will provide no relief or compensation for the cranes impacted there. The mitigations need to be provided within the ranges of the cranes that are impacted to compensate the populations impacted. Specifically, foraging	With regards to the comment concern about locating sandhill crane, Swainson's hawk, white-tailed kite, and northern harrier mitigation in PPU 6 or within 1.2 miles of an active roost site, preliminary mitigation sites have been identified in the CMP. However, as stated above, other site protection instruments will also be implemented at locations subject to CDFW approval. Again, as noted earlier, DWR

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	habitat within the crane population stronghold in the SSHCP Area needs to be mitigated within that same stronghold; mitigation for foraging habitat loss also should be located within 1.2 miles of an active roost site to be the most effective. Similarly, the impacts to Swainson's Hawks, White-tailed Kite and Northern Harrier should also be mitigated as proximal to the impacts as possible. This means that the habitat acquisition needs of the DCP must be considered along with the project's impact footprint when examining conflict with the SSHCP. This translates to, at a minimum, doubling the impact footprint so that it includes at least a 1:1 mitigation ratio for compensatory habitat acquisition.	will coordinate with implementing entities of HCPs prior to project construction and mitigation implementation. See comment 733-110 Regarding the assertion that PPU 6 is the stronghold for Swainson's hawk and greater sandhill crane. Regarding to Swainson's hawk mitigation elevations, the EIR commits DWR to protecting foraging habitat at elevations equal to or greater than -1 foot NAVD88 or maintaining levees around protected habitat to minimize the risk of flooding and loss of suitable habitat (Attachment 3F-1, Compensatory Mitigation Design Parameters).
733-114	The Chapter 7 Conservation Strategy of the SSHCP lays out the habitat acquisition targets for each PPU in the Plan Area. For PPU 6, page 7-89 of the SSHCP ("Overview of Conservation Strategy in PPU 6") states: "Approximately 9750 acres will be preserved in PPU 6. According to Table 7-2 ("Summary of SSHCP Preserve System and Existing Preserves by Planning unit") on page 7-63 of the draft SSHCP, 28,079 acres of PPU 6 are already in existing preserves. And according to section 7.5.2.3 (SSHCP, p. 7-88), there are currently 3,436 acres of low-density development in PPU 6. Simple math (total acreage minus the land already preserved and the land already developed) yields a total of 63,657 acres of available inventory in PPU 6, not accounting for sea level or floodplain restrictions. And it should be noted that Swainson's Hawk mitigation must be located above sea level to satisfy CDFW requirements. Approximately 50% of the SSHCP PPU 6 overlaps with the study area (County of Sacramento et al. 2020: Figure 7-2). The SSHCP habitat conservation goal for PPU 6 of 8,465 acres of agriculture represents 14% of available agricultural land cover	Please see responses to comments 733-110 through 733-113 regarding the SSHCP, the analyses contained in the EIR, and mitigation measures.

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	and 623 acres of grassland represents 4% of available grassland habitat in PPU 6 (County of Sacramento et al. 2018:7-87–7-88, Table 7-6) (Ch. 13, p. 449). Using the citations provided, the way these calculations were done was by taking the 8,466 acres of agricultural land and 623 acres of grassland listed in table 7-6 of the SSHCP and dividing by 58,458 acres of agriculture and 17,633 acres of grassland listed as the "dominant land covers in PPU 6" listed in Chapter 7, page 88 of the SSHCP. As a ground truth to this math, adding 58,458 acres of agricultural land to the 17,633 acres of grassland yields a total of 76,091 acres. But as we already know from the math in the last paragraph, the inventory available to the SSHCP is not more than 63,657 acres, which is 12,434 acres less than 76,091. A closer look at the quote above exposes the problem. Those acreage amounts in those citations were not provided as available inventory but instead as "dominant land covers." To figure out the available inventory one must do the math that we did in the last paragraph, which yielded 63,957 acres. There is not enough information in the SSHCP to figure out how much agricultural land and grassland is available in PPU 6 because percentages of the dominate land cover numbers (58.458 acres for agriculture and 17,633 acres) are included in the 28,079 acres of existing conservation. Since it is not possible to determine which portion of the 63, 657 acres is agricultural land and which is grassland, it makes sense to consider the entire combined 9750 acres in relation to the 63,657 acres, which indicates that for the conservation strategy of the SSHCP to be successful, 15.3% of all available inventory in PPU 6 would need to be acquired.	
733-115	The SSHCP is only allowed to acquire properties to satisfy its habitat mitigation requirements from willing sellers and the	Please see responses to comments 733-110 through 733-113 regarding the SSHCP, the analyses contained in the EIR, and

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	reality is that some landowners may wish to sell, and some may not. This uncertainty is encompassed in the concept of the "feasibility for acquisition ratio." Given the need for willing sellers, "the feasibility for acquisition ratio" represents how much habitat is available compared to how much habitat is needed for mitigation. If there are 100 acres of inventory, and fifty are needed for mitigation, the "feasibility for acquisition ratio" is 50%. The lower the "feasibility for acquisition ratio," the more likely that enough willing sellers will be found to satisfy the acquisition requirements of the Conservation Strategy of an HCP.	mitigation measures. Regarding the SSHCP feasibility for acquisition ratio, the location of grassland mitigation would be determined with approval of CDFW and USFWS; much of the mitigation acres will be located outside of the SSHCP plan area at the initial mitigation sites and in areas deemed by the regulatory agencies as suitable for compensatory mitigation. In addition, as stated above, the CMP contains a commitment to coordinate with the implementing entities of adopted HCPs before decisions are made on acquiring site protection instruments within their respective plan areas. (Appendix 3F, Site Protection Instruments section). Coordination with the implementing agencies will help ensure that the project compensatory mitigation would not increase the feasibility for acquisition ratio to a level that conflicts with the SSHCP goals.
733-116	The California Department of Fish and Wildlife ("CDFW") maintained during the preparation of the SSHCP that the Plan should strive for a ratio of 15% or less. Beyond increasing the likelihood that enough willing sellers would be available to successfully implement the Conservation Strategy, such a low ratio would go a long way to avoiding what has happened in the Natomas Basin Habitat Conservation Plan where so little inventory can be found for mitigation, which has resulted in exorbitant prices being paid for rice fields. These costs and the lack of availability led to a developer purchasing Swainson's Hawk mitigation within 200 feet of one of Sacramento Metropolitan Airports runways because little else could be found.	Please see responses to comments 733-110 through 733-113 and 733-115 regarding the SSHCP, the analyses contained in the EIR, and mitigation measures.
733-117	The effect on the "feasibility for acquisition ratio" is where the true conflict with the SSHCP becomes clear. As has already been established, the existing "feasibility for acquisition ratio" for the SSHCP for PPU 6 is 15.3%. It is likely that if the land covers were able to be broken out by category(which there is not enough information to do), the feasibility for acquisition	Please see responses to comments 733-110 through 733-113 and 733-115 regarding the SSHCP, the analyses contained in the EIR, and mitigation measures.

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	for agricultural land in PPU 6 would be quite a bit higher. The range of ground impacts from the DCP within PPU-6 presented in table 13-103 of this DEIR is 192.82 acres to 698.93 for the various alternatives. Those ranges need to be at least doubled to include the biologically appropriate habitat mitigations that need to be acquired within PPU-6. This causes the range to increase from 385.64 acres to 1,397.86 acres (one half for impact and one half for mitigation). Adding this range to the conservation target for the SSHCP in PPU 6 (9,750 acres) yields a range of 9,942.82 acres to 11,147.86 acres. Taking that range and determining the new "feasibility for acquisitions ratio" for the SSHCP combined with the DCP increases the ratios from the 15.3% without this project to a range of 15.9% to 17.5%. This is the best numerical indication and measure of the conflict with the SSHCP.	
733-118	PPU 6 is already a constrained landscape to work with to achieve 9750 acres of habitat acquisition based on the "feasibility for acquisition ratio" starting out a 15.3%, not accounting for restrictions due to elevation or floodplain. The DCP effectually reduces the available land covers in PPU 6 for mitigation and increases the "feasibility for acquisition ratio." So, the DCP clearly conflicts with the SSHCP by driving its already too high "feasibility for acquisition ratio" even higher. Additionally, it is not clear how much overlapping conservation benefit—one habitat type benefitting multiple species—is planned in the proposed habitat acquisition mitigation or is even possible based on what might be available as inventory. So the number of acres needed in PPU 6 could increase for the DCP, making the ratio even worse.	Please see responses to comments 733-110 through 733-113 and 733-115 regarding the SSHCP, the analyses contained in the EIR, and mitigation measures With regards to the comment that overlapping mitigation may not benefit all species, additional detail has been added to the CMP regarding management of habitats for multiple species. As noted earlier in this comment, coordination would help ensure that the project compensatory mitigation would not increase the feasibility for acquisition ratio to a level that conflicts with the SSHCP goals. None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
733-119	Chilling Effect of Delta Conveyance Eminent Domain on Willing Sellers for the SSHCP The DCP can take land by eminent domain for both the project footprint and for mitigation. The	As described in Appendix 3F, Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources, the initial mitigation sites would be on lands owned by DWR or acquired from willing

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	use of eminent domain to condemn properties needed for mitigation would have a substantial chilling effect on the willingness of sellers to participate in the SSHCP. A competing project taking land away forcibly with eminent domain for mitigation in the same small area of PPU 6 by the DCP could paint the SSHCP in the same negative light for many prospective sellers. The negative consequences to conservation because of predictable reactions of landowners to widespread use of eminent domain cannot be overstated and it would be a grave mistake to discount them.	landowners and mitigation credits would be purchased from approved banks. The EIR has been revised to include a commitment to coordinate with implementing entities of adopted habitat conservation plans that overlap with the study area before acquiring properties for site protection instruments to ensure the mitigation does not result in conflicts with these plans (Appendix 3F, in the section titled Mitigation Credits and Site Protection Instruments). None of the revisions described in the EIR resulted in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit
733-120	During a long series of terrestrial wildlife meetings for the earlier iteration of the DCP that was included within the BDCP, stakeholders pushed for Swainson's Hawk and Greater Sandhill Crane mitigation to be done in the footprint of Elk Grove's Sphere of Influence Amendment application that was rejected by the Local Area Formation Commission ("LAFCo") in 2013. The reasoning was that it would be extraordinarily difficult for the SSHCP to acquire mitigation in that footprint because of the inflated land prices there from built up speculative pressure, and this land was prime habitat for Swainson's Hawk, Greater Sandhill Crane, White-tailed Kite, and Northern Harrier; the area is also in immediate threat of being lost in the near future to urbanization. It was suggested that purchasing mitigation acreage there would have a greatly reduced effect on the SSHCP because the Plan did not have the financial structure to purchase much in that geography—the fee structure has the cost of 1,000 such acres amortized over the cost of all of the agricultural mitigation acres. We promoted the value of creating a greenbelt south of Elk Grove to insulate the habitats found	As described in Appendix 3F, Attachment 3F.1, Compensatory Mitigation Design Parameters, compensatory mitigation for greater sandhill crane and Swainson's hawk will be determined with CDFW approval. Greater sandhill crane roosting habitat will be protected on Bouldin Island or on suitable lands that provide connectivity between Stone Lakes National Wildlife Refuge and Cosumnes River Preserve; foraging habitat will be protected within 2 miles of known roost sites. Swainson's hawk foraging habitat will be protected within 3 miles of a known Swainson's hawk nest tree. It is possible that sites meeting these requirements could be located in the South Sacramento Habitat Conservation Plan footprint, pending CDFW approval. In addition, the EIR includes a commitment to coordinate with implementing entities of adopted habitat conservation plans that overlap with the study area, including the South Sacramento Habitat Conservation Plan, before acquiring properties for site protection instruments to ensure the mitigation does not result in conflicts with these plans (Appendix 3F in the section titled Mitigation Credits and Site Protection Instruments).

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	further south from urban pressure and the resultant spike in pricing due to speculation, improving on the SSHCP's chances of acquiring the acres it needs there. It was further argued that this would help with the success of the SSHCP because in the absence of imminent urbanization, it could increase the willingness of sellers and maintain the affordability of purchasing mitigation properties.	
733-121	The suggestion [to purchase mitigation acreage in the footprint of Elk Grove's Sphere of Influence] was rejected because this geography was not in the legislative boundary of the Delta and therefore would allegedly require legislation to amend that boundary if mitigation was to be contemplated there. And, since it was not within the project area of the NOP of the BDCP, that would need to be redone as well. But now, the DCP, like the Twin Tunnels iteration, is not beholden to the legislative boundary of the Delta and this is no longer a limiting factor. There would be substantial impacts from the construction and operations of the DCP to many of the species covered by the SSHCP, and many of those impacts, and the mitigation for those impacts, would occur within the same "inventory" footprint as the SSHCP, jeopardizing the success of the SSHCP. This suggestion would be a reasonable mitigation for the conflict with the SSHCP and the impacts to species within its footprint.	Please see response to comment 733-120 regarding Compensatory Mitigation Design Parameters. Please see responses to comments 733-110 through 733-113 and 733-115 regarding the SSHCP, the analyses contained in the EIR, and mitigation measures.
733-122	Table 13-106. Cumulative Impacts on Terrestrial Biological Resources from Plans, Policies, Programs (Ch. 13, p. 493) states: The South Sacramento Habitat Conservation Plan (HCP) is a regional plan to address issues related to species conservation, agricultural protection, and urban development in south Sacramento County. Adopted in 2018, the HCP covers 40 different species of plants and wildlife including 10 that are state- or federally listed as threatened or endangered, and	The analysis in Chapter 13, Terrestrial Biological Resources, under Impact BIO-54, references the correct, adopted version of the South Sacramento HCP. The EIR has been revised in response to this comment to correct the typographical error in the Chapter 13 table titled Cumulative Impacts on Terrestrial Biological Resources from Plans, Policies, and Programs to include the correct number of covered species under the South Sacramento HCP. None of the revisions described in the EIR resulted in a new significant

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	allow landowners to engage in the "incidental take" of listed species (i.e., to destroy or degrade habitat) in return for conservation commitments from local jurisdictions. The 2010 draft of the SSHCP had 40 covered species, but the Plan adopted in 2018 had 28 making one wonder if an older version of the Plan was referenced for the preparation of some of this DEIR. A careful examination should be done to ensure that all references to the older Plan are corrected to reflect the content of the adopted version.	environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
733-123	Environmental Commitment EC-14: Construction Best Management Practices for Biological Resources (Appendix 3B) would reduce the potential for the introduction and spread of invasive plants by ensuring that equipment used is cleaned and inspected before entering new areas. EC-14 (chapter 3b-27) only commits to cleaning and inspecting vehicles that will enter aquatic habitats. It only calls for cleaning of terrestrial vehicles, not the inspecting. 30.) All equipment used for construction and habitat creation, enhancement, and management will be cleaned prior to entering work areas and before moving between work areas. 31.) Equipment to be used in aquatic habitats will be thoroughly cleaned and inspected for aquatic invasive plant propagules and animal species before entering aquatic habitats. Given the threat of transporting terrestrial invasive plants, all equipment needs to be both thoroughly inspected and cleaned irrespective of whether it will be used in terrestrial or aquatic habitats.	Environmental Commitment EC-14 has been revised to clarify that DWR will ensure equipment is cleaned and inspected in both terrestrial and aquatic habitats. This revision did not result in a new significant environmental impact or substantial increase in the severity of an environmental impact or required additional mitigation measures to which DWR was unwilling to commit.
733-124	XIII. Land Use "Certain topics" discussed in this section are related to topics discussed in substantially greater detail in other sections of this DEIR (Ch. 14, p. 3). We recommend that DWR: • Provide a listing of "certain topics" and justifications for at least a three-part ranking of minimal, medial, and	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the length and complexity of the EIR. Chapter 14, Land Use, describes the thresholds of significance used to assess whether the project would result in significant impacts on land use under CEQA. The chapter also provides appropriate cross-references to guide the

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	"substantially greater" details, along with other designated sections. Provide CEQA references for such differences in settings and assessments. • DEIR/DEIS has too many scattered assessments and mitigations and figure descriptions thereby rendering the document as "Not Public Review Friendly" due to cross-sectional assessments and references and lack of proper referencing between related sections. • Provide a Subsequent/Supplemental DEIR where all subjects are covered equally for all alternatives, including those recommended additional alternatives, e.g., upgraded levees and channels and a straight inlet-southern termini tunnel (42 vs 48 miles).	reader toward relevant information that is covered in other chapters of the EIR. Please also see Common Response 1 regarding the approach and scope of analysis and Common Response 3, Alternatives Development and Description, regarding alternative selection and alternatives considered but eliminated. Please refer to Common Response 1 regarding the criteria for recirculation under CEQA, which the Draft EIR does not meet. Revisions to the Draft EIR or recirculation based on the concerns identified in this letter is not warranted.
733-125	The DEIR states that the Land Use chapter does not describe the land use setting or potential DCP effects in the SWP/CVP export service areas but refers reviewers to Chapter 31, Growth Inducement. Inadequate and incomplete land uses assessment, mitigation, and alternative comparisons are provided for the limited array of alternatives, and without numerical/quantified comparisons, this section is totally inadequate and not compliant with CEQA's requirements for alternative comparisons. • DWR should provide construction and operational impacts assessments for all alternatives and provide comparisons of proposed and additional alternatives with numerical/quantified parameters of comparisons. • DWR should provide direct DCP impacts of construction and presence for 100 years or periods equal to those of growth inducements for service areas.	The study area for the land use analysis includes those areas that could be directly affected by construction and operation of the project. Effects related to growth inducement in the export areas are appropriately covered in Chapter 31, Growth Inducement. The impacts listed in Appendix G of the CEQA Guidelines for land use cannot be assessed for more speculative actions that might occur in the export service areas beyond what is included currently in the analysis. Potential temporary or permanent direct or indirect impacts on land use in the SWP/CVP export service areas are evaluated in Chapter 31. In addition, there are no direct construction or operational effects in the SWP service area because the proposed project will restore the historical reliability of SWP water deliveries. Chapter 14, Land Use, consistent with the requirements of CEQA, does provide appropriate quantitative comparison of land use impacts for each of the alternatives in the table titled Land Use Designations (acres) inside the Water Conveyance Footprints by Alternative. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the scope of analysis and

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		co-equal level of evaluation, comparison of alternatives, analysis of the project as a whole, and the study area.
733-126	Both Chapter 14 and Chapter 31 discuss the topic of growth inducement. The DEIR states that Chapter 14 addresses the potential to induce substantial unplanned population growth and the potential to displace substantial numbers of people and housing are also discussed (Ch. 14, p. 9), while indirect impacts related to growth are also discussed in Chapter 31 including analysis of the direct growth inducement on employment, the extent of indirect growth inducement associated with construction of access roads which may remove an obstacle to growth of lack of roadway infrastructure, and indirect growth inducement associated with increased water supply reliability. DWR must: • Provide integrated review for land use induced development due to employment increases when no additional water supply will be provided. • Provide Department finances and relevant Associated Government regional 5-year projections for 25 years of population, households, and jobs for affected project and service area regions, counties, and cities for the period of construction and a 25-year period of operations. • Provide numerical/quantified values of comparisons.	Social and economic impacts are outside the scope of CEQA unless they result in physical impacts. Nonetheless, the EIR does include discussion of these effects in Chapter 17, Socioeconomics. As discussed in Chapter 17, employment changes resulting from construction and operations of the project are not expected to result in significant changes in population and housing in the Delta region and would therefore not result in changes to land use. Refer to the table in Chapter 17 titled Population by County and Area, 2010–2060 for a summary of population and growth trends between 2010 and 2060 based on data from the California Department of Finance. The discussion of projected growth in the project and service areas is in Chapter 31, Growth Inducement. That discussion includes population growth projections that could result from stabilized water deliveries through 2060. The project would restore historic water supply reliability and would not change water right quantities. That discussion also provides cross-references to supporting information in Chapter 17.
733-127	The DEIR claims that materials transport would utilize road and rail and would not have the potential to divide existing communities. DWR should provide numerical/quantified values of construction duration for each alternative, number of round trips through each community, and those for distribution of RTM if prolonged beyond the physical construction period. Disposal of spoils and RTM is described in detail in Chapter 3, Description of the Proposed Project and Alternatives. DWR must:	Chapter 3, Description of the Proposed Project and Alternatives, includes a qualitative and quantitative comparison of key features of the alternatives (see the table titled Summary of Key Project Features by Alternative) and quantifies the overall temporary and permanent acres affected by each alternative (see the table titled Temporary Construction and Permanent Acreage for Each Alternative). Please refer to Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR; this Common Response also addresses alternatives suggested by commenters,

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	• Provide definitions and estimated annual volumes of "Spoils" vs RTM for each alternative and their initial construction period and operational permanent dispositions. • Provide long term Electricity Grid Improvements for construction periods and then continuing operations for each alternative and the potential improved electrical services for DCP construction and for pumping operations.	including the repair of existing levees. Analysis of anticipated vehicle miles travelled for construction and daily trips for each alternative is included in Chapter 20, Transportation. Spoils and RTM are described in Chapter 3. Volumes of RTM generated and areas for permanent storage would vary depending on tunnel diameter and length and are provided in the summary tables of distinguishing physical characteristics for each alternative in Chapter 3. A description of the electrical facilities needed for construction is also included in Chapter 3. Discussion of potential disruptions to the electrical grid can be found in Chapter 21, Public Services and Utilities, and discussion of electrical energy use is included in Chapter 22, Energy.
733-128	According to the DEIR, the project alternatives would not induce substantial unplanned population growth either directly or indirectly, because the DCP does not propose to develop new homes or businesses and proposed roadways are provided to construct project facilities and access conveyance facilities (Ch. 14, p. 23). DWR should: • Provide a definition of growth inducement based on induced employments and facilities/materials provisions.	Analysis of growth inducement is included in Chapter 31, Growth Inducement. This chapter provides the CEQA Guidelines' definition of what needs to be analyzed related to growth inducement and summarizes the methodology for the impact analysis. Chapter 31 includes discussion of historical and anticipated population growth, anticipated job growth, and indirect growth inducement from the project. The analysis concludes that the influx of workers during project construction and operations would not induce substantial new housing development, as these workers could be readily accommodated by existing housing stock. The analysis in Chapter 14, Land Use, reflects the anticipated changes in population due to the project. A description of project features required for each alternative, including electrical facilities, access roads, fencing and lighting, RTM, land reclamation, and other construction support facilities, is provided in Chapter 3, Description of the Proposed Project and Alternatives. In addition, a description of project features required for each alternative, including electrical facilities, access roads, fencing and lighting, RTM, land

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		reclamation, and other construction support facilities, is provided in Chapter 3, Description of the Proposed Project and Alternatives. Analyses of these features are contained throughout the EIR (e.g., energy use during construction and operation is evaluated in Chapter 22; traffic generated during construction and operation is evaluated in Chapter 20). Furthermore, comparison tables related to each resource area evaluated between existing conditions and alternatives and across alternatives are included in multiple chapters (e.g., summary tables at the beginning of each chapters summarize similarities and differences between alternatives).
733-129	• [DWR should] Provide official State/Regional current projections of population, households, and jobs for 2025-2050 and provide comparisons of the same for a period of construction for each alternative and for initial (e.g., 2040-2065) operations periods.	Please refer to response to comments 733-125, 733-126, and 733-128 regarding the study area for land use and the study area and scope of analysis for growth inducing and socioeconomics. The information requested is not needed to identify potential growth-inducing effects or socioeconomic effects.
733-130	• [DWR should] Provide definitions and numerical/quantitative designations for a three-part designation (minimal, moderate and substantial unplanned growth.	Please refer to response to comments 733-125, 733-126, and 733-128 regarding the study area for land use and the study area and scope of analysis for growth inducing and socioeconomics. The information requested is not needed to identify potential growth-inducing effects or socioeconomic effects.
733-131	• As the DCP requires major construction efforts far exceeding the government's internal capacities, the DCP would support many businesses and commercial entities in the Delta area for many years (e.g., 20-30) and thereby support expansion of populations within the Delta and thereby is Growth Inducing. [DWR should] Provide projections of land uses for each current alternative and for those referenced elsewhere in these comments.	Please refer to response to comments 733-125, 733-126, and 733-128 regarding the study area for land use and the study area and scope of analysis for growth inducing and socioeconomics. The information requested is not needed to identify potential growth-inducing effects or socioeconomic effects.
733-132	• Given the services required for the construction and operations of the DCP, [DWR should] provide estimates of project-induced Power Grid system/facilities, Roads/Access, Fencing, and RTM remaining and stabilized for agricultural	Please refer to response to comments 733-127 and 733-128 regarding project description details and where those details are evaluated in the EIR, including the things identified by the comment.

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	uses.	
733-133	XIV. Recreation This section of the DEIR is narrowly focused on what people do when they recreate in the Delta. They adequately cover the geographical locations of marinas and parks, and using survey information estimate what people are doing and how long they are doing it. Their main analysis focuses on the impacts to these recreational activities from the construction, operation and maintenance of the DCP. This narrow focus ignores a key issue: how does this project improve water quality in the Delta? The DEIR quotes the Delta Reform Act of 2009, which calls for the coequal goals for the Delta of "providing a more reliable water supply for California and protecting, restoring, and enhancing the delta ecosystem." (Ch. 16, p. 33). Relative to recreation, protecting, restoring and enhancing the Delta ecosystem is paramount.	The study area and methods and rationale for the analysis are discussed in Chapter 16, Recreation. The criteria used for determining the significance of an effect on recreation resources are based on Appendix G of the CEQA Guidelines (Environmental Checklist). Effects on water-dependent or water-enhanced recreation opportunities are evaluated for the potential of the project to: (1) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and (2) whether the project includes recreational facilities or requires (or indirectly cause) the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Similarly, criteria used for determining the significance of an effects on water quality are based on the CEQA Guidelines Appendix G (Environmental Checklist). Effects would be considered significant if implementation of an alternative would result in a set of conditions, of which includes exceeding state or federal water quality objectives or criteria such that they result in adverse effects on beneficial uses such as recreation activities. Water Quality effects are provided in Chapter 9, Water Quality. The effects analysis in Chapter 9 determined the project would not cause increased exceedances of water quality objectives/criteria by frequency, magnitude, and geographic extent that would result in adverse effects on one or more beneficial uses.
733-134	One important step in protecting the Delta ecosystem is to ensure that adequate flows of fresh water flow through the Delta. The lack of adequate flows is apparent right now in harmful algal blooms that endanger children and pets and stagnant, weed-filled channels that provide habitat for non-native species. The Recreation section of the DEIR should be amended to address the impacts of inadequate flows and poor water quality on human recreation. The DEIR also needs to	Please refer to responses to comments 733-13 through 733-17 regarding the project objectives. As described in Chapter 2, Common Response 1, and Common Response 3, the objective of the project is not to improve water quality in the Delta. Addressing impacts of inadequate flow or poor water quality on human recreation, as claimed by the commenter, is beyond the scope of the evaluation contained in the EIR and beyond the requirements of CEQA for the evaluation of the Delta Conveyance Project.

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	address how the DCP will protect, restore and enhance the Delta ecosystem.	
733-135	The DEIR states "Desalination projects would most likely be pursued in the northern and southern coastal regions. The southern coastal regions would likely require larger and more desalination projects than the northern coastal region in order to replace the water yield that otherwise would have been received through the DCP. These projects would be sited near the coast." (Ch. 16, p. 22). The DEIR provides no evidence for this bold statement. The DEIR needs to be amended to explain the source of this statement and why DWR thinks it is true. Alternatively, this statement should be stricken from the DEIR as it is purely speculative with no scientific evidence to back it up.	Please see response to comment 733-55 regarding the substantial evidence supporting the actions described and evaluate in the No Project Alternative.
733-136	Furthermore, the DEIR states, "The 2019 biological opinions issued by the National Marine Fisheries Service (NMFS) and USFWS facilitate Delta habitat restoration." (Ch. 16, p. 34) DWR needs to explain which biological opinions it is referencing, and whether reasonably foreseeable changes to the biological opinions will affect the project. At least some of the biological opinions are the subject of ongoing litigation and may not apply to this project.	Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the biological opinions evaluated in the EIR and included in the existing baseline conditions as described and modeled using CalSim 3. DWR acknowledges and explains the current status of the litigation related to these biological opinions in Common Response 1.
733-137	XV. Socioeconomics The SWP is "user financed" and Metropolitan Water District (MWD) will pay for 65% of DCP costs, but Agricultural districts will receive 70% of the water. This violates the beneficiary pays principle in the case of well users and some MWD member agencies who do not receive SWP water. This is not fair to those MWD member agencies, especially in environmental justice communities like those in Los Angeles County.	The comment provides no citation for the claim that "Metropolitan Water District (MWD) will pay for 65% of DCP costs, but Agricultural districts will receive 70% of the water." Please refer to Chapter 3, Description of the Proposed Project and Alternatives regarding contract amendments and the Agreement in Principle (AIP) which described a conceptual approach to cost allocation if the Delta Conveyance Project is approved. As stated in Chapter 3, DWR and PWAs will consider Delta conveyance-related water supply contract amendments only after CEQA review is completed. As discussed in Chapter 17, Socioeconomics, ECON-7, potential impacts in SWP service area include increased reliability of water which can result in reduced costs

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		to water providers and users in these regions. As noted in Chapter 29, Environmental Justice, the State Water Project export service area includes substantial environmental justice populations, see Table titled, Minority Population in the State Water Project Export service Areas Served by Public Water Agencies Anticipated to Participate in the Delta Conveyance Project.
733-138	The mitigation stipulated for acquisition of privately held, active farm land that is providing tax money to the local community. Some of this land will remain with the project as it will be needed to provide necessary facilities and services in support of the DCP. However, other sections of the DEIR make reference to the possibility of returning unneeded land to farming, using it to provide habitat or other unspecified purposes. Recovery for loss of local taxes is provided for, but a timeline is not provided detailing how long mitigation will last. The DEIR must provide a full description of any mitigation measures it plans to pursue, including a projected timeline for that mitigation.	Please refer to Chapter 17, Socioeconomics, ECON-4, Changes in Local Government Fiscal Conditions in the Delta Region regarding any losses in property tax revenue as a result of the State's acquisition of private lands required to construct the project alternatives. As stated in Chapter 17, California law requires full mitigation of property tax or assessments, therefore will be no lost property tax revenue during construction of the Delta Conveyance Project.
733-139	"Construction activities associated with the launch, reception, and maintenance shafts for the tunnels under all alternatives would also bring undesirable noise and dust and equipment emissions along with changes in the visual environment that could, in limited locations, adversely affect the quality of experiences boaters, anglers, sightseeing public and wildlife viewing enthusiasts currently find in and around the Delta waterways. Increased traffic on roads can also hinder or slow access for recreationists to Delta destinations or periodic events. Construction is planned to take place for 10 hours a day, Monday through Friday, for most of the construction period."(Ch. 17, p.73). Construction of the tunnel will likely be more constant (24 hours/day, 365 days/year) than the DEIR anticipates, especially after the Tunnel Boring Machines are at least 25% into their segment length. TBMs, ventilation, RTM	A substantial portion of the comment quotes text from Chapter 17, Socioeconomics. The comment does not provide supporting evidence for the claim that "Construction of the tunnel will likely be more constant (24 hours/day, 365 days/year) than the Draft EIR anticipates, especially after the Tunnel Boring Machines are at least 25% into their segment length." Chapter 3, Description of Proposed Project and Alternatives clearly describes the construction assumptions associated with constructing the project features. While some overnight work is anticipated for certain portions of construction such as the concrete pour for the tremie slab, construction would generally take place Monday through Friday, sunrise to sunset (see Chapter 3, section titled, Common Features of Alternatives). In some instances, such as pile driving for construction of fish screens would be further limited to reduce noise impacts (see Chapter 3, section titled Cylindrical Tee Fish Screens). Furthermore, the EIR evaluates ground borne vibrations and noise that could be produced by the tunnel boring machine

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	muck transport, and passage through the shafts must be virtually continuous and any interruption becomes very expensive very quickly. DWR should revise the section under the assumption that construction of the tunnel would operate continuously. DWR should also provide a typical year-monthly-weekly-daily schedule for tunnel construction activity and revise the above consistent with real TBM operations and all of the other related activities (e.g., ventilation) and their noise levels.	in Chapter 24, Noise, Impact NOI-2, subheading titled Tunnel Boring Equipment. The impact analysis concludes impacts would be less than significant because of the depth of tunneling and distance to the nearest sensitive receptors. The comment assertion that construction activities would occur on an uninterrupted basis for days, weeks, months or years at a time is not supported by the description of the project.
733-140	XVI. Cultural Resources There are 31 identified built-environment historical resources within the AI-BE for all of the project alternatives. Each of the project activities listed in Section 19.3.1.1 has the potential to affect built environment historical resources through the construction off new features within the setting of built-environment resources, the alteration of existing features within the setting of built-environment resources, or the physical alteration of character-defining features within the boundaries of built-environment resources (Ch. 19, p. 37). All of the project alternatives have the potential to cause a significant impact on built-environment historical resources. Construction of DCP features may require physical alteration of 9 built-environment historical resources. Construction may also result in changes to the setting of 22 built-environment historical resources.	The majority of the information contained in this comment is information copied from the analysis in Impact CUL-1 in Chapter 19, Cultural Resources. In regard to quantifying and replacing resources, the Chapter 19 section titled Environmental Impacts clearly identifies the methods for analysis, impact mechanisms, thresholds for significant impacts, and impacts. The discussion under Impact CUL-1 clearly explains how each project activity would impact historical resources. How each individual historical resource is impacted by the project is identified in Appendix 19C, Impact Analysis of Project Alternatives on Built-Environment Historical Resources. Chapter 19, Cultural Resources, of the EIR identifies impacts on cultural resources and associated mitigation measures in the section titled Impacts and Mitigation Approaches. Although the analysis concludes that impacts would be significant and unavoidable, mitigation measures have been identified to avoid and reduce effects where feasible.
733-141	Both material alterations to the integrity of materials, design, or workmanship, as well as material alterations to the integrity of setting, feeling, or association would impact the historical resource by removing character-defining features of the resource or altering the resource's character, resulting in an impairment of the resource's ability to convey its significance. For these reasons this would have a significant impact.	Please see response to comment 733-140 regarding the analysis of cultural resources contained in Chapter 19 and the determination of significant and unavoidable.

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	Mitigation Measure CUL-1: Prepare and Implement a Built-Environment Treatment Plan in Consultation with Interested Parties may mitigate these effects, but cannot guarantee they would be entirely avoided. The scale of the Delta Conveyance Project and the constraints imposed by other environmental resources would make avoidance of all significant impacts unlikely. For these reasons, even with implementation of the following mitigation measure, this impact would be significant and unavoidable (Ch. 19, p. 44). How does DWR intend to quantify the invaluable? To replace irreplaceable sites?	
733-142	XVII. Energy The use of California power for pumping through the DCP makes it more difficult to achieve the State's electricity zero goals of 90% by 2035 and 95% by 2040 (Ch. 22, p. 22). The peak additional load during an estimated 13 years of construction of 200 to 500 GWh/yr (averaging about 100 to 200 GWh/yr) is about 0.2 to 0.5% of CA electricity load, equivalent to the annual electricity use of 20 to 40,000 homes) is huge. The DCP would connect to the California Aqueduct, California's largest energy user. Imported water continues to be incredibly energy-intensive. The Compensatory Mitigation Plan (Ch. 22, p. 22-30) is absurdly small for such a massive project, and includes the use of fuel.	The State doesn't have zero electricity goals – it has zero emission goals. Moreover, the goals cited in the comment letter are incorrect. Per SB 1020, DWR must procure 100% carbon free electricity by 2035. Chapter 23, Air Quality and Greenhouse Gases, in the table titled Changes in Expected Renewable Energy Purchases 2011-2045 (Alternative 5), shows how the Renewable Energy Procurement Plan (REPP) (listed as OP-3 in the California Department of Water Resources Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan, Update 2020) could be modified to accommodate all project alternatives and shows how additional renewable energy resources over what was programmed in the original REPP could be purchased between 2035 and 2045. The REPP is DWR's plan for incrementally reducing SWP greenhouse gas emissions by increasing the use of renewable energy (see Table 6, DWR Renewable Energy Procurement Plan, in Update 2020). Operations and maintenance and SWP pumping activities are therefore considered consistent with Update 2020, specifically regarding DWR's implementation of OP-3, and the Delta Conveyance Project would not negatively affect achievement of these goals. Refer to Chapter 23, Impact AQ-9, additional discussion. Chapter 22, Energy, provides quantifications of energy that would be needed to construct each of the Delta Conveyance Project alternatives. The table titled Estimated Total Temporary Annual and Total Electrical Use Estimates for Construction in Megawatt Hours provides an estimate of the annual

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		consumption of power per year for construction of all the project alternatives over the 14-year construction period. The information reported in this table was considered to support the CEQA conclusion that although the project would increase the use of electrical energy during construction, this increase was not considered wasteful, inefficient, or an unnecessary use of energy and would not conflict with any state or local plan goal, objective, or policy for renewable energy or energy efficiency. The CMP is not part of the project, but that quantification was done where it could be based on the level of details known about the CMP. As described in Chapter 4, additional CEQA may be required for the CMP.
733-143	The DEIR is inconsistent regarding the additional energy demand of the project, sometimes saying "15 GWh per year," while in other places saying "993 GWh/yr" (Ch. 22, p. 28). The DEIR needs to be revised to clarify the project's associated energy demand, and updated with SB 102- created clean energy targets of 90% by 2035 and 95% by 2040, advancing the state's trajectory to 100% clean energy by 2045 (Ch. 22, p. 22, ln. 32).	The numbers presented in Chapter 22, Energy, are not inconsistent. The reference to 15 GWh/year is related to the approach taken to evaluate energy. In other words, if a project could result in a demand of more than 15 GWh/year DWR must perform additional analysis, which are contained in Chapter 22. The language related to the 15GWh/year has been clarified in the Final EIR.
733-144	This statement is unsupported "Given that the project would incorporate design and operational efficiencies described above in Impact ENG-1 and energy would be supplied from existing SWP and CVP sources, it would not conflict with any state/local plan, goal, objective or policy for renewable energy or energy efficiency" (Ch. 22, p. 22, ln. 32). The EIR does not present a detailed plan or cost projections to show how and at what cost all "energy would be supplied from existing SWP and CVP sources." In the absence of a plan and cost analysis, we have to assume that some of the needed 200 to 500 GWh/yr for construction and 993 GWh/yr for ongoing operation will have to come from other renewable energy sources. The DEIR must be revised to provide clarification and evidence to support this point.	The section titled Potential for New Energy Resources in Chapter 22 provides a discussion on statewide energy loads, and indicates that Alternative 5, the alternative with the highest estimated net electrical use across all of the action alternatives, would represent less than 1% of the state's annual electricity load, based on a daily load of about 35,000 megawatts. The sources that will be available for the Delta Conveyance Project are the same sources that are currently serving existing SWP facilities, including DWR's own hydropower generating facilities and through renewable energy purchases like solar power. Additionally, operations would designed and managed to maximize efficient energy use. DWR currently schedules the SWP's need to serve load and to supply generation based on the CAISO's market timelines through an extensive computerized network. Such schedules attempt to minimize the market costs of operating the SWP while aligning with the State's goals to support

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		renewable energy, such as using operating flexibility (storage reservoirs) to enable solar to be dispatched by CAISO during solar peak hours as opposed to releasing SWP water and generating during that time, which could compete with solar. DWR would continue to operate under these conditions. DWR has contracts with CAISO, PG&E, and SCE for transmission interconnection and transmission service for SWP power resources and pumping loads, and the SWP load is served by obtaining energy from CAISO market participants. The CAISO is regulated by the Federal Energy Regulatory Commission, and the California Public Utilities Commission regulates investor-owned utilities that operate in the CAISO market.
733-145	Table 22-17 lists potential impacts to energy demand, but the DEIR does not include mitigation for losses of energy development.	Table 22-17 citied by the comment is now Table 22-18 in the Final EIR. This table summarizes potential cumulative projects that may affect energy and are considered in DWR's cumulative analyses. DWR does not need to include mitigation for projects listed in this table.
733-146	Table 22-0 provides a summary comparison of important impacts on energy by alternative. The CEQA findings are applied only after all mitigation is applied. The Table should also include in its consideration of impacts the energy needed to construct the alternatives and the energy required for operation.	Table 22-0 is a summary table of the impact determinations contained in Chapter 22. The impact determinations are based on the quantification of construction energy use or operation energy use. The determinations in this table account for construction and operation use as identified by the first Impact title "Impact ENG-1: Result in Substantial Significant Environmental Impacts Due to Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources during Project Construction or Operation."
733-147	All of the project alternatives would require the use of electricity during both construction and operation, and would initially consume gasoline and diesel fuels through operation of heavy-duty construction equipment and vehicles (Ch. 22, p. 1). The maximum consumption of electricity during construction is expected to occur during tunnel boring for all project alternatives. During construction, it is expected that Alternative 4a would require the most electricity (about 2,717 gigawatt hours [GWh]), and Alternative 4b would require the least electricity (1,103 GWh). Fuel consumption for on-road and off-	Please see response to comment 733-146 regarding the summary information provided at the beginning of Chapter 22. Much of this paragraph is a summary of content in the Draft EIR. The table titled Estimated Total Temporary Annual and Total Electrical Use Estimates for Construction in Megawatt Hours provides an estimate of the total annual consumption of power per year for construction of all the project alternatives over the 14-year construction period. Refer to Appendix 23B, Air Quality and GHG Analysis Activity Data, the estimated electricity consumption of individual sources included in the total. Specifically, see tables titled Construction Assumptions—Tunnel Boring Machine Electricity

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	road construction equipment is expected to be highest for Alternative 4a (about 50 million gallons of gasoline and diesel), and Alternative 2b would require the least amount of fuel (32 million gallons of gasoline and diesel). Missing from this section is: • No discussion regarding years and GWh/Yr for power – TBM, ventilation and RTM pumping and for materials production – concrete and rebar. • No discussion of operations energy use 25-50 years, head-losses, and pumping.	Consumption, Construction Assumptions—Batch Plant Electricity Consumption, and Construction Assumptions—Equipment Electricity Consumption. The energy use data shown in the tables in Chapter 22 represents the consumption of energy based on operation of the alternatives but does not provide a breakdown of consumption by each element of the alternatives, as suggested by the commenter. The method of estimating the energy consumption by alternative is summarized in Chapter 22, in the section titled Evaluation of Operations. As discussed, the energy operations were analyzed for each alternative using the CalSim 3 model and the LTGen and SWP post-processing power models in sequence. LTGen uses the appropriate operations at each CVP reservoir, pumping plant, and powerhouse from the CalSim 3 model to calculate energy use and generation at these facilities. Operations analysis was performed by the SWP Power (State Facilities) and LTGen (CVP facilities) power models have assumptions about head-losses and efficiencies as described in Section titled Evaluation of Operation in Chapter 22. Modeling assumptions related to the energy analysis are described in Appendix 5A, Section A Modeling Technical Appendix – Modeling Overview, Subsection A.10.1 SWPPower and Section A.10.2 LTGen.
733-148	This section (Ch. 22, p.3) describes the existing energy resources available within the study area and analyzes the potential effects to these energy resources from construction and operation of the project alternatives. It neglects the energy projected to be consumed by: • Tunnel boring machines (TBM) • Batch plants and segment fabricators • Shaft segments • Transport of tunnel segments – weight vs distances –	The content starting on page 3 as cited by the comment is the existing setting. This is the section of the chapter that explains the existing setting for energy. Thus it would not include the information regarding the project. Information regarding the analysis of the project can be found in Section titled Impacts and Mitigation Measures of Chapter 22. This section includes details and assumptions associated with the construction and operation of the project alternatives. Please see response to comment 733-147 regarding information that can be found in the EIR regarding use of TBM and construction and operation energy use, including construction

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	rail or rubber	equipment assumptions. The use of Batch Plants during construction is evaluated in the EIR and is included in the construction assumptions described in Chapter 23 and the supporting appendices.
733-149	Hydropower energy generation is a major project purpose for the SWP and CVP (Ch. 22, p.3). Hydropower energy has always been an important part of the benefits and financing of state, federal, and private water resources developments in California. Runoff from the Sierra Nevada and Cascade Mountains provided great potential for hydropower development, which has now been harnessed to pump water supplies into the SWP and CVP canals, the San Luis Reservoir, and water distribution systems. DWR should clarify: • Past tense – provided vs potential - runoff and releases during climate changes • Hydraulic uses – constant/24-7 vs Hydraulic and Variable Use-loads • Drought – kwh costs	Appendix 22B, Energy 2040 Analysis, provides a comparison of the No Project Alternative at 2040 to the project alternatives at 2040. Modeling for the No Project Alternative at 2040 and project alternatives at 2040 incorporates assumptions regarding changes to hydrology and sea level rise as a result of climate change. Information regarding how climate change was considered in the modeling is provided in Appendix 5A, Section A Modeling Technical Appendix. Common Response 9, Hydrologic Modeling and Approach, provides an overview of how future hydrologic conditions attributable to climate change were modeled and reported in the Draft EIR. For long-term planning studies it is sufficient to understand the general monthly change between existing conditions and project conditions to identify if there would be potential magnitudes of change or determine if energy would be inefficiently used or greatly increased. It's impossible to predict the hourly needs far into the future. The power modeling uses output from Calsim which accounts for different water years types including dry years (drought) and it shows volume. This is disclosed in Chapter 22 and Appendix 5A, Section A Modeling Technical Appendix. Evaluating the cost of energy is not a CEQA requirement.
733-150	Electrical energy needs for construction were evaluated based on the estimated annual energy required for each alternative (Ch. 22, p.16). The construction energy requirements were estimated from the facilities that would require electrical energy during construction for each alternative. The construction-related energy demand is considered temporary (i.e., would cease once construction is complete). Construction of the DCP water conveyance facility would require use of	The majority of this comment summarizes or repeats what is in the EIR. Chapter 22 provides a comparison of construction energy use by alternative. For example, see titled, Estimated Total Temporary Annual and Total Electrical Use Estimates for Construction in Megawatt Hours (including compensatory mitigation). Please see response to comment 733-147 for the type of construction assumptions evaluated within the EIR, including use of TBM. CEQA does not require analysis of upstream or lifecycle components (e.g., concrete fabrication, steel fabrication). See

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	electricity for…lighting, tunnel ventilation, tunnel boring, earth removal from the tunnels, and other construction machinery (Ch. 22, p.17). There is no comparison of alternatives and construction energy uses. DWR must provide further details of: • Concrete for segment fabrication • Steel fabrication for TBM and connections and for Concrete rebar • TBMs, ventilation, pumping, and segment transport Lifts 24/7/365 vs. Normal 6am-6pm construction	Common Response 15, Air Quality and Greenhouse Gases, regarding further information.
733-151	As explained in the air quality analysis, DWR has included Environmental Commitment EC-13: DWR Best Management Practices to Reduce GHG Emissions, which includes a commitment to using alternatives fuels such as solar power to power generators to the maximum extent feasible (Ch. 22, p. 17). DWR should provide the definition of "feasible" and "maximum extent feasible." DWR should provide further details on: • Solar vs Diesel Daylight vs 24/7 30/12 no holidays • Compare energy uses by alternatives • For materials formation/fabrication for tunneling: TBM power and duration and tunnel operations for total days x rate/day; ventilation lighting, and muck removal	EC-13 is a standard BMP from DWR's Climate Action Plan . DWR compared energy uses by alternatives in Chapter 22, Energy (see also Appendices 22A, SWP and CVP Energy Generation and Consumption by Facility and 22B, Energy 2040 Analysis). Please see responses to comments 733-147 regarding details of construction assumptions and construction energy use.
733-152	Solar generation at this site would be pursued and developed if found to be feasible (Table 22-6). DWR should: • Provide definition of feasible, practical, and/or viable and provide definition without any economic/fiscal parameters • Clarify 24/7 Loads – TBM, rail, elevators, ventilation muck pumping vs 6am-6pm	Table 22-6 as cited by the comment acknowledges additional considerations were made during project development to reduce the direct and indirect use of non-renewable fossil fuels and use of renewable fuels. Some items were carried forward and incorporated into the project as presented in EC-17: Pursue Solar Electric Power Options at Conveyance Facility Sites, some are still under consideration, and some options were dismissed. A list of these items and explanations of whether or not they are still under consideration are included in the summary in Table 22-6. For the purposes of the EIR, a conservative assumption of using power distributed by power agencies to identify the needed extensions of power equipment

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		to serve the construction sites was used to determine if solar generation could be pursued at a site. Feasibility would be determined during the design phase based on specific electrical equipment and equipment and vehicle recharging needs, as well as other considerations such as the availability of adequate space and potential costs. Please see responses to comments 733-147 regarding details of construction assumptions and construction energy use.
733-153	Indirect impacts on energy within the Delta may occur under the No Project Alternative as the result of changes in upstream hydrologic conditions, sea level rise, and continued seismic risk to infrastructure (Ch. 22, p. 24). In addition, immediate, and potentially long-term, changes in energy resources could occur under the No Project Alternative because of seismic events and the inundation of infrastructure within the Delta. DWR must provide Project alternatives for meaningful numeric/quantified comparisons for No Project – Reinforced Levees, including thickening bases and raising heights and inserting permeable barriers and structural caps.	As discussed in Common Response 3 levee maintenance and management are not considered an the reasonable range of feasible alternatives evaluated in the EIR because this activity would not meet the basic project objectives. As described in Chapter 7, Flood Protection, and Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, DWR and other entities currently maintain and manage Delta levees and would continue to do so regardless of the implementation of the Delta Conveyance Project. There are multiple quantitative comparisons throughout the EIR, including those related to the 2040 climate change conditions with the No Project Alternative and the proposed project.
733-154	Construction of desalination projects, groundwater management projects, water recycling projects, and water use efficiency projects to meet water suppliers' needs would result in the short-term consumption of energy from construction of the facilities and would vary depending on the nature and duration of construction (Ch. 22, p. 26). DWR should: • Provide for a "Water Purification Alternative" (say Alt. #11) for continuing and repetitive reuse of local and existing SWP supplies for local service. Provide for completion of such within the same time period as tunneling and commissioning. Provide numerical/quantified comparisons of all alternatives for the same elements.	Please see response to comments 733-13 through 733-20 regarding the project objectives and the reasonable range of feasible alternatives evaluated in the EIR. Water recycling/purification were eliminated as alternatives to the proposed project because they would not meet most of the basic project objectives presented in Chapter 2, Purpose and Project Objectives, and as presented in Appendix 3A, Identification of Water Conveyance Alternatives. Generally, these alternatives would not meet two or more climate change/sea level rise, seismic and water supply resiliency, or operational flexibility objectives. Although not incorporated into the project alternatives, these water infrastructure and management approaches are currently being pursued through the State Water Supply Resiliency Portfolio and are complementary to the proposed project.
733-155	The No Project Alternative in combination with other cumulative projects is not expected to cumulatively affect	The comment is a copy of the paragraph contained in section titled Cumulative Analysis, subsection titled Cumulative Impacts of the No Project

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	energy resources or result in wasteful, inefficient, or unnecessary use of energy (Ch.22, p.40). Ongoing and reasonably foreseeable future projects may affect regional energy use; however, projects associated with the No Project Alternative (water recycling, desalination, and groundwater extraction) would not create substantial demand that would cumulatively affect net energy resources or energy use for SWP and CVP south-of-Delta pumping. Therefore, this energy impact would not be cumulatively considerable.	Alternative. It does not identify a comment regarding the adequacy of the analysis contained in the EIR.
733-156	XVIII. Air Quality and Greenhouse Gasses The DEIR says DWR will make a future plan that "will identify the specific GHG reduction strategies that will be implemented to meet the net zero performance standard for the covered phase and quantify the expected reductions that will be achieved by each strategy" (Ch. 23, p. 23). This DEIR fails to specify the details or costs, which should be included in the DCP plan and cost. Moreover, it does not show how it will "meet the net zero performance standard." In Table 23-75, annual emissions from construction of the initial compensatory mitigation sites would exceed the analysis threshold of net zero emissions.	The comment assertion that Mitigation Measure AQ-9 lacks detail and does not describe how the net zero GHG performance standard will be achieved is not supported by the language in this mitigation measure. The quantity of required reductions needed to meet the net zero performance standard for the proposed project (or selected alternative) will be expressly defined in a GHG Reduction Plan (Plan). Mitigation Measure AQ-9 details the required content for the Plan, including identifying the total amount of required GHG reductions and the amount of reductions anticipated in each phase of the Plan (if developed and implemented over multiple phases). Quantification of individual actions that can feasibly achieve that performance standard is not required by CEQA and would be premature given that the selection of strategies and details necessary to accurately quantify reductions will be developed after project approval as part of the GHG Reduction Plan, which is permitted by CEQA Guidelines section 15126.4(a)(1)(B). The plan will ultimately identify the GHG reduction potential of each selected strategy. Annual reporting is required to ensure that the net-zero performance standard is achieved with full transparency and the project impacts are sufficiently mitigated to a less-than-significant level. The comment restates analysis and conclusions of Impact AQ-9 in Chapter 23, *Air Quality and Greenhouse Gases*, including that construction of the initial compensatory mitigation sites and the additional channel margin and

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		tidal habitat would exceed the analysis threshold of net zero. Mitigation Measure AQ-9 requires DWR to mitigate emissions generated by construction of the project, inclusive of the compensatory mitigation plan, to net zero. Thus, the compensatory mitigation plan is subject to Mitigation Measure AQ-9 and all emissions generated by construction activities must be reduced to net zero. Mitigation Measure AQ-9 requires DWR to calculate the amount of GHG emissions anticipated during each phase of the Plan. Construction emissions for all components of the compensatory mitigation plan will therefore be fully quantified and mitigated according to the requirements of Mitigation Measure AQ-9. Please see Common Response 7, Implementation Considerations, regarding project costs, project funding, and financial feasibility of the proposed project. As noted in Common Response 7, financial analysis of the project, including mitigation costs as noted in the comment, is not a CEQA requirement. See also Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion on the adequacy of mitigation measures and comments that request document recirculation. This Common Response describes the CEQA requirements for recirculation, none of which the EIR meets.
733-157	According to the DEIR, additional channel margin and tidal habitat may be created within the North Delta Arc as part of the Compensatory Mitigation Plan that could increase construction emissions, although the specific design criteria required to support emissions quantification are not yet developed. This would have a significant impact. However, it goes on to say that implementation of Mitigation Measure AQ-9 would mitigate emissions from construction to net zero through the development and implementation of a GHG mitigation program. This measure ensures emissions from construction of the compensation mitigation restoration sites	Please see response to comment 733-156 regarding the air quality analysis related to the CMP and mitigation measures for GHG, including the cost.

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	would not result in a significant GHG impact. Therefore, DWR concludes the project alternatives combined with compensatory mitigation would not change the overall impact conclusion of "less than significant with mitigation." Again, the DEIR fails to specify the details or costs of "a GHG mitigation program," which should be included in the project plan and cost. Thus it does not show how it will "meet the net zero performance standard." The DEIR must be revised to identify the details of the GHG mitigation program, and substantiate its claims that it will meet a net zero performance standard.	
733-158	XIX. Hazards, Hazardous Materials, and Wildfire Under all project alternatives, there is the potential to encounter hazardous materials through the handling of reusable tunnel material (RTM), excavation and tunneling near oil and natural gas production facilities, and while tunneling near gas fields (Ch. 25, p. 1). Chapter 25 is inadequate and incomplete with regard to all tunnel and shaft construction activities and all aspects of oil and gas fields and facilities. DWR must provide thorough description, assessment, and mitigation for RTM hazards as they differ markedly from the more direct impacts of tunneling and shaft excavation for wells and pipelines.	The analysis in the EIR does not support the assertion that Chapter 25, Hazards, Hazardous Materials, and Wildfire, does not adequately identify, analyze, and provide mitigation for potential impacts that could result from tunnel and shaft construction near oil and gas fields. Please see Chapter 25, the section titled Hazards from Oil and Gas Production and Processing, for a description of oil and gas extraction fields present throughout the study area. This section of Chapter 25 relies on the discussion in Chapter 27, Mineral Resources, in the section titled Natural Gas Resources, which is supported by information extracted from publications by the California Department of Conservation (DOC); California Geological Survey (CGS); the DOC CalGEM (California Geology Energy Management Division); U.S. Geological Survey (USGS); and the general plans for counties that have land within the study area that could be affected by the project alternatives. This includes CalGEM WellSTAR database search results for location and categories of oil and natural gas wells in the study area. Please see Chapter 25, Impact HAZ-2, for an analysis of the potential impacts from excavating near oil and gas facilities, which determined that the impact would be less than significant with implementation of Mitigation Measure HAZ-2, which requires the preparation of a Phase I Environmental Site Assessment and development of a remediation plan

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		prior to construction. An assessment of potential effects associated with the transport and use of RTM is provided in Impact HAZ-1, which found that the impact would be less than significant. Impact HAZ-2 analyzed whether the handling and storage of RTM would expose workers to potential human health hazards, which found that with implementation of Mitigation Measure HAZ-2 the impact would be less than significant with mitigation.
733-159	Active oil and gas extraction fields are present throughout the study area (Ch. 25, p. 6). Petroleum production in the study area mainly consists of natural gas extraction, though minor quantities of crude oil and condensate are also produced. The locations of active wells can be determined with relative ease; however, the locations of abandoned or plugged wells may be unknown due to inadequate or missing data or poor record keeping (Ch. 25, p.7). DWR should be conducting additional analysis and surveys to figure out where unknown wells are in the project area and give further explanation of EDR.	Please see the section titled Impacts of the Project Alternatives Related to Hazards and Hazardous Materials in Chapter 25 for a description of identification efforts undertaken to support the EIR which include research of historical mapping and utilizing geophysical methods to identify unrecorded wells and well casings. The location of most abandoned and inactive wells is known, as shown in the figure titled Oil and Gas Processing Facilities in Chapter 25. However, not all well locations are known. Therefore, the identification efforts described in Chapter 25 will be required to locate previously unidentified wells. Furthermore, examination of historical aerial photos of the project site is required as part of the Phase I Environmental Site Assessment that will be conducted prior to construction as required by Mitigation Measure HAZ-2. Because identification of all gas and oil facilities within the project footprint is a priority, additional identification efforts will be conducted during the design phase and before construction of the project, as described in Chapter 3. This will include efforts to locate all previously unknown wells, including use of airborne methods to conduct magnetic surveys followed by surface geophysical surveys. See the Impacts of the Project Alternatives Related to Hazards and Hazardous Materials section in Chapter 25 for a description of identification efforts which include research of historical mapping and utilizing geophysical methods to identify well casings. The pre-construction identification efforts described in the Impacts of the Project Alternatives Related to Hazards and Hazardous Materials section would ensure tunnel shaft excavation does not intersect with pipelines, wells, or other oil and gas facilities.

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733-160	The DEIR states: "Other oil and gas exploration and production activities that can release hazardous materials into the environment, where they may be encountered during excavation or construction, include drilling, production,…to refineries and processing facilities. Oil and natural gas pipelines are also present throughout the study area and several pipelines are aligned west to east across the study area's southern half (Figure 25-1). A discussion of oil and natural gas resources in the study area is found in Chapter 27, Mineral 27 Resources." DWR needs to provide further information on the significance data, and plans for mitigation.	Please see responses to comments 733-158 and 733-159 regarding identification and mitigation related to oil and gas wells.
733-161	Regarding Figure 25-2. Oil and Gas Wells, DWR should provide alternative alignments along with oil/gas fields and well maps from CalGEM Div. Dept. of Conservation.	Please see response to comment 733-158 regarding the information used to prepare the hazards analysis, including information from CalGEM. As cited on the sources of Figure 25-1, CalGEM information was one of the many sources used to create the figure. The pre-construction identification efforts described in the Impacts of the Project Alternatives Related to Hazards and Hazardous Materials section would ensure tunnel shaft excavation does not intersect with pipelines, wells, or other oil and gas facilities. Please see Common Response 3, Alternatives Development and Description, regarding the screening and development of the reasonable range of feasible alternatives evaluated in the EIR.
733-162	Oil and Natural Gas Wells and Processing Facilities Mapped locations of oil and natural gas wells and processing facilities within the construction footprints (Figures 25-1 and 25-2) were overlaid to assess the relative risk of disturbing a well or encountering petroleum products or processing chemicals in soil or groundwater, respectively. The numbers of oil and natural gas wells within the study area were obtained from publicly available data on the California Energy Commission's California Natural Gas Pipeline and Station ARC/GIS website. DWR must provide an explanation for the use of secondary compilations referred to and compare those used with the	Please see response to comment 733-158 regarding the data sources used; comparisons between data sources is not required by CEQA and is not needed to provide a good faith effort at disclosing the type and magnitude of potentially significant environmental impacts associated with hazards and hazardous materials. All information was used to inform the impact analysis related to the location of oil and natural gas wells. Furthermore, as described in responses to comments 733-158 and 733-159, field studies are required and will further document the location of oil and gas wells.

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	primary data sources (Dpt. Conservation CalGEM, Well Finder) or historic (1922-1980) aerial photos. DWR must also provide primary sources rather than those derived sources and provide historic aerial photos of alternative alignments.	
733-163	In Section "25.3.2 Thresholds of Significance," there is no mention made of gas wells or pipelines and related surface facilities. (Ch. 25, p.27). There is no mention of gas wells and depth of tunneling and chances of encountering known/unknown well casings, gasses, and fluids. DWR must provide details of any historic wells within 100ft of the tunnel alignments or tunnel shafts. Assume that all gas wells included gathering gas lines from well heads to field processing facilities and coordinate identification of prospective gas gather lines with wells and tunneling shafts. DWR must also provide similar discussions for gas fields and more than 10 wells within 5000 ft of the proposed tunnel alignments.	The Thresholds of Significance section in Chapter 25 provides general guidelines to determine potential impacts of the project. The analysis in the EIR does not support the assertion that gas production facilities are not mentioned. Gas and oil facilities, including pipelines and wells are discussed in Chapter 25, in the section titled Hazards from Oil and Gas Production and Processing and the section titled Impacts of the Project Alternatives Related to Hazards and Hazardous Materials. The figure titled Oil and Gas Wells in this same chapter shows wells and their status (e.g., active, abandoned) within the study area.
733-164	The DEIR states that "Hazards associated with oil and natural gas production include emissions of BTEX compounds as well as n-hexane and other volatile organic compounds. Abandoned and plugged oil and natural gas wells may be present in areas where excavation is planned. Improperly sealed natural gas wells have the potential to act as natural gas conduits from deep reservoirs where flammable gasses may pose hazards to excavation or tunneling activities….Two active natural gas wells have been identified in the project footprint. The first is located near King Island just outside the footprint of the eastern tunnel alignment. The second active gas well is located within the footprint of the central tunnel alignment on Staten Island. Pre-excavation surveys would identify, confirm, and pinpoint exact locations of oil and gas wells to ensure tunnel excavation does not intersect with pipelines [wells]. As a result, tunnel activities are not expected to intersect with any natural	This comment contains a summary or quote from the EIR and is not a comment on the adequacy of EIR or on a significant environmental impact.

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	gas wells [or pipelines].” (Ch. 25, p. 38)	
733-165	DWR must: • Provide clarifications for methane vs other typical natural gas associated gasses, including H2S and PAH and nm-VOCs. Natural gas = odorless field methane/CH4 which is included in VOCs, but not amongst PAH/BTEX/n-hexane. • Provide a full range of toxic and combustible gasses from the gas fields and production systems within the Delta. • Provide detailed review of all gas fields and wells within 5000 ft of any DCP facility and provide all appropriate information regarding potential encounters during the DCP. • Provide clarifications for pipelines/wells and shafts and tunnels.	Regardless of the type, all gas, including natural gas, is considered potentially toxic, combustible, and dangerous. There is no need to parse out specific types to assess potential impacts more than Chapter 25 already has in the Hazards from Oil and Gas Production and Processing section. As described in Chapter 25 under the Hazards from Oil and Gas Production and Processing section, gas monitoring equipment is regulated by the Cal/OSHA Mining and Tunneling Unit and would be compliant for specific tunnel conditions. Mitigation measures are considered mandatory and are worded as such. The project is required to comply with all safety measures as mandated by Cal/OSHA. Safety features and designs will be determined by the contractor and will comply with all relevant safety regulations. Please see response to comments 733-158 through 733-163 regarding the evaluation of the location of oil and gas wells and the mitigation measures required prior to construction and tunnel boring.
733-166	Additionally, tunnel boring machines would be at >100 ft depth but could encounter known and unknown well casings and well casings at depth but not pipelines. Excavation of DCP shafts would have a higher likelihood of encountering pipelines and well heads (surface/production casings). Wells are not pipelines, and wells do have two-four casings near the surface, <50ft depth, which could be encountered from the surface to tunnel depths. Few if any pipelines would be expected at tunnel depths (>100ft bgl), therefore impacts would only pertain to shafts construction.	Please see response to comments 733-158 through 733-163 regarding the evaluation of the location of oil and gas wells and the mitigation measures required prior to construction and tunnel boring. Please also refer to response to comment 733-165 regarding gas monitoring equipment.
733-167	“All alignment tunnels (Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, 4c, and 5) would cross several natural gas pipelines. Some of the facilities under all project alternatives would be excavated within an area of natural gas fields [above]. The natural gas pipelines are generally located near the surface, with depths of less than 10 feet below the surface and pipe diameters less than 24 inches. The top of the tunnel excavation nearest the	Please see response to comments 733-158 through 733-163 regarding the evaluation of the location of oil and gas wells and the mitigation measures required prior to construction and tunnel boring.

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	natural gas lines would be approximately 115 to 120 feet below the surface. Pre-excavation surveys would identify pipeline locations to ensure tunnel excavation does not intersect with pipelines. In addition, tunnel shafts and tunnel facilities would be significantly deeper." (Ch. 25, p. 38). Shafts start at the surface and this statement is correct only for tunnels and upper 25% portions of shafts. DWR should revise the DEIR to: • Provide clarification regarding all surface facilities and their construction, compared to the lower half of the Shaft, e.g., upper 20ft vs lower 100+ft off shaft. • Provide similar clarification for wells/casings and tunnels and shafts. • Provide two types of gas monitors (one for buoyant methane and one for heavier gasses (C4-C6+)) on every shield and during shaft construction and operations.	
733-168	During the design phase of the project, DWR plans to conduct additional desktop surveys of documented wells and include research of historical topographic mapping that may document the presence of wells that were not previously identified in the California Geologic Energy Management Division (CalGEM) oil and natural gas database (Ch. 25, p. 39). The locations of identified wells within the tunnel alignment would then be used to determine methods to abandon, relocate, or avoid the wells (Delta Conveyance Design and Construction Authority 2022a:104; 2022b:66). References made in this section to "Design Phase" and future design documentation/revisions clearly indicate that the DCP DEIR is premature and thereby totally inadequate and incomplete. DWR must provide for a future supplemental/subsequent DEIR and retrieve the current documents as premature and recirculate a complete and adequate, design based, DCP DEIR at a later date. Additionally,	Because identification of all gas and oil facilities within the project footprint is a priority, additional identification efforts will be conducted during the design phase and before construction of the project, as described in Chapter 3. This will include efforts to locate all previously unknown wells, including use of airborne methods to conduct magnetic surveys followed by surface geophysical surveys. See the Impacts of the Project Alternatives Related to Hazards and Hazardous Materials section in Chapter 25 for a description of identification efforts which include research of historical mapping and utilizing geophysical methods to identify well casings. The required pre-construction identification efforts described in the Impacts of the Project Alternatives Related to Hazards and Hazardous Materials section would ensure tunnel shaft excavation does not intersect with pipelines, wells, or other oil and gas facilities. The analysis in the EIR does not support the assertion that a supplemental/subsequent EIR is required. Rather, CEQA allows for the evaluation of impacts at the level the project is designed to. Furthermore, please refer to Common Response 1 regarding

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	in a future DEIR such document "surveys" and reviews cannot identify unrecorded wells and must be augmented with reviews of historic aerial photographs for all tunnel alternative routes. DWR must provide for detailed acquisition and review of historic aerial photos for DCP alternative areas/corridors.	the criteria for recirculation under CEQA, which the Draft EIR does not meet. Additionally, the CEQA standard for preparation of an EIR and its evaluation of environmental effects need not be exhaustive, rather the sufficiency of the EIR is to be reviewed in the light of what is reasonably feasible and that which demonstrates a good faith effort at disclosure. Regarding the scope of the EIR analysis, please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues. The EIR is not premature and inadequate and as described in Common Response 3, the CEQA Guidelines explain that what is "reasonably feasible" to describe a project inevitably varies from project to project in light of factors such as the magnitude of a proposed project (CEQA Guidelines § 15204(a)). For complex projects covering large geographic areas, such as the Delta Conveyance Project, what is "reasonably feasible" is different than what is reasonable for smaller projects with relatively simple analysis. Again, as explained in the CEQA Guidelines, the degree of specificity required in an EIR depends on the type of project being analyzed (CEQA Guidelines § 15146). The Delta Conveyance Project has been described and analyzed within the EIR to a reasonable degree of specificity given the size and scale of the project.
733-169	In addition, during the design phase, a comprehensive exploration program would be conducted using the suitable geophysical methods to identify and/or confirm the location of well casings along the alignment, including wells that have not been previously identified (Ch. 25, p.39). Exploration with magnetometer "surveys" and reviews may not identify unrecorded wells especially if casings have been "pulled." This usually occurs in the the upper 100ft of casings and must be augmented with reviews of historic aerial photographs for all tunnel alternative routes. DWR should provide for acquisition and review of historic aerial photos of all alternative alignments in order to provide direct evidence of well location along all alternative alignments and at shaft sites. Moreover, as	Please see response to comment 733-168 regarding the adequacy of the project description and the EIR, as well as the impact analysis contained in Chapter 25.

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	described above, the reference to "design phase" indicates that this DEIR is premature, inadequate, and incomplete.	
733-170	The DEIR states, "These measures to identify and avoid oil and natural gas wells that would potentially pose risks to DCP personnel or facilities would reduce the potential impact of encountering hazardous constituents from abandoned or previously unidentified oil and gas wells." (Ch. 25, p. 39) "These Measures" are not formally mitigation for clearly significant impacts if realized but relate to the DCP's PRE-Design phase, which has been repeatedly referenced as being in a "Pre-Design" phase of project development. The "Design Phase" must include all relevant maps, drawing, and documents for all wells, locations established with historic aerial photos, and confirming field surveys and magnetometer locations of any well, pipeline, or even tank bottom/foundations. DWR should provide additional TBM facilities for direct metallic and gas sensors and monitoring in all shafts, tunnel ventilation air, muck pipelines, discharges, containment, and TBM tunnel faces.	Please see response to comment 733-165 regarding analyses of gasses and safety measures that will be taken. Mitigation measures are considered mandatory and are worded as such. The project is required to comply with all safety measures as mandated by Cal/OSHA. Safety features and designs will be determined by the contractor and will comply with all relevant safety regulations. Please see responses to comments 733-158 and 733-159 regarding identification and mitigation related to oil and gas wells.
733-171	Tunnel boring operations for the DCP in areas with a potential for flammable gasses would be required to include redundant safety features and practices, andTBMs are required to be equipped with gas monitoring equipment that automatically shuts down the TBM if gas is detected (Ch. 25, p.39). Based on southern California experiences, all TBMs must be equipped with dense gas (BTEX/PAH + H2S) monitors near their bottom and lighter than air gasses (i.e., CH4 methane) near the top of the TBM. DWR should provide realistic protection at and near the face (e.g., shelter/escape pods) and at regular intervals along the tunnels. DWR should also provide for Shutdowns/Shelter-In-Place and Evacuation – containment cells and increased ventilations.	Please see response to comment 733-165 regarding analyses of gasses and safety measures that will be taken.

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733-172	The DEIR includes desktop surveys, research of historical mapping and potentially airborne surveys and site-specific surveys to identify and avoid abandoned oil and gas wells. (Ch. 25, p.42). We recommend DWR supplement its review with historic aerial photos (1920s-1960s) that may be available and are far more reliable than maps. This chapter's numerous references to the project design phase and future research and documentation indicate that the DEIR is premature and inadequate.	Please see response to comments 733-159 and 733-168 regarding the adequacy of the project description and the EIR, as well as the impact analysis contained in Chapter 25.
733-173	XX. Public Health There are concerns to public health impacted by the DCP construction or operations from legacy pesticides, vector-borne diseases, trace metals, and mercury/methylmercury. A "no project alternative" that includes improvement to levees and infrastructure would allow better flow to prevent stagnation and buildup. Legacy pesticides include primarily organochlorine pesticides, such as DDT and "Group A" pesticides, and hexachlorocyclohexane are already highly persistent in the environment, including in sediment and fish tissue. The presence of these chemicals already in existence indicates a need for improvements in the Delta, but the options need to be more than doing nothing at all or building a $40 billion conveyance system.	DWR has fully evaluated potentially significant environmental impacts to public health in Chapter 26, Public Health. Much of comments 733-173, 733-174, and 733-175 are a summary or a repeat of the information contained in that chapter (e.g., "*Legacy pesticides* include primarily organochlorine…" in Section titled Drinking Water subsection titled, Pesticides; or, "…the existing cumulative condition for mercury/methylmercury in the Delta is considered significant…" in Section titled Cumulative Impacts of the Project Alternatives). Summaries or text repeated from the EIR are not comments on the adequacy of the analysis or the adequacy of the EIR. Chapter 26 evaluates the potential of creating stagnant water conditions, as well as other potential public health issues during construction in Impacts PH-1, PH-2, and PH-3. Impacts associated with stagnant water and mosquitos requires mitigation measure PH-1a and PH-1b to reduce impacts to less than significant as described under Impact PH-1. Please see Common Response 3, Alternatives Development and Description, which includes a description of why levee maintenance or a levee alternative was not carried forward for analysis in the EIR and would not the basic objectives of the project. Please refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the role of DWR and levee management and maintenance in the Delta.

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		Common Response 4, No Project Alternative Description and Analysis, describes the CEQA requirements for describing and evaluating a No Project Alternative in an EIR and the types of projects that are included in the No Project Alternative and responds to comments that request selection or preference to the No Project Alternative.
733-174	All project alternatives' construction may cause temporary increases in stagnant water, resulting in increased vector-borne disease, which could have a "significant impact." All project alternatives construction (but not operations) may cause ground disturbance that could result in precipitation-related soil erosion and runoff to surface water bodies in the study area. Any existing trace metals, pesticides, other contaminants, or organic matter in the soil could incrementally increase concentrations in surface water. Although programs to prevent mosquitoes from breeding and multiplying are in place throughout the study area, the incremental contribution of implementation of aquatic habitat restoration as part of compensatory mitigation to the cumulative effect on public health could be cumulatively considerable and significant.	Please see response to comment 733-173 regarding text that is repeated from the EIR related to public health.
733-175	Despite regulatory programs, a key challenge surrounds the pool of mercury deposited in the sediments of the Delta, which cannot be readily or rapidly reduced despite efforts to reduce loads in Delta tributaries, and which serves as a source for continued methylation and bioaccumulation of methylmercury by Delta biota. Existing cumulative condition for mercury/methylmercury in the Delta is considered significant. When the effects of the project are considered in combination with the effects of projects listed in Table 26-9, the cumulative impacts on public health are potentially significant. The DEIR states that there would be little change in EMF, DOC, trace metals, mercury, and pesticides in the Delta under the No Project Alternative relative to existing conditions.	Please see response to comment 733-173 regarding text that is repeated from the EIR in the cumulative impact section related to public health.

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733-176	Sierra Club California has asked repeatedly not only for a "no project alternative," but one that includes improvements to existing levees and infrastructure. These improvements could improve the flow of freshwater, reducing buildup of heavy metals and pollutants and preventing stagnation, which thus prevents vector-borne disease.	Please see response to comment 733-173 regarding commenter preference for the No Project Alternative.
733-177	XXI. Mineral Resources The Mineral Resources chapter repeats much of the Oil and Gas Resources Chapter 25. DWR should rewrite this chapter and include a full, design-based DCP DEIR. The revised DEIR must provide a full survey and review of historic aerial photos 1920-1960s to confirm and pinpoint well locations and confirm locations with field-gas-magnetic surveys. The revised DEIR must also provide a Hazardous Wastes assessment for all such facilities within 500ft of a specifically located DCP facility.	The impact analysis of oil and gas production in Chapter 25, Hazards, Hazardous Materials, and Wildfire, focuses on human health, whereas the impact analysis of oil and gas production in Chapter 27, Mineral Resources, focuses on the loss of availability of this resource. Therefore, the discussion of oil and gas in each of these chapters is tailored to the needs of its impact analysis. There is no requirement under CEQA to revise these independent chapters. As described in Chapter 3 in the section titled Location of Buried Groundwater and Natural Gas Wells, a future field investigations program would be used to evaluate the suitability of various geophysical techniques to detect buried and abandoned wells. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of why it is appropriate to evaluate impacts at a certain level of design of a project. As described in Chapter 25 in the discussion of Impact HAZ-2, several measures are in place related to hazardous waste assessments. Mitigation Measure HAZ-2 would require that a Phase I environmental site assessment be conducted before construction. This assessment would identify and evaluate potential sites of concern within the construction footprint and require the development of a remediation plan before the start of construction and operations.
733-178	XXII. Paleontological Resources The DEIR states that the impacts of tunneling and ground improvement cannot be mitigated and would cause a	Chapter 8, Groundwater, (p.1) as cited by the comment does not identify that impacts of tunnel and ground improvement cannot be mitigated and would cause significant and unavoidable impacts for all project alternatives.

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	significant and unavoidable impact for all project alternatives (Ch. 8, p. 1). DWR must define "ground improvement," such as ponding RTM discharges and grouting. Additionally, impacts can be mitigated even where they cannot be directly surveyed and monitored by compensatory measures related to the same conditions and activities, as for many different biological impacts. DWR should provide for compensatory paleontological mitigation for 40+ miles of tunnels and shafts for potential impacts on fossil resources, with foot-by-foot sampling and analyses for micro- and larger biota along with detailed mineralogical and sedimentologic sampling and analysis.	Chapter 8 describes groundwater impacts and as clearly identified in table titled Comparison of Impacts of Project Operations on Groundwater by Alternative, impacts are identified as less than significant prior to implementation of Mitigation Measure GW-1. As described in Impact GEO-4 in Chapter 10, Geology and Seismicity, ground improvement measures may include various combinations of removal of peat soils, installation of vertical wick drains, preloading of soils to promote soil consolidation prior to construction, installation of seepage cutoff walls, and in situ soil treatments for improving foundation strength, such as deep mechanical mixing or jet grouting approaches. As described in Chapter 28, Paleontological Resources, in Impact PALEO-1, for the excavation of the tunnels, the boring process would generate RTM, and any macrofossils encountered by the TBM would be destroyed by the boring process. Surface disturbance of geologic units identified as highly sensitive or undetermined for paleontological resources would be monitored. The impact analysis and mitigation measures presented in Chapter 28 follow the Society of Vertebrate Paleontology's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, which provides standard guidelines that are widely followed (Society of Vertebrate Paleontology 2010:1-11). These guidelines reflect the accepted standard of care for paleontological resources. As part of the Monitoring and Mitigation Plan for Paleontological Resources described in Mitigation Measure PALEO-1a, sampling and data recovery procedures that are consistent with the SVP Standard Procedures (Society of Vertebrate Paleontology 2010) will be established. These procedures will include bulk matrix sampling, as deemed appropriate by the paleontological resource specialist. This sampling would screen for microvertebrates (e.g., small mammal, bird, reptile, amphibian, or fish

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		remains) and invertebrate paleoenvironmental indicators (e.g., foraminifers, small gastropods, and plant seeds). The additional excavation recommended in the comment would not serve as compensatory mitigation for paleontological resources. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, for a discussion of significant and unavoidable impacts and the use and incorporation of mitigation measures.
733-179	While tunneling is largely impossible to mitigate as there is little direct observation earth/rock exposed, some compensation can also be achieved by careful monitoring of shaft excavations generally to or below the tunnel levels. Additional monitoring and inspections of excavated shaft surfaces at and below the tunnel levels can compensate for total lack of monitoring for the tunnel boring impacts. Such monitoring of the deeper levels of excavation also mitigates impacts to archaeological resources. DWR must provide compensatory trial shaft excavations, which may also compensate for some of the expected significant impacts to all paleontological resources.	Please see response to comment 733-178 regarding mitigation for paleontological resources and tunneling.
733-180	In Table 28-0, the DEIR lists impacts to paleontological resources as a result of surface ground disturbance for all alternatives as less than significant (Ch. 28, p. 2). Generally the surface disturbance includes both excavation and filling/covering of near-recent deposits which contain fossils, including diatoms, ostracods, fish bones, and many other marine/estuarine animal remains. Although not as unique and important as lower Pleistocene fossils, any fossil remains must be considered important and recovered and documented to have fewer impacts overall. Burial does not directly adversely impact fossils, although burial can impact more recent Pleistocene and Holocene fossils.	Please see response to comments 733-178 regarding the evaluation of impacts of surface ground disturbance on paleontological resources and required mitigation measures.

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	The DEIR must be revised to include monitoring of impacts to paleontological resources, and mitigation for any resources affected.	
733-181	XXIII. Environmental Justice The DEIR claims that if the DCP is approved and completed, project operations are not expected to result in disproportionately adverse effects on minority and low-income communities in the environmental justice (EJ) study area. Rather, "Improving water supply and water quality reliability, seismic and climate change resiliency, and operational flexibility to protect aquatic conditions in the Delta would have no adverse effect, and would have potentially beneficial effects, on EJ communities within the DCP's footprint in the Delta" (Ch. 29, p. 1). DWR's stated purpose of the DCP is to enhance seismic resiliency and help reduce the impacts of climate change on the SWP. However, there is an immediate risk of Delta levees being breached and/or failing due to flooding and seismic activity. EJ communities cannot wait 20 years for resiliency against these impacts. Delta levees must be strengthened and restored now. The DCP is not the solution to climate change. Restoring and strengthening existing Delta levees and infrastructure, along with increasing freshwater flows in the Delta, will both mitigate damage from seismic activity and reduce impacts of saltwater intrusion.	In regard to strengthening Delta levees, as described in Chapter 2, Purpose and Project Objectives, the fundamental purpose of the Delta Conveyance Project is to restore and protect the reliability of SWP deliveries. Although the Delta Conveyance Project is not a flood control project, it has been designed to ensure that intake structures on the Sacramento River and modified flood control levees have been designed to maintain the existing levels of flood protection. Please refer to the Chapter 7, Flood Protection, section Regional Planning Efforts Related to Delta Flood Management, for a discussion of levee programs that DWR manages that are critical to Delta flood risk management, including levee maintenance and improvements. Please see response to comment 733-21 through 733-22 regarding climate change and analyses contained in the EIR.
733-182	According to the DEIR, "Significant impacts were also identified for flood protection; groundwater; soils; fish and aquatic resources; terrestrial biological resources; hazards, hazardous materials, and wildfire; and paleontological resources, but they were not carried forward for detailed analysis in this environmental justice assessment because environmental commitments or mitigation measures would reduce impacts to a less-than-significant level, or, in the case of paleontological	In regard to the analysis of impacts on fishing, impacts associated with loss of fishing access are identified in Chapter 29, Environmental Justice, specifically under the section titled Fish and Aquatic Resources, and in Chapter 17, Socioeconomics, specifically under ECON-5. These sections explain that although construction of one or more intakes on the Sacramento River would obstruct access to fishing spots along the east riverbank at intake locations, there is ample access to the river for bank fishing from numerous other locations. Further, as stated in Chapter 16,

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	resources, unavoidable impacts would not affect environmental justice" (Ch. 29, p. 2). EJ communities in the Delta rely on fish populations in Delta waterways for sustenance. Per the "Your Delta, Your Voice" Environmental Justice Community Survey released by the Department of Water Resources in 2021, "Fishing in the Delta is a way of life. For 90% of the fishing locations respondents identified, they indicated that they eat fish from the Delta four or more times per week." The qualitative analysis provided in the DEIR does not provide an adequate assessment of quantitative impacts on fishing in the Delta and the communities that rely on them. The DEIR must be revised to include detailed assessment of the DCP's impacts on the identified resources and how they will affect Delta Communities.	Recreation, under Impact REC-1, no documentation was found that indicated these areas receive much use, if any; these areas represent a very small amount of shoreline compared to the many miles of shoreline accessible by adjoining roads; and anglers would still have abundant choices for accessing desired locations for shoreline fishing in and around the intake locations without these areas.
733-183	If the DCP was not approved and constructed, climate change and other natural processes and ongoing human activities would continue. The DEIR claims that how ongoing or changing conditions would affect environmental justice would depend on unknown individual, social, institutional, and political responses to change (Ch. 29, p. 2). The science is very clear that the lack of freshwater flows in combination with warmer temperatures increases the frequency and intensity of Harmful Algal Blooms (HABs). Algal blooms produce both air and water toxins that are dangerous to humans and wildlife. Additionally, more pollutants and HABs will increase contamination in fish populations that are a regular source of food for many Delta residents. Freshwater flows are critical in flushing out pollutants and preventing the proliferation of HABs. The DEIR must be revised to address the well-known implications of climate change, including HABs, and their potential impacts on Delta residents.	In regard to harmful algal blooms, Delta water quality is complex and potential changes depend on multiple factors, not only flow. This complexity is why DWR uses models to estimate and understand the potential changes to water quality in the Delta. As described in Chapter 9, Water Quality, specifically under Impact WQ-14, operation of the project under the project alternatives would not affect Delta water temperatures, nutrients, or water clarity at levels that would substantially affect, or affect at all, cyanobacteria harmful algal blooms (CHABs) frequency or magnitude in the Delta. Given that the analysis on CHABs results in a less-than-significant impact conclusion, the analysis in Chapter 12, Fish and Aquatic Resources, concluded that CHABs would not significantly affect fish species in the Delta or Sacramento River. For the same reason, an analysis of project impacts associated with CHABs was not carried forward for detailed analysis in the environmental justice impact assessment because a less-than-significant impact would not affect minority or low-income populations more than the general population and therefore is not considered an adverse effect on environmental justice populations.

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733-184	The DEIR states, “Effects could be adverse for minority or low-income individuals or businesses if projects limit water uses in a way that reduces employment opportunities, such as by reducing agricultural land in production or by increasing the cost of water in the Delta or the SWP service areas” (Ch. 29, p. 2). Freshwater flows mitigate against saltwater intrusion. Salinity intrusion impacts water supplies for communities and Delta farmers. Family farmers in the Delta will not be able to use the highly-salinated water to irrigate crops. Without advanced treatment, water quality in many Delta communities will decline. This will have a disproportionate and adverse impact on low-income communities as well as small, local farms in the Delta.	Regarding water quality, effects such as salinity were found to be less than significant environmental impacts (or less than significant after mitigation) in the detailed resource analysis in Chapter 9, Water Quality. Furthermore, Chapter 15, Agriculture Resources, Impact AG-3, evaluates potential indirect effects of agricultural production by altering the quality of irrigation water in portions of the study area. Impacts are determined to be less than significant with incorporation of Mitigation Measure AG-3. The effects of water supply reliability on environmental justice communities from elements such as salinity intrusion were considered in Chapter 29. Overall, increases in reliability of the total existing water portfolio is expected with implementation of the proposed project and its alternatives by sustaining and improving water supply reliability and supplementing or reducing groundwater use, which would increase water supply reliability in the export service areas that ultimately serve environmental justice communities. Please see Chapter 6, Water Supply, and Chapter 9, Water Quality, for details on the water supply and water quality reliability changes from the project alternatives.
733-185	This chapter only mentions “reusable tunnel material” (RTM) once: “The DCP footprint is the area in which temporary or permanent physical effects of the project may occur—intakes, tunnel shaft pad sites, reusable tunnel material treatment and storage areas, and Southern Complex or Bethany Complex facilities, along with parking areas, power and supervisory control and data acquisition lines, new or modified roads and railroad facilities, and compensatory mitigation areas” (Ch. 29, p. 5). This chapter should mention where the RTM is proposed to be housed during project construction in relation to EJ communities and what the EJ impacts will be. Additionally, this chapter should disclose what (if any) chemicals or treatments will be used on the RTM and what impacts these will have on air, water, and soil quality within environmental justice communities.	Spoils and RTM are described in Chapter 3 and are evaluated throughout the EIR, including those resources that are carried forward into the environmental justice analysis, as applicable and appropriate, in Chapter 29. For example, RTM is discussed in the Reusable Tunnel Material section of Chapter 25, Hazards, Hazardous Materials, and Wildfires, and Chapter 9, Water Quality. RTM removed from the tunnel would be placed in basins with impermeable linings where the RTM would be tested for hazardous materials and initially dried prior to storage or reuse. The water drained from the RTM would be collected and treated prior to reuse. If the RTM is determined to include hazardous or toxic constituents, the material will be hauled to licensed offsite disposal. An assessment of potential effects associated with the transport and use of RTM is provided in Impact HAZ-1, which found that the impact would be less than significant. Impact HAZ-2 analyzed whether the handling and storage of RTM would expose workers to potential human health hazards, which found that with implementation

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		of Mitigation Measure HAZ-2 the impact would be less than significant with mitigation. Volumes of RTM generated and areas for permanent storage would vary depending on tunnel diameter and length and are provided in the summary tables of distinguishing physical characteristics for each alternative in Chapter 3.
733-186	[Regarding the Environmental Justice Community Survey Report] the second most frequently added priority was "No Tunnels." Respondents expressed concerns about Delta water flow, saltwater intrusion, and an unfairness about moving water from the Delta to support farming or cities in Southern California. Respondents also thought that the tunnel would damage Delta roads, levees, water flow, Delta farms, and communities (Ch. 29, p. 26). This is significant and should be further highlighted.	The comment assertion that the EIR does not address concerns related to Delta water flow, saltwater intrusion, and agriculture is not supported by the analysis provided throughout the EIR. As described in Chapter 4, Framework for the Environmental Analysis, the EIR was developed to meet the requirements of CEQA but also included analyses beyond what is required of CEQA to more fully inform the public and decision-makers and support the NEPA process. The analysis in Chapter 29, Environmental Justice, considers environmental justice concerns and discloses potential effects of the Delta Conveyance Project on environmental justice communities. The analyses provided in the Chapters 7-32 evaluate the potentially significant physical environmental impacts of the proposed operations for all alternatives. As described in Chapter 12, Fish and Aquatic Resources, potentially significant impacts analyzed on fish would result in less-than-significant impacts with mitigation. As described in Chapter 13, Terrestrial Biological Resources, all potential impacts analyzed would result in less-than-significant impacts with mitigation. As described in Chapter 9, Water Quality, all potential impacts analyzed would result in less-than-significant impacts before the application of mitigation. As described in Chapter 16, Recreation, the potential impacts analyzed would result in less-than-significant impacts. As described in Chapter 19, Cultural Resources, the project could result in significant and unavoidable impacts on historic cultural and archaeological resources. In addition, described in Appendix 3G, Community Benefits Program Framework, the Community Benefits Program would include the Delta Community Fund and Economic Development and Integrated Benefits to address local effects that may

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		occur, beyond the mitigation requirements of CEQA.
733-187	The DEIR claims the project would provide broad benefits to minority communities and low-income communities within the SWP export service areas by sustaining and improving water supply reliability and supplementing or reducing groundwater use (Ch. 29, p. 30). The DEIR must provide evidence to support this statement. Almost three-quarters of respondents in the DWR Environmental Justice Survey stated they say "no benefits" in response to the proposed DCP. Regarding concerns of the increased cost of water- if the Delta tunnel is built, less fresh water will flow through the Delta, forcing Delta communities to pay more for clean water for their everyday needs. Farmworker communities in the south San Joaquin Valley will also see increased water rates due to rising costs of water regardless of whether their water agency invested in the tunnel or not due to the cost of water imports increasing. Low-income communities around Los Angeles and San Diego that receive water from the Metropolitan Water District (the primary funder of the DCP) will see their water rates increase. This will have a disproportionate impact on low-income and environmental justice communities both in the Delta and across the state. The DEIR must be revised to account for the community perspectives regarding the DCP and the real costs to residents of the Delta from construction of the DCP.	In regard to providing evidence related to benefits to minority communities, the EIR provides an impact analysis of the environmental resource raised by the comment. The Delta Conveyance Project EIR has been prepared in compliance with CEQA and fully evaluates the range of potential impacts that may result from construction and operation of the proposed project and its alternatives in Chapters 7-32 of the EIR. DWR's analysis meets the CEQA requirement to make a good-faith effort at full disclosure, and every effort has been made to base the analyses on up-to-date and accurate information. Please refer to Common Response 7, Implementation Considerations, regarding rate increases for water agency customers using project water. Whether or not water rates would increase, decrease, or stay the same for specific customers, such as low-income customers, relative to the No Project Alternative depends on a number of external factors, such as the costs and funding sources of other supplemental water sources. The EIR does not speculate what these might be. Furthermore, project costs and funding sources are not considered impacts under CEQA. Common Response 7, Implementation Considerations, includes a discussion addressing the preparation of a benefit-cost analysis of the project. The results of this analysis will be considered by DWR as part of its decision-making process for the project. In addition, please refer to the Efforts to Minimize Delta Community Effects technical memoranda in the Engineering Project Reports (Delta Conveyance Design and Construction Authority 2022a, 2022b) regarding the engineering and design modifications made to reduce Delta community effects. Additionally, as described in Appendix 3G, Community Benefits Program Framework, the Community Benefits Program would include the Delta Community Fund and Economic Development and Integrated Benefits to address local effects that may occur, beyond the mitigation requirements of CEQA.

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		Please refer to Chapter 35, Public Involvement, and Common Response 2, Public Outreach Activities, regarding the outreach activities conducted throughout the EIR process to provide public information and encourage public participation and comment.
733-188	XXIV. Climate Change The Climate Change analysis in the DEIR is woefully inadequate and misleading. The first project objective listed states that the tunnel will "help address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events" (Ch. 2, p. 2). To demonstrate that the proposed DCP will actually support and achieve these objectives, the DEIR must include sufficient analysis of the impacts of the DCP under future climate change scenarios to show that it will address consequences of climate change rather than contribute to cumulatively significant impacts.	Please refer to responses to comments 733-13 and 733-17 regarding the project objectives and the discretion CEQA affords lead agencies when identifying and describing project objectives, as well as the performance of the objectives. In addition to modeling results demonstrating the utility of Delta Conveyance Project under changed climate, as well as potential project effects, several sensitivity analyses were also provided to further evaluate the effects of Delta Conveyance Project under various climate change scenarios (refer to Common Response 6, Climate Resilience and Adaptation, for a discussion of the multiple climate changes analyses contained in the EIR).
733-189	Despite the stated objective, it is not clear how the proposed project will address the likely adverse impacts of climate change, which the DEIR states will contribute to warmer water temperatures, decrease delta smelt habitat, increase invasive aquatic plants, increase flood potential, increase salinity, and reduce water available for SWP deliveries (Ch. 30, p. 22-23). Salinity is currently managed by balancing ocean water with freshwater flows. Under future conditions, additional freshwater flows will be required to balance rising sea levels and salinity. The Sacramento River currently provides over 70% of the total inflow into the Delta (Ch. 5, p. 9). Contrary to its objectives, the DCP will likely contribute to additional salinity problems by increasing exports from the Sacramento River and reducing freshwater outflows into the Delta. The DEIR does provide any modeling after 2040 to support its statements regarding the project's future effects [Footnote 10: The DEIR included modeling using CalSim 3 at the year 2040, using (1) a	Proactively addressing climate change has been a priority for the state of California and Governor Newsom. The Delta Conveyance Project is one small component of the overall approach that spans multiple agencies and many plans and projects. Please refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project. DWR recognizes there is no one-size-fits-all approach, as does the California Water Resilience Portfolio. This is why the California Water Resilience Portfolio includes more than 100 separate detailed actions needed to ensure California's water systems work in the coming decades. The Delta Conveyance Project is one of many projects that will help meet California's water management needs but is not intended to be the only project that could meet water management needs. As identified in Chapter 1, Introduction, and Common Response 6, Climate Resilience and Adaptation, Governor Newsom's Executive Order N-10-19 aims to develop a comprehensive strategy to build a climate-resilient water system.

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	Central Tendency climate scenario with 1.8 feet of sea level rise, (2) a Central Tendency climate scenario with .5 foot of sea level rise, and (3) a Median climate scenario with 1.8 feet of sea level rise. (Appendix 30A, page 1)].	Newsom's strategy document, "California's Water Supply Strategy, Adapting to a Hotter, Drier Future," identifies the modernization of water conveyance through the Delta to capture and move water when it is available as an opportunity for increasing resilience. The EO criteria and priorities are intended to guide the development of the portfolio of options to improve water resilience in California as a whole and are not intended to be CEQA alternatives screening criteria for project EIRs. As described in Common Response 6, Appendix 5A, and Appendix 6A, the EIR presents modeled effects on SWP water supplies under future climate change scenarios, which demonstrate the performance of the Delta Conveyance Project, as well as potential effects of the project (e.g. potential changes in salinity). Information demonstrating the performance of Delta Conveyance Project under various climate change scenarios are presented in the EIR (e.g., see Common Response 6 and Appendix 30A).
733-190	A second objective of the DCP is to "protect the ability of the SWP . . . to deliver water when hydrologic conditions result in the availability of sufficient amounts of water" (Ch. 2, p. 2). No modeling is provided to demonstrate potential hydrologic conditions during the period beyond 2040, and the 2070 analysis makes unfounded assumptions and conclusory statements without providing any modeling or evidence to support its findings. A project which states that its primary goal is to protect its water deliveries must demonstrate that sufficient water will be available at the time when it plans to divert it. In this case, that time period is after 2040.	DWR has modeled climate change scenarios within the EIR. Chapter 30, Climate Change, evaluates observed trends and projected future conditions of climate change and the need for the project, as well as how climate change could influence the project's ability to fulfill its intended purpose. Although not required to do so by CEQA, DWR evaluated climate change impacts in several locations in the EIR using multiple climate change scenarios and timeframes for informational purposes. The EIR includes an entire chapter, Chapter 30, Climate Change, that focuses on how the project could help address impacts from observed and projected climate conditions on water deliveries and how climate change, including sea level rise, could influence the ability of the project to fulfill its intended purpose. Furthermore, analyses of climate change in the EIR are not limited to the year 2040. Analyses that are based on hydrological modeling mainly focus on 2040 conditions. However, the climate change and sea level rise assumptions used to model 2040 conditions cover a broader period than the year 2040, and as such do not limit evaluations narrowly to 2040. In addition, Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, summarizes results under additional

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		2040 climate scenarios to understand anticipated changes in variables relevant to project operations under a broader range of climate scenarios. The project alternatives are evaluated using a projection of future climate that includes changes in temperature, precipitation and hydrology, and sea level rise. This sensitivity analysis validates the climate change analysis contained in the EIR and demonstrates that no additional analyses are necessary. The analysis documented in Appendix 4A, Consideration of 2070 Conditions, is not required by CEQA and consists of multiple caveated assumptions related to climate change conditions, water resource management conditions, and regulatory conditions that might occur in 2070. As such, Appendix 4A contains some quantitative evaluations, such as those related to climate change, and quantitative modeling references (e.g., 2072 related to flooding). However, some information (e.g., the section titled Potential Future Water Management) is a qualitative description of projected conditions for each environmental resource given the descriptions of the climate change conditions and regulatory conditions. The qualitative analysis presented in Appendix 4A was prepared by experts who relied on various CalSim 3 studies conducted for the Delta Conveyance Project under a range of projected climate change futures and other water supply planning efforts.DWR has exceeded CEQA requirements by evaluating climate change and project impacts in multiple locations in the document using different climate change and sea level rise scenarios. Please refer to Common Response 6, Climate Resilience and Adaptation, for a description of the climate change and sea level rise analyses in the EIR and Common Response 9, Hydrologic Modeling and Approach, for modeled assumptions related to climate change.
733-191	By definition, the DCP includes the aging SWP infrastructure as essential to the operation and function of the project. The impacts and costs of replacing, fixing or failure of this aging infrastructure over the lifetime of the tunnel export project	Please refer to responses to comment 733-187 regarding consideration of environmental justice communities in the export service areas. Additionally, maintenance costs for existing SWP facilities is beyond the scope of CEQA for the Delta Conveyance Project.

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	have not been disclosed. Further with climate change and associated increased dryness and heat, it is likely that revenues for the DCP and other required repairs to the existing more-than-50 year old project of canals and dams necessary to operate the tunnel will likely fail. The resulting rate increases and/or lack of revenue will have significant impacts on low income communities and rural communities both from where the water is taken, and to the locations where this paper water is exported. These impacts need to be disclosed.	
733-192	Construction of the DCP will take more than a decade to complete, and the project will not become operational until after 2040, at the earliest estimates The DEIR makes statements in this section and throughout the DEIR that acknowledge the significant impacts of climate change on the Delta through sea level rise and changing hydrologic conditions (Ch. 33, p. 22). "Projected changes in precipitation are less consistent across climate models and characterized by greater uncertainty compared to projected changes in temperature. Although changes in annual precipitation are projected to be small in many regions throughout California, extreme heavy precipitation events and dry spells are projected to increase significantly throughout the state" (California Governor's Office of Planning and Research et al. 2018a:22, 26). It is surprising then that the DEIR includes no modeling of sea level rise or hydrologic changes under a range of potential climate change scenarios during the time the project would be operational.	Chapter 30, Climate Change, presents the latest climate change science and discusses the impacts of the project alternatives and climate change, and considers the comment's characterization of climate change (i.e., higher air temperatures, varying hydrology and precipitation). Appendix 5A, Modeling Technical Appendix, describes how climate change was modeled for the project. Appendix 30A, CalSim 3 Results Sensitivity to 2040 Climate Change and Sea Level Projections, summarizes results under additional 2040 climate scenarios to understand anticipated changes in variables relevant to project operations under a broader range of climate scenarios. The project alternatives are evaluated using a projection of future climate that includes changes in temperature, precipitation and hydrology, and sea level rise. As discussed in Appendix 5A, Section F, Sea Level Rise and Delta Water Quality Modeling, the north Delta intakes would not be vulnerable to salinity intrusion due to sea level rise and would operate under assumed modeled conditions.
733-193	The DEIR cannot demonstrate that the proposed project will achieve the stated objectives, including addressing the impacts of climate change, if it has not even attempted to model how climate change will affect hydrologic conditions during the DCP's operational timeframe nor how the proposed project and	Please refer to responses to comments 733-13 through 733-17 regarding the project objectives and the discretion CEQA affords lead agencies when identifying and describing project objectives, as well as the performance of the objectives. In addition, see comment 733-192 for a discussion on the climate change scenarios considered. The modeling approach used for evaluating the Delta Conveyance Project is based on best available tools

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	operations will affect freshwater flows under those scenarios. The fact is there is much modeling uncertainty. There are a wide range of modeling predictions especially with regard to climate change and there is a need to design a system for this range of outcomes. The DEIR focuses on one selected model, but given climate change, DWR does not know if the 'right' model was selected. Choosing a model of the average or median results, likely only has a 10% chance that it is correct. The model selection and design need to be more robust to handle the different outcomes: dryness, rain, temperature extremes and snow. DWR is like a general going to war with an old playbook that is out of date and is not "resilient."	and substantial evidence, and demonstrates the effects of Delta Conveyance Project and its ability to meet project objectives.
733-194	Local projects are central to the argument for a No Project alternative, but the discussion of those projects seems deliberately and severely abridged and vague compared to the project alternatives. The DEIR argues that local water projects are "not related to restoring and protecting SWP supplies" as justification for their absence from analysis as alternatives to the proposed project (Ch. 30, p. 23). Local water supply and resiliency should be central to an alternatives analysis. Given the uncertainty around future precipitation and climate impacts, building outdated water infrastructure and supply management are not a prudent adaptation to climate change, and must be compared against a robust alternative that prioritizes local and regional water supplies, including projects to support water conservation, efficiency, stormwater capture, and water recycling.	Please see Common Response 3, Alternatives Development and Description, which includes a description of demand management actions, including the local projects, are infeasible in achieving the majority of the basic objectives of the project. Please refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, regarding the role of regional water suppliers to implement regional water-use conservation and efficiency strategies. Common Response 4, No Project Alternative Description and Analysis, describes the CEQA requirements for describing and evaluating a No Project Alternative in an EIR and the types of projects that are included in the No Project Alternative, including those projects mentioned by the comment (e.g., water conservation, water-use efficiency, alternative water supplies, recycled water, desalination). See also Chapter 4, Framework for the Environmental Analysis, which explains that the No Project Alternative analyses focus on identifying the additional water-supply related actions public water agencies may opt to follow if the Delta Conveyance Project does not occur. The Delta Conveyance Project would be a part of the State Water Project, and Common Response 19, Demand Management, Water Conservation, and Other Actions by

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		Participating Water Agencies, describes existing efforts and future actions to be undertaken by State Water Project users to ensure California's water resources are being used efficiently and sustainably.
733-195	California has experienced warming during the twentieth century, and annual maximum temperatures are projected to increase by 5.6°F (3.1°C) for RCP 4.5 and 8.8°F (4.9°C) for RCP 8.5 throughout the state by 2100 (California Governor's Office of Planning and Research et al. 2018a:23). The projections suggest that storage must be underground or much of the water stored will be lost to evaporation. Sites Reservoir, an above-ground storage project, would not be an effective sister project to the DCP. Snowpack in the Nevada and California mountains that serves as a natural reservoir and key source of surface and groundwater may decline substantially under future climate conditions, in part because warmer temperatures may lead to a smaller percentage of precipitation falling as snow and a greater percentage of precipitation falling as rain (California Governor's Office of Planning and Research et al. 2018a:26–28) (Ch. 33, p.11). This research is not up to date; as of spring 2022, we know there will no longer be snowpack in the Sierra Nevada by 2046.	Please refer to responses to comments 733-21, 733-22, and 733-188 through 733-194 regarding the assumptions used for the analysis associated with climate change and the climate scenarios considered.
733-196	Increased water temperatures affect aquatic organisms and habitats biologically, physically, and chemically. These impacts may be seen in changing maximum dissolved oxygen saturation levels (i.e., the highest amount of oxygen water can dissolve) and primary productivity, nutrient and chemical cycling, and organism metabolism, growth, and reproductive and mortality rates (IEP MAST 2015:32). Reduced dissolved oxygen levels may have adverse effects on fish spawning in the form of	Please refer to Appendix 12C, Fish and Aquatic Resources 2040 Analysis for an analysis of whether any of the impact conclusions document in Chapter 12, Fish and Aquatic Resources would change when considered under future conditions, including changes resulting from climate change. Note that modeling results under both the 2020 and 2040 scenarios indicate Delta Conveyance Project operations would result in minimal, if any, changes in Delta water temperatures. As previously stated, the EIR does not meet the CEQA requirements for recirculation and therefore does not

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	reduced egg survival and may reduce the habitat zone (i.e., reduce abundance) of fish that are sensitive to higher temperatures, such as delta smelt (Hypomesus transpacificus). Salmonid egg survival and population productivity also may be affected by higher temperature levels, which can limit sufficient oxygen levels, increase disease prevalence, and interfere with synchrony of natural systems like migration (National Oceanic and Atmospheric Administration 2018:4, 25, 31, 37) (Ch. 33, p.16) Removing cold water from the delta region via diversions through the DCP will only exacerbate these problems. Habitat restoration is not a substitute for higher volumes of cold water. The DEIR has not provided sufficient analysis to demonstrate the DCP will meet the stated objectives, and must be revised and recirculated for public comment.	need to be recirculated.
733-197	XXV. Tribal Cultural Resources The DEIR explicitly acknowledges that all participating Tribes are proponents of the No Tunnel Alternative. Despite the impacts to Tribal Cultural Resources, and recognized opposition, the DEIR does not attempt to minimize impacts, only offer mitigation. The Tribes get no vote in this project, yet they are expected to tolerate changes consequential to character-defining attributes of the Delta. Where avoidance or protection in place is not feasible, there could be resource-specific treatment in consultation with affiliated Tribes. Even with these measures, the DCP has the potential to materially impair affiliated Tribes' physical, spiritual, and ceremonial experience of character- defining features of the Delta Tribal and Cultural Landscape (TCL) and therefore result in a significant and unavoidable impact on a Tribal cultural resource.	Although the analysis in Chapter 32, Tribal Cultural Resources, concludes that impacts on Tribal cultural resources would be significant and unavoidable, mitigation measures have been identified to avoid or minimize impacts where feasible. For example, DWR would implement Mitigation Measure TCR-1a to incorporate preconstruction surveys and feasible avoidance or protection measures in the design, construction, operations, and maintenance activities to avoid or protect Tribal cultural resources. Where avoidance or protection is not feasible, DWR would implement other mitigation measures (Mitigation Measures TCR-1b, TCR-1c, and TCR-1d), as applicable. This would include mitigation by way of resource-specific treatment in consultation with affiliated Tribes and the incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. DWR is committed to continuing consultation and engagement with Tribes as part of the project's

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		mitigation measures and DWR will continue to consult with affiliated Tribes regarding the implementation of the mitigation measures to minimize and mitigate the project's potentially significant impacts. Please refer to Common Response 16, Tribal Cultural Resources, regarding the adequacy of the mitigation measures included in Chapter 32 and the consideration of Tribal perspectives in DWR's decision on whether to approve the project.
733-198	Consulting Tribes maintain the perspective of the interconnected nature of TCL features. Tribes explained that the full cultural value of an individual site could not be fully understood without an understanding of the plant communities, waterways, and trail systems that are the reasons that the archaeological site exists and would have been used in tandem with the village of the site. The significance of a certain river cannot be isolated from the vistas, ceremonies, other spiritual points on the river's landscape, or from reliance on such views and vistas for navigating through the broad Delta landscape (Ch. 19, p. 23). The interconnected nature of the region, both spiritually to the Tribes and biologically to wildlife, means that DWR needs to evaluate the region as a whole as well as specific sites, especially considering the fluid movement of water and air, and how the region will change over time.	DWR recognizes, and the EIR acknowledges, the Delta's importance to Tribes. Chapter 32, Tribal Cultural Resources, section titled Sacramento–San Joaquin Delta Tribal Cultural Landscape, describes the Delta Tribal Cultural Landscape (Delta TCL), which was evaluated as a cultural (sometimes called ethnographic) landscape, which relies on the continued recognition of culturally important processes in addition to historical trends. DWR determined impacts on Tribal cultural resources based on whether the project would materially impair character-defining features by substantially limiting or eliminating an affiliated Tribe's ability to spiritually, physically, or ceremonially experience those features. Please see Chapter 32, section titled Thresholds of Significance. While this includes consideration of physical changes to the Delta TCL, DWR considered a broad range of ways that the project may limit or eliminate a Tribe's ability to experience character-defining features. Please see the Chapter 32 section titled Impact Mechanisms for Tribal Cultural Resources, which discusses ways that a Tribe's spiritual or ceremonial experience could be impaired even if the character-defining feature isn't destroyed or otherwise physically damaged. Chapter 32, Impact TCR-1 considers multiple variables (described as character-defining features) as part of the Delta Tribal Cultural Landscape, including those identified in the table titled Tribal Views on Delta TCL Character-Defining Features. For example, terrestrial and aquatic plant and animal species habitats are identified as part of both the Delta's ecosystem and character-defining features that represent heritage and cultural

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		significance to Tribes pertaining to sustenance, traditional knowledge, ceremony, spiritual practices, and stewardship. As such, the impact analysis in Chapter 32 considers the various individual resources identified by Tribes, including those raised by the comment, and the values these resources contribute to the Delta TCL. Additionally, Chapter 13, Terrestrial Biological Resources, evaluates potential impacts from construction, operations, and maintenance of the project on sensitive natural communities, plants, and wildlife. These natural communities may support plants and animals that are important to Tribes. As described in Chapter 13, where potential effects on sensitive natural communities, plants, and wildlife were identified, mitigation measures were provided to reduce such impacts to a less-than-significant level. Chapter 32, Impact TCR-2, recognizes that there may be resources in the study area that have not yet been identified, and that there remains a potential for significant unavoidable impacts on such resources. DWR is committed to continued consultation and incorporation of Tribal knowledge through close collaboration and engagement on the implementation of Mitigation Measure TCR-2 to ensure that any potential character-defining features of the Delta Tribal Cultural Landscape, including cultural and historical sites, or individual Tribal cultural resources are identified and addressed through mitigation. DWR provided information about the project to each of the consulting Tribes and invited each Tribe to provide DWR with information about resources of concern, including their location and significance, what impacts might occur from project activities, and ways that impacts could be avoided or mitigated. Any information consulting Tribes chose to share with DWR regarding traditional lifeways and cultural practices factored into DWR's finding that the Delta TCL meets the criteria for listing in the California Register of Historical Resources, and thus qualifies as a Tribal cultural resource under CEQA.

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733-199	During consultation, some Tribes expressed concerns about resources that could be affected by changes in water operations upstream from the Delta. DWR counters that "no construction would occur outside of the Delta counties, and the proposed project and alternatives would not change operational criteria associated with upstream reservoirs. Some indirect operational changes could occur because of the interconnectedness of the waterways, but modeling analysis has indicated that these changes would be negligible" (Ch. 19, p. 8). This explanation does not address potentially significant impacts to salmon or other fish that swim upstream implicit in the shared concerns. Impacts to one area can have far reaching effects throughout the 1100 square mile region. The DEIR must be revised to meaningfully address the concerns raised, and consider alternatives, including a No Tunnel Alternative, that would prioritize maintaining the identified TCL features, including avoiding impacts to resources caused by changes in water operations.	DWR recognizes that the Tribes perceive that project effects may extend beyond the study area due to the interconnectedness of waterways. As described in Chapter 32, Tribal Cultural Resources, in the section titled Study Area, no construction would occur outside of the Delta counties, and the proposed project and alternatives would not change operational criteria associated with upstream reservoirs. Some indirect operational changes could occur because of the interconnectedness of the waterways, but modeling analysis has indicated that these changes would be negligible (see Chapter 5, Surface Water). Because changes to reservoir storage and river flows would be minimal, they would not have the potential to affect resources upstream from the Delta and those areas are not included in the study area. Additionally, there would be no physical alterations and minimal variations in surface water flows south of the Delta in SWP and CVP service areas. Therefore, the study area does not include the potential for physical impacts in areas upstream of the Delta region or the south-of-Delta SWP and CVP service areas. Please refer to Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources and the consideration of Tribal perspectives in DWR's decision on whether to approve the project. DWR, as lead agency and decision maker, will carefully consider all the project alternatives, including the No Project Alternative, before making a decision on the project.
733-200	XXVI. Other CEQA-Required Analyses This chapter of the DEIR does not adequately compare the costs and benefits of the proposed DCP and alternatives as required by CEQA. It contains numerous glaring omissions, including that it does not quantify or estimate the associating costs of the DCP's construction or ongoing maintenance, despite admitting that it will be "substantial" (Ch. 33, p. 1).	Please see response to comments 733-181 through 733-187 regarding benefit-cost analysis, which is not a requirement of CEQA. As described in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, and Common Response 7, Implementation Considerations, if a statement of overriding considerations is required to be adopted for project approval, CEQA directs consideration of whether specific economic, legal, social, technological, or other benefits

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	DWR's latest estimate places the cost of the project around $16 billion. The DEIR must provide a cost benefit analysis to allow the public to compare the exorbitant financial, ecological, and public health costs of the DCP with the supposed water supply benefits to the SWP contractors.	including region-wide or statewide environmental benefits outweigh the unavoidable, adverse environmental effects. In addition, a cost-benefit analysis is part of DWR's overall planning process and will be completed as part of that process before moving forward with the project. Chapter 17, Socioeconomics, provides the analysis results of the socioeconomic effects of constructing and operating the project. The focus of the socioeconomic assessment was on the effects occurring primarily within the Delta study area.
733-201	Additionally, the DEIR has not included the commitment of water from the Sacramento River in the discussion of irretrievable commitment of resources (Ch. 33, p. 1-2). Each of the project "alternatives" propose to change the place of diversion for the SWP, and commit additional water to export south of the Delta. The DCP would commit significant financial resources on construction and maintenance of the tunnel to divert this water. The diversion of water from the Sacramento river, associated impacts to the watershed, including projected delta outflows, endangered species, and the water quality would constitute an irretrievable commitment of resources and must be included in this discussion.	The analysis contained in the EIR does not support the assertion by the commenter that impacts on water should be considered irreversible and irretrievable and thus considered in the analyses in Chapter 33, Other CEQA-Required Analyses. Please refer to the response to comments 733-21 through 733-37 regarding the evaluation of impacts on water supply and surface water, operations of the north Delta intakes, and how the project seeks a new point of diversion, but not an expansion of water right quantity. Chapter 33 considers those resources that cannot be restored or returned to their original condition (i.e., non-renewable resources). However, water as a renewable resource does not necessitate analysis in Chapter 33, but, as mentioned, potential impacts are analyzed throughout the EIR, as described in the response to comment comments 733-21 through 733-37. As identified in the Executive Summary in the section titled Chapter 6, Water Supply, the project alternatives do not include any actions that would modify water deliveries to non-SWP and non-CVP water rights holders, including in-Delta water rights holders. The project would be operated within the existing water rights and contracts of DWR for the operations of the SWP. As described in Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, beneficial uses of water are designated throughout the State of California, including numerous existing beneficial uses south of the Delta that receive water from the State Water Project, and ultimately require a reliable water supply. As discussed in Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the evaluation of water-

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		dependent resources, the EIR discloses potential changes in hydrology (i.e., freshwater flows) on the Sacramento River and Delta throughout the entire EIR and determines impacts would be less than significant or less than significant with mitigation. For example, Chapter 12, Fish and Aquatic Resources, evaluates the changes to Sacramento River and Delta flows on fish and aquatic resources under operating conditions of all alternatives and concludes impacts would be less than significant with mitigation incorporated (see Impacts AQUA-2, AQUA-3, and AQUA-4). Given the above, an irretrievable commitment of water would not occur.
733-202	The DEIR states that "the process for reaching an overall determination under CEQA . . . requires the balancing of different sets of environmental benefits and impacts against each other" (Ch. 33, p. 2). The DEIR does not provide an explanation or methodology for how it will weigh the benefits and impacts of the DCP, nor does the DEIR provide a quantitative or numerical comparison of alternatives as required by CEQA. Rather, the DEIR concludes that the Bethany Reservoir alignment will lessen both short and long-term impacts and is the environmentally superior alternative (Ch. 33, p. 5). The DEIR must provide a quantitative comparison of the alternatives and their relative degree of impact, with and without mitigation, to support its conclusions. The DEIR must provide a numerical or quantified comparison of impacts for all alternatives, and whether each of those impacts is short or long-term, to show how it reached its conclusion.	CEQA does not require a numerical and quantitative comparison of alternatives; however, there are multiple quantitative and numerical comparisons throughout the entire EIR depending on the resource evaluated. For example, Chapter 12, Fish and Aquatic Resources, has approximately 200 tables that provide quantitative comparisons of anticipated impacts by project alternative. The EIR includes many tables identifying differences and similarities between alternatives for the public and decision makers to understand the alternatives and the different impacts between them. For example, in the Executive Summary there are 27 tables comparing the alternatives. The table titled Summary of Key Project Features by Alternative summarizes the key features of each alternative; and the table titled Summary of Delta Conveyance Project Impacts and Mitigation Measures identifies the impact determination of each alternative organized by resource evaluated in the EIR. In addition, as described above, the EIR has multiple tables throughout each resource chapter documenting comparisons of the alternatives and potential changes or impacts on the physical (e.g., Chapter 9, Water Quality), biological (e.g., Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources), and socioeconomic (Chapter 17, Socioeconomics) analyses.
733-203	The DEIR must provide additional information to support its conclusions regarding water reliability and flexibility of the SWP under the proposed project. One of the stated goals of	Please see Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR that meet the basic project objectives as

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	the DCP is to improve reliability of supply to the export areas. The DEIR states that alternatives with one intake would not have the water supply reliability benefits expected of alternatives with two or three intakes (Ch. 33, p. 4). The DEIR must provide a method of numerical evaluations, with and without mitigation, to support the conclusion that water reliability will improve under these alternatives.. Additionally, the DEIR must provide ranked assessments and comparisons for In-Delta impacts compared to Service Area impacts. Additionally, the DEIR states that dual conveyance would provide operational flexibility that would reduce impacts on aquatic species (Ch. 33, p. 4). Dual conveyance will allow for increasing diversions of river flows to potentially harm aquatic species. The DEIR must provide information on the maximum physical capacity of SWP diversion with and without the DCP under future conditions and demonstrate that water is available in the Sacramento River under regulatory and administrative constraints in a variety of water years.	well as a description of the operations of the project and a description of the approach to the project description contained in Chapter 3, Description of Proposed Project Alternatives. CEQA does not require consideration of every variation of every alternative; CEQA requires an EIR to include a reasonable range of alternatives that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen one or more of the significant effects of the proposed project. Common Response 3 provides an explanation of the alternatives screening process and how project objectives are used to identify potential alternatives to the proposed project. In addition, please see Common Response 1, regarding the adequacy of the description of project objectives and the performance of the objectives. As described in that Common Response, lead agencies have discretion over identifying and defining the project objectives and do not have to prove the performance of the project objectives under CEQA. Chapter 5, Surface Water and Chapter 6, Water Supply provide information regarding the reservoir storage and water supply under each alternative in tabular and narrative form (e.g., see table titled Water Supply for Existing Conditions and the Project Alternatives (thousand acre-feet) in Chapter 6). The comment assertion that the EIR does not provide supporting evidence for the conclusion that Alternative 5 would be the environmentally superior alternative is not supported by the text discussion in Chapter 33, Other CEQA Required Analyses or the resource analyses provided in Chapters 5-32. As stated in Chapter 33, Alternative 5 would result in the fewest acres of land use incompatibilities (see Chapter 14, Land Use), substantially fewer acres of impacted wetlands (see Chapter 13, Terrestrial Biological Resources), and fewer impacts on cultural resources relative to alternatives on the central or eastern alignments (see Chapter 19, Cultural Resources). As discussed in Chapter 33, the main driver for Alternative 5's reduced impacts is the absence of the Southern Complex.
733-204	Moreover, the DEIR assumes that the no project alternative will result in (1) further decline of the Bay-Delta ecosystem, (2)	As described above in response to comment 733-55 the actions that are likely to occur under the No Project Alternative as cited by the comment

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	construction of desalination and other potentially harmful projects to compensate for the reduction in SWP exports, and (3) limited groundwater supply due to SGMA limitations (Ch. 33, p. 3). These assumptions are unsubstantiated and the DEIR has not provided adequate references or evidence in support of them. Alternatives are available that would address California's water supply issues by increasing conservation and efficiency to reduce demand, and utilizing water recycling and groundwater recharge to boost supplies. The DEIR must be revised to include an alternative that prioritizes ecological health of the Delta and includes local and regional projects that could provide water resiliency benefits without significant ecological consequences. This chapter has not satisfied the requirements of CEQA. The DEIR must be revised to include the additional analyses and recirculated for public comment.	(e.g., construction of desalination projects and implementation of SGMA) are supported by substantial evidence provided throughout the EIR including Appendix 3C and Chapter 8, Groundwater Resources. It is appropriate and adequate for DWR to consider these types of reasonably foreseeable actions under the No Project Alternative. Please see responses to 733-13 through 733-20 regarding a lead agency's discretion in developing the purpose and objectives for the project and the reasonable range of feasible alternatives considered in the development of the EIR.
733-206a	XXVII. Community Benefits Program Analysis The DEIR states that the goal of the Community Benefits program is to "go beyond traditional concepts of environmental mitigation to foster goodwill during long periods of construction" (Ch. 34, p. 1). It does not address the impacts of the DCP after construction. "Fostering goodwill" sounds as if the goal is to manipulate Delta communities to agree to a quid pro quo- they can receive the "benefits" laid out in this chapter in return for the many other sacrifices they will be forced to make by the State.	The comment misconstrues and mischaracterizes DWR's purpose and intent of the Community Benefits Program by referencing "quid pro quo". Chapter 34, Community Benefits Program Analysis, evaluates the potential impacts of implementing the types of projects identified in Appendix 3G, Community Benefits Program Framework. As mentioned in Chapter 34, the analysis is commensurate with the level of detail currently available about the potential projects and Community Benefits Program.
733-206b	Because the actions that could be funded or integrated into the DCP as part of this program have not yet been specifically identified, this analysis discloses potential impacts that could be anticipated based on available information but does not include CEQA significance	As described in Appendix 3G, the Community Benefits Program Framework identifies the goals, objectives, and potential components of the proposed Delta Conveyance Project Community Benefits Program. The Framework was informed by public input received through interested parties from within local Delta communities, interviews, workshops, and public

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	impact determinations. At this stage, it is unknown which specific activities would be approved, and their design, location, or scale are also unknown. The DEIR claims that as actions are funded or integrated with the construction of the DCP, they will undergo project-level CEQA review and any other required regulatory processes before they would be implemented (Ch. 34, p. 2). The program is entirely hypothetical at this stage and therefore difficult to measure impacts or comment on the adequacy of the proposed actions. Because each project would require its own CEQA process, further engagement by the public beyond this DEIR is required. The burden on the public continues.	comments. The Framework also details the steps DWR will undertake in development of the Community Benefits Program, including ensuring opportunities for meaningful community participation. For example, community input will be used to develop the criteria for potential actions to be financed and the development of performance measures, including schedules and milestones. While approval of the Community Benefits Program as described in the Framework would be included in CEQA approval, specifics regarding implementation of the program would continue to be developed and finalized, with community input, after that approval.
733-207	The DEIR claims investments in large infrastructure actions such as roadway improvements could help improve air quality by providing funding to pave dirt roads and reduce dust dispersion (Ch. 34, p.3) Realistically, these large infrastructure actions could also increase pollution by dispersing dust during construction, as well as pollutants in the construction materials.	The commenter misconstrues potential benefits of community benefits activities identified during the public outreach and engagement process for the development of the community benefits program framework with environmental impact analysis. Chapter 34, Community Benefits Program Analysis page 4 is summary information gathered from the public and documented in Appendix 3G, Community Benefits Framework. Comments on this section are not comments on the CEQA analysis but rather comments on the opinions of the community members. As described in Chapter 34, section 34.3, Impacts, potential impacts resulting from the types of activities outlined in the community benefits framework on air quality and GHGs, visual character and quality, soils, minerals, paleontological resources, aquatic and biological resources, traffic, public services and utilities, cultural resources, water quality, agricultural resources, noise, land use, and socioeconomics are acknowledged, as applicable. However, as stated in the introduction to Chapter 34, because the actions that could be funded or integrated into the project as part of the community benefits program have not been specifically identified, the analysis discloses potential impacts that could be anticipated based on

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		available information but does not include CEQA significance impact determinations. Furthermore, as stated in Chapter 34, as actions identified, they will undergo project-level CEQA review and any other required regulatory processes before they would be implemented.
733-208	The DEIR also claims that investing in roadway improvements and adding dedicated roadways for agricultural use, either through the Delta Community Fund or Economic Development and Integrated Benefits, could also reduce congestion and improve the flow of traffic into and out of the region, which could support recreation and the economic vitality of the Delta (Ch. 34, p. 3). Again, additional roadways would largely be a benefit to agriculture that will create air pollution and develop undeveloped lands.	Please refer to response to comment 733-207 regarding the portion of the comment that pertains to information obtained through public outreach and engagement. Please see Chapter 17, Socioeconomics and response to comments 733-137 through 733-139 regarding potential socioeconomic effects.
733-209	Maintaining and improving levees could increase flood protection and help increase the climate resiliency of the Delta by reducing risks to life and property during flood events (Ch. 34, p. 3).These improvements should not be beholden to the approval of a massive, environmentally destructive tunnel. These improvements are necessary and should be pursued independently from a decision to move forward with the DCP.	The comment suggestion that maintaining and improving levees are beholden to the approval of the Delta Conveyance Project are meritless. Nothing in Chapter 3, Description of the Proposed Project, Appendix 3G, Community Benefits Framework or Chapter 34, Community Benefits Program Analysis suggest that levee improvements would occur only with implementation of the Delta Conveyance Project. Rather, as described in Appendix 3G, Community Benefits Framework, levee improvements were put forward during the development of the community benefits framework as one of the many types of projects that could be selected for implementation in the future. Please refer to Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs regarding the Department of Water Resources' other activities in the Delta, including existing and continued levee management and maintenance actions in the Delta.
733-210	The DEIR suggests investments in community services could offer expanded and improved access to law enforcement, fire departments, and code enforcement. Expanding these services could reduce crime, illegal dumping, and other nuisances in the region that degrade recreational experiences, harm businesses	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the

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	and agriculture, and adversely affect the quality of life for residents (Ch. 34, p. 4) On page 12, it is also suggested that police may be needed to address homeless populations. There is plenty of evidence that investing in law enforcement does not help reduce crime, and worse yet, is detrimental to communities of color and homeless populations. This intention should have been included in the EJ survey. According to data collected over 60 years, from 1960 to 2018, spending more money on policing does not lower the crime rate and spending less on policing does not increase it. This element of the Community Benefits program must be thoroughly reconsidered.	community benefits program with community input and participation.
733-211	The Community Benefits Program also includes proposed investments in additional bus routes to provide residents with greater access to jobs and recreational amenities (Ch. 34, p. 4). The DEIR does not consider that additional bus routes could increase pollution if the buses are not electric. Additional bus routes may not necessarily increase bus ridership as research suggests that more access to cars decreases ridership.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-212	Addressing homelessness and providing sanitary facilities could help address hazards and threats to human health associated with waste generated by the unhoused population (Ch. 34, p. 4, 12). Homelessness is a complex issue. Sanitary facilities are an option, but providing housing for unhoused populations is the best way to end homelessness.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-213	Revitalization of rural main streets and restoration of culturally important places could help encourage tourism and business growth, which could strengthen local economies and communities. Investments in maintenance of schools and other public places could contribute to the improved health, safety, and general well-being of residents (Ch. 34, p. 4 and 17). Over a decade of construction on the Project, and	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.

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	the noise and air pollution that it comes with, may deter tourism and business growth.	
733-214	The DEIR suggests, "Actions that could protect or restore habitat, including land acquisitions and transfers in the Delta region, could provide opportunities to protect native and special-status wildlife species habitat and improve the Delta ecosystem. Investments in fish screens and similar efforts to reduce entrainment could contribute to improved survival rates for fish species. Conservation of habitat and conversion of agricultural land to habitat could also contribute to a net decrease in greenhouse gas emissions, which could improve air quality and have a potentially positive contribution to climate change" (Ch. 34, p.4). It does not provide any details regarding how land would be acquired and from whom, who would be responsible for the ongoing stewardship, and how the costs of the restoration and ongoing maintenance would be paid for.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-215	Conservation of agricultural land could help preserve the agricultural heritage of the region and enhance Delta open space, habitat areas, and visual quality (Ch. 34, p. 4). Conserving agricultural land sounds like a subsidy for agriculture, in a region where agriculture creates intense subsidence and pollution of air and water. Big Ag is a $2 billion industry in California, and further subsidizing them does not align with beneficiary pay principles. These [carbon capture and sequestration] impacts could be avoided and minimized by siting actions, where available and feasible, on lower-quality farmland (Ch. 34, p. 10, 15 and 18). Carbon capture and sequestration can cause very dangerous carbonic leaks, which can lead to unpredictable explosions when they build up in aquifers. A safer solution could be converting the "lower-	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.

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	quality farmland" to public lands or wildlife. Land can have a function beyond agriculture.	
733-216	The DEIR states that the program could "address housing code violations related to Sacramento County and Federal Emergency Management Agency issues" (Ch. 34, p. 13). Is DWR suggesting that DCP money would be funding evictions? This is a gross overreach, especially to be suggested in a post-pandemic era rife with poverty and homelessness. If DWR is suggesting that DCP funds would pay for housing assistance, that would be an improvement, but the chapter is unclear in its intentions.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-217	The DEIR states that shelter or homeless encampments could be sited to avoid affecting sensitive habitat and species and nearby properties or interfering with existing uses. Establishment of a shelter or fenced homeless encampment, depending on location, could have environmental effects related to ground disturbances, visual character and quality, traffic, and air quality (Ch. 34, p.13). We advise DWR to pursue more humane approaches to homeless solutions, rather than merely putting up a fence around homeless encampments, in partnership with homelessness and social service experts.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-218	Overall, the Community Benefits Program lacks a level of detail required for the public to understand the proposal and its potential impacts. While the DEIR acknowledges that further project-level review must be done, that will come at the cost of requiring the public to provide feedback on each project proposal, and likely will not provide further analysis of cumulative effects of the community benefits program as a whole.	Please refer to responses to comments 733-206 through 733-209 regarding the purpose and intent of the Community Benefits Program, the portion of the comment references information obtained through the public engagement process, the level of analysis for the community benefits program, and the future steps that will be taken to further develop the community benefits program with community input and participation.
733-219	Conclusion In summary, the DEIR is missing essential analyses and alternatives necessary for CEQA review. The DEIR must be	Please refer to response to comments 733-19 and 733-20 regarding the alternatives analysis. As previously noted in these responses to comments, the current EIR does not meet the CEQA requirements for recirculation,

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	revised and recirculated for public comment before any votes on construction by water contractors can take place. We look forward to reviewing a new DEIR that incorporates a No Tunnel Alternative and anticipate that these comments will be addressed in any future draft.	therefore does not need to be recirculated.
733-220	ATT 1: Report titled Sierra Club California's Smart Water Alternatives to the Bay Delta Conveyance Project, dated December 2022.	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. Please see responses to comments 733-13 through 733-20 regarding the purpose and objectives of the project as well as the reasonable range of feasible alternatives evaluated in the EIR.

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734-1	We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501(c)(3) non-profit corporation dedicated to promoting quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within the Siskiyou County area. We are responding to a request for public comment on the Draft Environmental Impact Report for the Delta Conveyance Project. Since the source waters that will be conveyed by this project include those from the Mt. Shasta watershed area in Siskiyou County, this project has significant importance to our organization's mission as well as our communities. Please note we submitted comments on the Notice of Preparation back in April of 2020.	This information describes the structure or organization of the comment letter, the background of the organization or individual commenter, clarification on the submittal of the comment letter, or general introductory text. It is not a comment on the contents of the Draft EIR. DWR has reviewed all comments and will consider all comments in its decision-making process. Please refer to Common Response 3, Alternatives Development and Description, regarding Delta Conveyance Project proposed operations, which do not include modifications to State Water Project reservoir operations upstream of the project, such as those in Siskiyou County or the Mt. Shasta watershed area. DWR would not increase storage withdrawal for exports, except flood releases, even though the proposed Delta Conveyance Project may provide additional diversion capacity. The project would not include modifications to Central Valley Project reservoir operations upstream of the project because Reclamation is not a participant in the project. Please see Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the study area for resources analyzed in Chapters 5–32 and areas upstream of the project. DWR considered all NOP comments received during the NOP comment period and documented the consideration in Appendix 1A, July 2020 Delta Conveyance Project Scoping Summary Report and December 2020 Addendum A.
734-2	1). Narrowly limited Purpose of the proposed project: The project purpose is given as (e.g., Executive Summary, page ES-7, lines 2-6): "DWR's fundamental purpose in proposing the project is to develop new diversion and conveyance facilities in the Delta that are necessary to restore and protect the reliability of SWP water deliveries, and potentially CVP water deliveries south of the Delta, consistent with the state's Water	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Project Requirements, regarding the project's purpose and objectives, including DWR's continuing commitment to operate the State Water Project as modified to include the Delta Conveyance Project in compliance with all state and federal water quality and environmental laws.

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	Resilience Portfolio (California Natural Resources Agency et al. 2020:7) in a cost- effective manner." The assumption that past/current levels of SWP water deliveries will be possible into the future is not substantiated, given that current water exports from the Bay Delta are currently unsustainable (as indicated by the current unhealthy state of the Bay Delta ecosystems) and projections of the effects of Global Warming on California forecast less precipitation and more evaporation. Furthermore, the assumption of future water deliveries being possible at current levels precludes study of alternatives that would implement approaches to reduce water exports and increase Delta outflow, the latter being essential for sustaining healthy Delta and Sacramento River ecosystems and communities. Such approaches include watershed protection, water conservation, recycling and desalination infrastructure, and demand reduction measures. We note that the purpose of the project is written such that continuation of the SWP water delivery system is the only alternative actually addressed in the DEIR (although there are several variations on the same theme). We note a recent court decision where an FEIR was ruled in violation of CEQA because the FEIR for the project based its analysis on an impermissibly narrow set of project objectives, such that approval of the project as proposed was a "foregone conclusion," rendering the alternatives analysis an "empty formality." (We Advocate Thorough Env't Review v. County. of Siskiyou (2022) 78 Cal. App. 5th 683). The FEIR for the Delta Conveyance Project assumes the SWP is the ONLY solution to the water crisis and	As described in Common Response 3, Alternatives Development and Description, and Common Response 9, Hydrologic Modeling and Approach, the project would divert water from the Sacramento River based on existing water rights, hydrologic conditions, and regulatory requirements. The analyses within the EIR do not predict future water deliveries, but rather use reasonable assumptions based on demand and supply as described in Appendix 5A, title, for existing baseline conditions and alternative conditions. In addition, the EIR provides multiple analyses of potential conditions under different climate change scenarios to characterize potential effects of the Delta Conveyanve Project operations farther into the future as described in Common Response 6, Climate Resilience and Adaptation, and Common Response 9. In addition, Common Response 6 discusses the climate resilience the Delta Conveyance Project affords related to water supply under future climate conditions. Common Response 1 discusses the adequacy of the objectives for the purposes of CEQA, the discretion CEQA affords lead agencies in defining the project purpose and objectives and the scope of the purpose and objectives statements for the purposes of CEQA, and consideration of other objectives such as Delta restoration. The project objectives are not artificially narrow. CEQA does not restrict an agency's discretion to identify and pursue a particular project designed to meet a particular set of objectives. As described in Chapter 1, Introduction, and more fully described in Chapter 2, Purpose and Project Objectives, the purpose of the project is to restore and protect the reliability of SWP water deliveries south of the Sacramento-San Joaquin Delta (Delta), consistent with the California Water Resilience Portfolio (California Natural Resources Agency et al. 2020), in a cost-effective manner. The objectives focus on the SWP's ability to respond to sea level rise and climate change, minimize disruption of SWP operations from earthquakes in and around the Delta, improve water supply reliability, and provide operational flexibility. The State of California, in the Water Resilience Portfolio, identifies a suite of

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	does not seriously consider alternatives for addressing the state water issues. Thus in the FEIR the purpose needs to be expanded to acknowledge the reality that continued export of water to the south is likely not sustainable and to incorporate additional alternative strategies for realistically managing the states waters.	complementary actions to ensure safe and resilient water supplies, flood protection, and healthy waterways for the state's communities, economy, and environment. We Advocate Through Environmental Review v. County of Siskiyou (2022) 78 Cal.App.5th 683, 692 is distinguishable. In that case, the lead agency "largely defined the project objectives as operating the project as proposed" and the objectives "mirror[ed] the proposed project itself." (Ibid.) The court noted, if the project objectives simply require "pursuing the proposed project, then no alternative other than the proposed project would do. All competing reasonable alternatives would simply be defined out of consideration." (Ibid.) Here, the four project objectives consist of ways to protect the future reliability of SWP water deliveries. However, the four project objectives are not so narrow as to eliminate all possible ways to achieve this purpose other than the proposed project. Contrary to the comment, a wide range of alternatives, including both conveyance and non-conveyance alternatives, were considered but many were screened out for further analysis. Please see Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives development and screening process and the reasonable range of feasible alternatives considered in the EIR.
734-3	2). Impacts to Delta communities not adequately evaluated and mitigated: The Draft EIR does not adequately evaluate the impacts of the project to Delta communities, especially those dependent on the Delta as their domestic water source, and the proposed Community Benefits program lacks evidence-based research demonstrating the effectiveness of it various components. The FEIR must provide concrete plans for programs that are	The Draft EIR was written under CEQA guidelines and considers potential significant environmental impacts. Please see Chapter 6, Water Supply, for details on the water supply changes resulting from the project alternatives. Overall, the proposed project and its alternatives would sustain and improve water supply reliability and would not affect the water supply for users within the Delta. The Community Benefits Program was developed in addition to environmental mitigation required through CEQA and other environmental regulatory compliance processes. Appendix 3G, Community Benefits

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	evidence-based and include funding mechanisms that ensure the communities receive the benefits.	Program Framework, details the framework of the Community Benefits Program that DWR would implement. The Framework was informed by public input received through interested parties from within local Delta communities, interviews, workshops, and public comments. Chapter 34, Community Benefits Program Analysis, analyzes the potential effects of that framework; however, the specifics of implementing the program would continue to be developed and finalized after potential approval of the proposed Delta Conveyance Project, which may require additional environmental review and permitting. The Community Benefits Program would continue to be developed, with input from the public, following potential approval of the proposed project, which would allow the opportunity of continued public involvement (see the figure titled General Process for Development of Community Benefits Program in Appendix 3G). Further development and finalization of the details of the Delta Community Fund will also occur, as described in Appendix 3G, in the section titled Steps to Further Develop the Community Benefits Program. Appendix 3G specifically lists the identification of funding limits and potential actions to be financed as a next step that will be developed with community input upon the completion of CEQA review if DWR approves the proposed project. No decisions will be made regarding community benefits funding or specific actions until the completion of CEQA review if DWR approves the proposed Delta Conveyance Project. Please refer to Common Response 7, Implementation Considerations, regarding additional information about the Community Benefits Program, project costs, and funding. Please also refer to the Efforts to Minimize Delta Community Effects technical memoranda in the Engineering Project Reports regarding the engineering and design modifications made to

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		reduce Delta community effects (Delta Conveyance Design and Construction Authority 2022a, 2022b).
734-4	3). Inadequate consideration for Tribal Cultural Resources: While the Draft EIR acknowledges that Tribes prefer the "no project" alternative, their concerns have been largely unaddressed, to the extent that the DEIR finds the proposed project will have significant and unavoidable impacts on Tribal Cultural Resources. The FEIR must include more alternatives that would comprehensively address Tribal concerns. At a minimum, increased Delta outflows are required to support recovery of the Bay Delta ecosystems including the TES species therein. Moreover, a healthy Bay Delta is required for recovery of anadromous species throughout the entire length of the Sacramento River, including its far northern reaches in Siskiyou County. With this comment being submitted at the time when the UN Biodiversity Conference is meeting in Montreal, Canada, we must realize that despite on-going efforts, biodiversity is deteriorating worldwide and this decline is projected to worsen with business-as-usual scenarios. The tiny delta smelt is one of the best indicators of environmental conditions in the San Francisco Bay-Delta — an ecosystem that is now rapidly unraveling. The delta smelt is only one of 12 of the original 29 indigenous Delta fish species that have been eliminated entirely from the area or that are threatened with extinction. During the latest survey for fish in the Delta waters, not a single smelt was found. "When we manage ecosystems we don't manage them to flourish. We push them to the brink of collapse — tak(ing) as much as we possibly can." [Footnote 1: Suzanne Simard, Forests Are Wired For Wisdom	Chapter 32, Tribal Cultural Resources, section titled Consultation and Engagement with Tribes, describes DWR's good-faith effort to foster meaningful consultation that recognizes Tribal expertise in the identification and consideration of Tribal cultural resources. Please see Chapter 32 and Common Response 16, Tribal Cultural Resources, regarding Tribal consultation efforts aimed at identification, impacts, and mitigation for Tribal cultural resources. As described in Chapter 32, DWR has identified a suite of mitigation measures to mitigate impacts on the Delta Tribal cultural landscape at various scales in recognition of the complexity of the Tribal cultural landscape. Mitigation Measure TCR-1d commits to incorporation of Tribal knowledge, including Tribal Ecological Knowledge, into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources (Appendix 3F) and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. However, as described in Chapter 32, even with mitigation incorporated, impacts would not be fully reduced and are determined to be significant and unavoidable (see section titled Summary Comparison of Alternatives, which states that DWR recognizes, and has heard during consultation, that Tribes oppose the Delta Conveyance Project due to the potential unmitigable impacts on the Tribal cultural landscape and the many resources that make this place foundational to Tribes). DWR is committed to continuing consultation and engagement with Tribes as part of the project's mitigation measures and will consider Tribal perspectives in DWR's decision on whether to approve the project. The EIR fully analyzes the potentially significant impacts of the proposed project and alternatives per the requirements of CEQA and provides substantial evidence that impacts related to ecosystem-effects would either be less than significant or could be reduced to a less-than-significant

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	https://onbeing.org/programs/suzanne-simard-forests-are-wired-for-wisdom/] The hubristic belief that we can engineer the ecosphere better than Nature has created the Global Climate and Biodiversity Crisis that we face.	level with implementation of mitigation measures. Please refer to the impact analyses in Chapter 12, Fish and Aquatic Resources, and Chapter 13, Terrestrial Biological Resources. Effects on Delta flows and resulting flow-survival effects on delta smelt and longfin smelt prey resources are assessed in Impacts AQUA-6 and AQUA-7. Please refer to Common Response 3, Alternatives Development and Description, regarding the development of the reasonable range of feasible alternatives evaluated in the EIR. DWR, as lead agency and decision maker, will carefully consider all the project alternatives, including the No Project Alternative, before making a decision on the project. Please see Common Response 16, Tribal Cultural Resources, regarding the consideration of Tribal perspectives in DWR's decision on whether to approve the proposed project.
734-5	4). Inadequate evaluation of cumulative impacts: The Bay Delta ecosystems are already heavily compromised because of the cumulative impacts of existing projects. The DEIR fails to adequately consider the cumulative impacts of the Proposed Project given the compounding negative environmental impacts to the Bay Delta of other proposed and ongoing projects activities such as voluntary agreements, diversions for the proposed Sites Reservoir Project, expansion of the San Luis and Los Banos Reservoirs, other dams and canal projects, and pollution from agricultural run-off (to name a few). These many cumulative impacts must be comprehensively addressed in the FEIR. For example, in a recent email from the Department of Water Resources dated December 7, 2022, it was suggested that "if the [Delta Conveyance] project had been operational during the storm events at the end of 2021, the State Water Project could have captured about 236,000 acre- feet of water". Intercepting such	DWR has fully and adequately evaluated the whole of the proposed project. The EIR appropriately identifies and describes projects that are considered cumulative projects in Appendix 3C, Defining Existing Conditions, No Project Alternative, and Cumulative Impact Conditions, which documents the criteria used to identify projects under the cumulative impact analysis and then provides a list of those projects, including the Sites Reservoir Project and the San Luis Reservoir expansion project. The EIR then discloses the cumulative impacts of the Delta Conveyance Project in combination with other cumulative projects that could result in additive impacts on the physical environment. Please refer to Chapters 7-32 for these cumulative impact analyses. Please also refer to Common Response 1, CEQA Process, General Approach to Analysis, and Other Environmental Review Issues, regarding the EIR approach to cumulative impact analyses and evaluation of the whole of the project. The San Luis expansion, Los Banos Expansion, and Sites Reservoir Project and the Delta Conveyance Project are water-related projects currently under environmental review, but these the projects serve different

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	a pulse of water denies the downstream reaches of the Sacramento River and the Delta, polluted from agricultural runoff, sewage effluent and more, the essential benefit of flushing polluted water and sediments out to sea while also impacting salmon migration. The river ecosystems require such pulse events and cumulative impacts to the Delta from other dams, diversions, and pollution from agriculture and decreased river flows and pulses must be comprehensively addressed. Skimming off 236,000 acre-feet of water from the flow of the Sacramento River at the very end of Fall and the beginning of Winter, a time when crops are not being irrigated nor gardens being watered much, presumes a storage facility to hold that volume. The San Luis Reservoir is currently being raised an additional ten feet but only adds 130,000 acre-feet. The Sites reservoir, an acknowledged but unbuilt part of the SWP, is reported as "moving forward" [Footnote 2: Sites Reservoir is Sacramento Valley's water project. But L.A. is taking a huge role https://www.sacbee.com/news/california/water-and-drought/article225944195.html] and "remain(ing) on track" [Footnote 3: Massive Northern California reservoir project scaled back to reduce costs https://www.mercurynews.com/2020/05/11/massive-northern-california-reservoir-project-scaled-back-to-reduce-costs/] and would create more storage. It is expected to deliver on average 243,000 acre feet annually; a figure slightly above the amount suggested in the email aforementioned. Unfortunately, "(e)vaporation from the 14,000 acres (5,700 ha) reservoir would remove 30,000 acre-feet (37,000,000 m3) per year" [Footnote 4: Sites Reservoir https://en.wikipedia.org/wiki/Sites_Reservoir] - that's over	purposes (storage versus diversion), can be implemented independently, are being implemented by different lead agencies, and none are a reasonably foreseeable consequence of the others. For example, the proposed Sites Reservoir project is subject to its own EIR that must be approved by the Sites Reservoir Authority. The Sites Reservoir is not part of, or require by, the proposed Delta Conveyance Project and therefore no piecemealing has occurred. For the purposes of the Delta Conveyance Project EIR, the Sites Reservoir Project is included on the cumulative project list, as mentioned above, and evaluated where appropriate in Chapters 7 through 32. The hydrologic modeling (documented in Appendix 5A, Modeling Technical Appendix) does not assume Sites Reservoir would provide source water that the proposed Delta Conveyance Project would divert. Another example, is the San Luis Reservoir expansion project and the San Luis Reservoir Low Point Project, are included on the cumulative project list, because they would, in part, support Valley Water's water supply reliability, which is consistent with the overall approach for identifying cumulative projects. With respect to river flows and pulses, potential diversions are increasingly restricted with lower river flow entering the Delta (see discussion of operational criteria in Chapter 3, Description of the Proposed Project and Alternatives). As described in Chapter 3 and Common Response 3, Alternatives Development and Description, the proposed Delta Conveyance Project would be operated under strict operating criteria that would protect pulse flows. The proposed project and project alternatives would not affect floodplain inundation because diversions occur in the north Delta, downstream of floodplains such as the Yolo Bypass; see also the discussion of upstream aquatic species in Common Response 1, which discusses that limited to no changes are expected in upstream rivers and reservoirs because of operation of the proposed Delta Conveyance Project. As such, there would be no biological meaningful effect on fish species in areas upstream of the north Delta intakes. The incremental effect on

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	twelve percent of the expected deliveries of Sacramento River water lost. There is no mention of the Sites Reservoir in the DEIR. This does bring up the issue of piecemealing prohibited by CEQA. "The court explained that the California Supreme Court set forth a piecemealing test in Laurel Heights Improvement Association v. Regents of University of California (1988) 47 Cal.3d 376, 396. Specifically, the Supreme Court held that an EIR must include an analysis of the environmental effects of future expansion if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. For instance, there may be improper piecemealing when the purpose of the reviewed project is to be the first step toward future development." [Footnote 5: TAG: PIECEMEALING https://www.rmmenvirolaw.com/tag/piecemealing/] (emphasis added)	inundation of bench rearing habitat is assessed in Chapter 12 (e.g., Impact AQUA-2) and feasible mitigation is proposed to reduce the potentially significant impact to less than significant levels.
734-6	5). Problems with irrigating the Westlands Water District: In the aforementioned email, there was the suggestion that "the State Water Project could have captured about 236,000 acre-feet of water". However, this is less than 20% of the water currently used for the irrigation of crops in the Westlands Water District [Footnote 6: Water Supply - Westlands Water District https://wwd.ca.gov/water-management/water-supply/] and less than the 300,000 acre-feet of water estimated to be used just for irrigation of almond trees grown there [Footnote 7: California's Thirsty Almonds	Westlands Water District is not a State Water Project contractor and therefore is not a public water agency involved in the proposed Delta Conveyance Project. Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. As described in Chapter 1, approximately 70% of the contracted State Water Project water supply goes to municipal and industrial water users and 30% to agricultural users. The Delta Conveyance Project would be a part of the State Water Project, and Common Response 5, Public Water Agencies Water Management Practices, describes existing efforts and future actions to be undertaken by State Water Project users to ensure California's water

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	https://eastbayexpress.com/californias-thirsty-almonds-1/]. Thirty percent of the water delivered by the SWP is used for agricultural irrigation [Footnote 8: California State Water Project https://en.wikipedia.org/wiki/California_State_Water_Project]. The Westlands Water District, one of the largest SWP contractors, would be one of the prime beneficiaries for additional water supplies despite the email's rhetoric of the 236,000 acre-feet being "enough water for over 2.5 million people, or nearly 850,000 households, for a full year." "The majority of counties in California are not served by the State Water Project, and many served by the State Water Project receive little water from it." [Footnote 9: DELTA FLOWS: What's missing in the new Delta Tunnel price tag? https://www.restorethedelta.org/2020/08/23/delta-flows-whats-missing-in-the-new-delta-tunnel-price-tag/] The San Joaquin Valley wherein the Westlands Water District is located is a desert by definition [Footnote 10: USGS - What Is A Desert? https://pubs.usgs.gov/gip/deserts/what/] receiving only 8 inches of rain annually. Initially growing drought-tolerant cereal grain crops, enhanced water availability, first by groundwater extraction followed by water deliveries from the Central Valley Project and the State Water Project, encouraged the farming of ever more thirsty, irrigation dependent crops [Footnote 11: History - Westlands Water District https://wwd.ca.gov/about-westlands/history/] resulting in the vast acreage of almonds, pistachios, tomatoes and even grapes currently grown [Footnote 12: Crop Report - 2021 - Westlands Water District https://wwd.ca.gov/crop-report-2021/] with most of the harvested nuts getting exported [Footnote 13: Stop Water Abuse by the Almond and Pistachio Empire	resources are being used efficiently and sustainably. The Delta Conveyance Project does not propose any changes to the beneficial uses to which water delivered through the project conveyance or SWP would be put to use. Common Response 8, Relationship to Other Plans, Projects, Policies, and Programs, provides a description of beneficial uses and regulations associated with these uses. The Delta Conveyance Project would be operated as a component of the SWP and would be used to help convey SWP water to contracted water users. It is outside the scope of the project to make determinations regarding what constitutes a beneficial use or to modify water service contracts between the California Department of Water Resources (DWR) and the SWP contractors. This includes changes in the uses to which contractors may put project water. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives development process and the range and scope of alternatives considered. Please also refer to Common Response 3 regarding alternatives suggesting demand management and reducing or eliminating exports. Please refer to response to comment 734-2 regarding the adequacy of the purpose and objectives statements for the purposes of CEQA.

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	https://www.nytimes.com/roomfordebate/2015/04/07/can-farms-survive-without-drying-up-california-13/stop-water-abuse-by-the-almond-and-pistachio-empire]. Much of the soil in the Westlands Water District contains "extraordinarily elevated concentrations of selenium, boron, chromium, molybdenum, and extremely high concentrations of various salts that disrupt the normal ionic balance of the aquatic system." [Footnote 14: Westlands Water District https://en.wikipedia.org/wiki/Westlands_Water_District] Irrigation runoff containing these leached elements caused the 1983 catastrophe at the Kesterson National Wildlife Refuge. Continued agriculture in the Westlands Water District is highly problematic and its permanent fallowing should be seriously considered. "When you look back over the last 1-or-2,000 years, you can see that (the last century) stood out as being a wet century," (Lynn) Ingram (a paleoclimatologist at the University of California, Berkeley) says, adding that the average over the last couple of thousand years might've been 15 percent drier than the 20th century. And that's precisely when most development happened in California. In the 20th century, California's population grew more than twenty-fold and farmers planted millions of acres of irrigated farmland. The planning and building of California's vast plumbing system of dams and canals was based on the climate that engineers thought we had." [Footnote 15: Megadroughts: Four Points to Put California's Dry Times in Perspective https://www.kqed.org/science/13986/megadroughts-four-points-to-put-californias-dry-times-in-perspective]	

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	"(The Westlands Water District) is really an area that should have never been farmed," said Richard Walker, a retired UC Berkeley geography professor and an expert on agricultural economics. California's elected officials, however, have by and large ignored the idea of buying up half of the farmland in Westlands and retiring it for good. "It would be cheaper to do that than to build these siphons under the delta," Walker noted, referring to the governor's Bay Delta Conservation Plan (BDCP). "But you'll never get the political will to do that." [Footnote 7: California's Thirsty Almonds https://eastbayexpress.com/californias-thirsty-almonds-1/] The FEIR must comprehensively evaluate the inappropriate, water-intensive activities occurring in the Central Valley and provide solutions beyond the impermissibly narrow project objectives (see comment 1 [comment 2]).	
734-7	6). Impacts of headwater resource management: The DEIR must also consider water resource management practices that go beyond the Central Valley and consider headwater sources. The aforementioned email states: "The snowpack in the mountains has functioned as additional storage, delaying water from flowing into downstream reservoirs and into the Delta until late spring when it began to melt. This pattern of accumulating snowpack followed by slower snowmelt and more stable streamflow is the basis for historical water and flood management." The forests of California could be capable of functioning similarly in the future given changes made to the Forestry Practice Rules as an additional alternative.	Please see Chapter 1, Introduction, for a description of the State Water Project and background information regarding how water supply has been developed and managed in California. The Delta Conveyance Project would be a part of the State Water Project, and Common Response 5, Public Water Agencies Water Management Practices, describes existing efforts and future actions to be undertaken by State Water Project users to ensure California's water resources are being used efficiently and sustainably. The Delta Conveyance Project is one of many projects that will help meet California's water management needs but is not intended to be the only project that could meet water management needs. Please refer to Appendix 3A, Identification of Water Conveyance Alternatives, and Common Response 3, Alternatives Development and Description, regarding the alternatives screening process and the range and scope of alternatives considered in the EIR. DWR, as a state agency, does not have authority or responsibility over forest management and cannot change the management of forests in the state of California on state or federally

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	Hundreds of forest clearcuts are visible in the image of a large swath of the Sacramento watershed below (See figure 1 [Exhibit 1]) with many tree plantations discernible on viewing the full size image available at the address listed below. Intact mature and old growth forests are capable of regulating soil moisture thereby producing more reliable and less varied streamflows throughout the year. In contrast, clearcuts allow rain to run off the soil rapidly and also allow sunlight to melt the snowpack more rapidly preventing the moisture from percolating into the soil thus producing higher streamflows during the winter and spring and depleted flows in the summer and fall. Given the current low levels of California's reservoirs, this might be acceptable in the short term; but the future may find the reservoirs overflowing in the spring such that dam operators must release water prematurely. This is the situation with a watershed infested with clearcuts and young tree plantations. However, after growing for about fifteen years, tree plantations (as opposed to mature/old growth forests) cause a persistent reduction in streamflows. "Daily streamflow from a 40- to 53-yr-old Douglas-fir plantation was 25% lower on average, and 50% lower during the summer (June 15 to Sept 15 of 2006 to 2009), relative to the reference watershed containing mature/ old forest. High evapotranspiration from rapidly regenerating vegetation, including planted Douglas-fir, and from the residual plantation forest in the riparian buffer appeared to explain the persistence of streamflow deficits after logging of nearly 100% of the forest plantation. Results of this study indicated that 40- to 50-yr rotations of Douglas-fir plantations can produce persistent, large summer	owned lands. Given DWRs role and responsibility as a state agency, it cannot modify, enforce, or change Forestry Practice Rules that are cited by the comment. In addition, forest management would not have the potential to meet the most basic objective of the project described in Chapter 2 as to restore and protect the reliability of SWP water deliveries and, potentially, CVP water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner, because forest management would not have anything to do with the existing SWP infrastructure within the Delta and would not be able to restore or protect the reliability of SWP water deliveries south of the Delta.

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	low flow deficits. While the clear-cutting of these plantations, with retention of riparian buffers, increased daily streamflow slightly, flows did not return to pre- first entry conditions. Results of this study indicate that contemporary forestry harvesting practices, including 40- to 50-yr rotations of Douglas-fir plantations with riparian buffers, may produce persistent low flow deficits." [Footnote 17: Catalina Segura, Kevin D. Bladon, Jeff A. Hatten, Julia A. Jones, V. Cody Hale, George G. Ice, 2020. Long-term effects of forest harvesting on summer low flow deficits in the Coast Range of Oregon, Journal of Hydrology, Volume 585, 124749, ISSN 0022-1694 https://doi.org/10.1016/j.jhydrol.2020.124749.] (emphasis added) These same effects have been observed at many sites globally. Changing the Forestry Practice Rules to require non-even age selective harvesting of rather small stands of trees and increasing the rotation period of harvests to eighty years or more, an age when trees are beginning to be considered mature, would create conditions more akin to mature/old growth forest stands producing a more stable streamflow than is currently occurring while producing more higher quality timber.	
734-8	Exhibit 1: Figure 1. Image of the 2021 Dixie Fire [Footnote 16: Image of the 2021 Dixie Fire https://eoimages.gsfc.nasa.gov/images/imagerecords/148000/148669/dixie_etm_2021216_lrg.jpg] showing a large swath of the Sacramento River watershed.	The commenter provided this attachment for reference purposes in support of their comments. Those comments are addressed in these responses to the commenter's letter. DWR has reviewed all comments and will consider all comments in its decision-making process.
734-9	In summary, the DEIR for the Delta Conveyance Project perpetuates unsustainable exports of water to the southern part of the state to the huge detriment of Delta communities and ecosystems and the entire Sacramento River watershed.	Please refer to response to comment 734-2 and 734-6 regarding the purpose of the project and beneficial uses of water in the state of California. Please refer to response to comment 734-3 regarding potentially significant environmental impacts evaluated in the EIR, the Community

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	The future of sustainable water availability lies in watershed protection, water conservation, recycling and desalination infrastructure, and demand reduction measures, and the Final EIR must fully evaluate these alternative solutions for building a sustainable state water distribution system. Given the many negative and unmitigable consequences that would result from implementing the Delta Conveyance Project which are only partially enumerated above, we strongly advocate for a No Project decision.	Benefits Program, and engineering and design modifications made to reduce Delta community effects. Please refer to response to comments 734-6 and 734-7 regarding public water agencies water management practices, which include water conservation, recycling, desalination, and demand reduction measures. Please refer to Common Response 4, No Project Alternative Description and Analysis, which describes the No Project Alternative requirements under CEQA and commenter preference for the No Project Alternative. As required by CEQA, the No Project Alternative includes projects and programs that could occur in the absence of the Delta Conveyance Project and the associated environmental impacts that are reasonably foreseeable results of not approving the project. Many of the reasonably foreseeable actions included in the No Project Alternative include water conservation, recycling, groundwater recovery, desalination plants, surface water storage, and groundwater management; however, they would not address most of the basic objectives of the Delta Conveyance Project, including the risks to the State Water Project supplies from the Delta presented by climate change, sea level rise, flooding, and earthquakes. DWR, as lead agency and decision maker, will carefully consider all the project alternatives, including the No Project Alternative, before making a decision on the proposed project.