

B.F. Sisk Dam Raise and Reservoir Expansion Project Environmental Impact Report/ Supplemental Environmental Impact Statement

FINAL



— BUREAU OF —
RECLAMATION

Estimated Lead Agency
Total Costs Associated with
Developing and Producing
this EIR/SEIS is \$1,659,000

December 2020

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Mission Statements

The mission of the Department of the Interior is to conserve and manage the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provide scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honor the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

The mission of the San Luis & Delta-Mendota Water Authority is to operate the Delta-Mendota Canal and related facilities reliably and cost-effectively, and to support member agencies in restoring and protecting adequate, affordable water supplies for agricultural, municipal and industrial, and environmental uses.

B.F. Sisk Dam Raise and Reservoir Expansion Project
Final Environmental Impact Report/Supplemental Environmental Impact Statement

Lead Agencies: San Luis & Delta-Mendota Water Authority (SLDMWA) and the United States Department of the Interior, Bureau of Reclamation (Reclamation)

Cooperating Agencies and Responsible Agencies: California Department of Transportation (Caltrans)

The project is located in the following counties in California: Contra Costa, Fresno, Imperial, Kern, Kings, Los Angeles, Merced, Orange, Riverside, San Benito, San Bernardino, San Diego, San Joaquin, San Luis Obispo, Santa Clara, Stanislaus and Ventura Counties

State Clearing House Number: 2009091004

ABSTRACT

Reclamation and the San Luis and Delta-Mendota Water Authority have made available the B.F. Sisk Dam and Reservoir Expansion Project Final Environmental Impact Report/Supplemental Environmental Impact Statement (Final EIR/SEIS). The Notice of Availability for the Draft Environmental Impact Report/ Supplemental Environmental Impact Statement (Draft EIR/SEIS) was posted in the Federal Register (Vol. 85, No. 158) on Friday August 14, 2020. The Draft EIR/SEIS evaluates increasing storage capacity in San Luis Reservoir to provide greater water supply reliability for South-of-Delta Central Valley Project (CVP) and State Water Project (SWP) water contractors. The Draft EIR/SEIS was developed as a subsequent EIR to the B.F. Sisk SOD Modification Project EIS/EIR (SCH number-2009-091004) pursuant to Public Resources Code section 21166 and California Environmental Quality Act Guidelines section 15162. Increased capacity within San Luis Reservoir would only be used to help meet existing demands and would not serve any new demands in the South-of-Delta CVP and SWP service areas. In addition to the No Project/No Action Alternative, this EIR/SEIS evaluates a (1) a Non-Structural Alternative under which operational modifications in San Luis Reservoir would be used to provide operation flexibility; and (2) a Dam Raise Alternative under which B.F. Sisk Dam would be raised an additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam Safety of Dam Modification Project.

In accordance with the requirements of National Environmental Policy Act and the California Environmental Quality Act, Reclamation and San Luis and Delta-Mendota Water Authority have collaboratively selected the Dam Raise Alternative as the preferred alternative/proposed project for implementation. Under the Dam Raise Alternative there are three operational subalternatives. The preferred operational subalternative is not specified in this Final EIR/SEIS. Selection of an operational subalternative requires additional refinement and information on project beneficiaries and will be identified in the Record of Decision.

This Final EIR/SEIS has been prepared according to requirements of the National Environmental Policy Act and the California Environmental Quality Act. This Final EIR/SEIS contains all comments on the Draft EIR/SEIS, the responses to those comments, and revisions to the Draft EIR/SEIS text based on the issues raised by comments, or corrections.

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Chapter 1 Introduction

The Notice of Availability for the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS) in the Federal Register (Vol. 85, No. 158) on Friday, August 14, 2020. The Draft EIR/SEIS was developed as a subsequent EIR to the B.F. Sisk SOD Modification Project EIS/EIR (SCH number-2009-091004) pursuant to Public Resources Code section 21166 and California Environmental Quality Act (CEQA) Guidelines section 15162. The Draft EIR/SEIS identified three alternatives, the No Project/No Action Alternative, the Non-Structural Alternative, and Dam Raise Alternative. A public meeting was scheduled for August 25, 2020. The public meeting was rescheduled and held on September 3, 2020 virtually via Microsoft Teams due to the coronavirus disease pandemic and the associated precautions and procedures being followed throughout California. The public comment period concluded September 28, 2020. Written comments were received from federal, state, and local agencies, nongovernmental organizations, and individual members of the public.

This Final Environmental Impact Report/Supplemental Environmental Impact Statement contains all comments on the Draft EIR/SEIS and the responses to those comments. The Final EIR/SEIS also contains the following elements:

- Chapter 2 is an overview of the B.F. Sisk Dam Raise and Reservoir Expansion Project.
- Chapter 3 provides comments on the Draft EIR/SEIS excerpted from the comment letters and the responses to those comments.
- Chapter 4 presents revisions to the main body of the Draft EIR/SEIS in errata format based on issues raised by public comments, or corrections.
- Chapter 5 includes the Final EIR/SEIS references.
- Appendix A includes copies of the original comments on the Draft EIR/SEIS.
- Appendix B presents revisions to the Draft EIR/SEIS appendices in errata format based on issues raised by comments, or corrections.
- Appendix C includes the Mitigation, Monitoring and Reporting Program.
- Appendix D includes the index and distribution list for the Final EIR/SEIS.

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Chapter 2 Overview of the B.F. Sisk Dam Raise and Reservoir Expansion Project

2.1 Project Background and History

B.F. Sisk Dam was constructed to create the offstream San Luis Reservoir, which provides supplemental storage capacity for the CVP and SWP. Currently, San Luis Reservoir provides 2,027,840 acre-feet (AF) of water storage for the CVP and SWP. The water stored in the reservoir is managed for federal (approximately 45%) and state (approximately 55%) uses as part of the CVP and SWP, respectively. Typically, during the winter and early spring, water conveyed from the Delta in the Delta-Mendota Canal (DMC) (a CVP facility) and California Aqueduct (a SWP facility) is lifted from O'Neill Forebay into San Luis Reservoir for storage using the pump-turbines in Gianelli Pumping-Generating Plant. Figure 2-1 depicts San Luis Reservoir and associated facilities. Later in the year typically late spring and summer months, when CVP and SWP demand increases, water is released from San Luis Reservoir through O'Neill Forebay and conveyed via the DMC or the San Luis Canal (a joint-use CVP and SWP facility) and California Aqueduct for use by water contractors (Reclamation and DWR 2019). As water is released back through Gianelli Pumping-Generating Plant, the plant generates hydropower, which is used to offset the energy demand of the project operations. Water is also diverted from the west side of San Luis Reservoir at the Pacheco Pumping Plant to supply water to two CVP contractors, the Santa Clara Valley Water District (Valley Water District) (Reclamation and DWR 2019). In addition to storing and supplying water, San Luis Reservoir provides recreation opportunities.

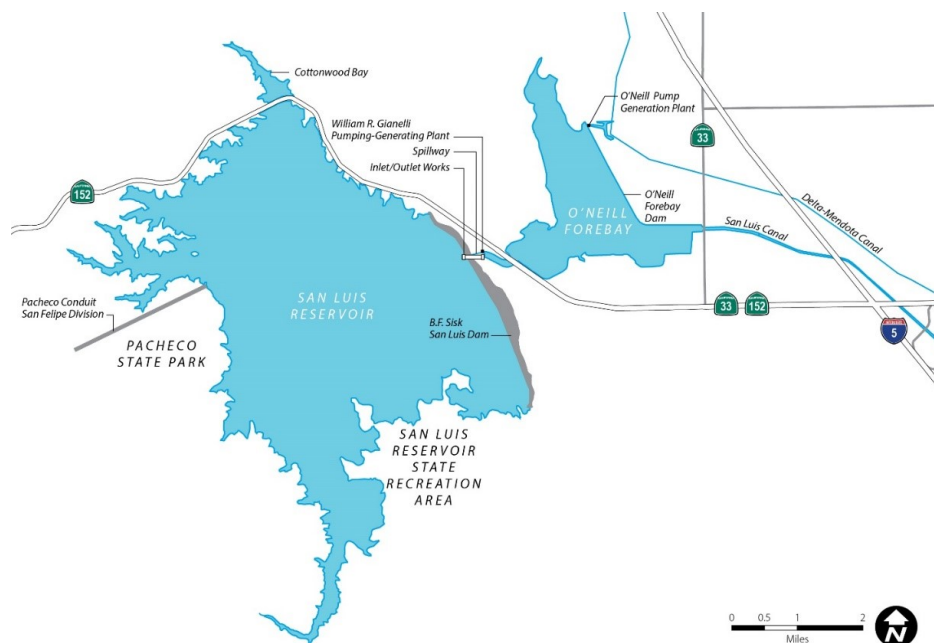


Figure 2-1. San Luis Reservoir and Associated Facilities

The B.F. Sisk Dam Safety of Dams (SOD) Modification Project is a federal project that, if not completed, has the potential to influence water supply conditions in San Luis Reservoir from potential dam deformation due to a seismic event. In 2006, United States Department of Interior, Bureau of Reclamation (Reclamation) completed a risk analysis of B.F. Sisk Dam that concluded there is justification to take action to reduce risk to the downstream public from a potential severe earthquake (Reclamation 2006). Consequently, Reclamation, in coordination with DWR, completed the B. F. Sisk Dam SOD Modification Project Final EIS/EIR in December 2019¹. The Crest Raise Alternative, one of the alternatives evaluated in the study that would reduce the dam safety risk, was selected to be implemented. Raising the crest elevation 12 feet would increase the distance between the water surface and the dam crest (freeboard) to prevent reservoir overtopping and failure in the event of dam deformation from a seismic event. The Crest Raise Alternative does not provide for any additional storage. In December 2019, Reclamation signed a Record of Decision (ROD) detailing the agency's decision to implement the Crest Raise Alternative.

The Reclamation Safety of Dams Act of November 2, 1978 (SOD Act) (43 U.S.C. §506 et seq.), was amended by P.L. 114-113 to include authority for Reclamation to develop additional project benefits in conjunction with SOD modifications, including the B.F. Sisk Dam SOD Modification Project. Pursuant to Section 5.B. of the SOD Act, as amended, Reclamation must determine that additional project benefits are necessary and in the interest of the United States prior to developing any additional project benefits, consistent with Reclamation Law. Furthermore, it must be determined that the development of additional project benefits will not negatively impact the B.F. Sisk Dam SOD Modification Project.

As a connected action to the B.F. Sisk Dam SOD Modification Project, Reclamation and San Luis and Delta-Mendota Water Authority (SLDMWA) seek to evaluate an increase in storage capacity of San Luis Reservoir. The increased storage capacity could be achieved by implementation of the Proposed Action to raise the embankment elevation of the B.F. Sisk Dam by 10 feet across the entire dam crest above the level proposed for dam safety purposes. This additional 10 feet of dam embankment could add approximately 130,000 AF of water storage to San Luis Reservoir. SLDMWA, in coordination with Reclamation, is conducting a feasibility study to evaluate the Proposed Action and a potential cost-share in accordance with the Reclamation SOD Act and the Water Infrastructure Improvements for the Nation (WIIN) Act (P.L. 114-322) §4007.

2.2 Project Purpose and Need/Project Objectives

2.2.1 Project Purpose and Need

Reclamation's primary purpose and need is to evaluate the feasibility report and determine if SLDMWA's request to increase water storage supply provides an additional benefit in conjunction with the current B.F. Sisk Dam SOD Modification Project, is consistent with Reclamation Law, can support a Secretary of Interior's finding of feasibility, has federal benefits pursuant to the WIIN Act, and can be accomplished without negatively impacting the B.F. Sisk Dam SOD Modification

¹ The [B.F. Sisk Dam SOD Modification Project Final EIS/EIR](https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281) is available for review at the following webpage:
https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281

Project. This primary purpose and need are based on the goals of SLDMWA and Reclamation's authority under the WIIN Act and the amended SOD.

2.2.2 Project Objectives

Hydrologic variability and regulatory requirements in the Delta continue to restrict the amount of water that Reclamation and DWR can pump. These limitations cause water supply reliability concerns for CVP and SWP contractors that receive water supplies through Delta conveyance. Regulatory changes, project operations, and overall growth in surface water demand are expected to increase reliance on San Luis Reservoir supplies in the future. These conditions all contribute to a need for actions to improve water supply reliability and operational flexibility south of the Delta.

SLDMWA has developed additional objectives to optimize the water supply benefits of San Luis Reservoir while reducing additional risks to South-of-Delta water contractors by:

- Increasing long-term reliability and quantity of yearly allocations to South-of-Delta contractors dependent on San Luis Reservoir.
- Increasing the certainty of access to supplies stored by South-of-Delta contractors in San Luis Reservoir in subsequent water years.

2.2.3 Project Opportunities

2.2.3.1 Operational Flexibility

Operational flexibility allows water agencies to manage water supplies efficiently by increasing supply and storage management options. Implementing the B. F. Sisk Dam Raise and Reservoir Expansion Project would provide increased storage options to CVP contractors to store non-CVP water here to referenced as non-Project water².

2.2.3.2 Water Supply Reliability

In years when CVP contractors choose to conserve portions of their allocation for use in a subsequent dry year, those contractors can choose to leave that unused supply in San Luis Reservoir as carried-over water. The contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation). The CVP contractors also store their supplemental supply (non-Project water) such as transfer water or conserved water³ into a subsequent year. The contractors also risk losing this water if San Luis Reservoir fills. Implementing the B.F. Sisk Dam Raise and Reservoir Expansion Project could increase storage capacity thereby reducing the likelihood of carried-over supply and other water being lost to CVP contractors from

² Non-Project water includes transfer water acquired by existing South-of-Delta CVP contractors or other non-Project water currently stored in San Luis Reservoir such as conserved water. The water contractors can store non-Project water in San Luis Reservoir under a Warren Act Contract. Similar to carried-over water, the contractors take on a risk of potentially losing non-Project water if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation).

³ Conservation water or conserved water is typically defined as water conserved by utilities through reducing irrecoverable water losses.

spill. Additionally, Reclamation could also capture more CVP Project water⁴ if excess flows become available, pursuant to existing water rights.

2.3 Alternative Formulation

The CEQA and National Environmental Policy Act (NEPA) require an EIR and EIS, respectively, to identify a reasonable range of alternatives and provide guidance on the identification and screening of such alternatives. Both NEPA and CEQA include provisions that alternatives reasonably meet the purpose and need/project objectives and be potentially feasible. A supplemental EIS is to be developed using the same process and format as an original EIS, except that scoping is not required (40 Code of Federal Regulations [CFR] 1502.9). Per CEQA Section 21083.9, SLDMWA held a public scoping meeting via an online web-based tool on May 26, 2020 for the subsequent EIR.

SLDMWA and Reclamation followed a structured, documented process to identify and screen alternatives for inclusion in the EIR/SEIS under development for the B.F. Sisk Dam Raise and Reservoir Expansion Project. Appendix A of the Draft EIR/SEIS describes this process and the alternatives considered in more detail.

SLDMWA and Reclamation started the process by identifying the project objectives/purpose and need. SLDMWA and its member agencies reviewed the project objectives and previous studies in their initial effort to develop conceptual alternatives. This process identified an initial list of 17 measures that could, in part, contribute to the project's objectives/ purposes and needs. The criteria developed to evaluate each measure include the ability of the measure to address the objectives of the project; the reliability and quantity of annual allocations and increasing the certainty of access to supplies for South-of-Delta contractors, and the ability of the measure to address the project purposes and needs; additional project benefits under the B.F. Sisk Dam SOD Modification Project, federal benefits pursuant to the WIIN Act, and confirm no adverse impacts to the B.F. Sisk Dam SOD Modification Project. The measures were scored qualitatively and ranked as high, medium, or low:

- **High (3)** – measure **fully meets** the project's objectives/purpose and need
- **Medium (2)** – measure **partially meets** the project's objectives/purpose and need
- **Low (1)** – measure **does not meet** the project's objectives/purpose and need

Measures that scored highest moved forward to be incorporated into the alternatives. These measures, and their performance, are documented in the Alternatives Development Report (see Appendix A of the Draft EIR/SEIS). The measures remaining after the initial screening were combined into two alternatives (the Non-Structural Alternative and Dam Raise Alternative) that were selected to move forward for analysis (in addition to the No Project/No Action Alternative).

⁴ Article 1(u) of the Water Service Contract defines Project Water as all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Project and in accordance with the terms and conditions of water rights acquired pursuant to California law.

The B.F. Sisk Dam, San Luis Reservoir, and associated infrastructure are existing facilities and crest raise actions from the B.F. Sisk Dam SOD Modification Project have been analyzed under NEPA and CEQA and approved for implementation. As such, the purpose of this EIR/SEIS is to focus on analysis and mitigation of those potential effects on the environment resulting from an additional 10-foot dam raise (Proposed Action). The scope of alternatives comprising a reasonable range will vary depending on the nature of the project under review, the project's impacts, relevant agency policies, and other material facts. In some situations, no potentially feasible alternatives may be available that would achieve most project objectives (e.g., *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184). The reviewing agencies have the discretion to determine, based on the nature of the project and its circumstances, and how many alternatives will constitute a reasonable range.

2.4 Project Alternatives

The two action alternatives and the No Project/No Action Alternative analyzed in the Draft EIR/SEIS are summarized below.

2.4.1 Alternative 1 - No Project/No Action Alternative

Both CEQA Guidelines (Section 15126.6) and NEPA regulations (40 CFR 1502.14(d))⁵ require the evaluation of a No Project Alternative/No Action Alternative, which presents the reasonably foreseeable future conditions in the absence of the proposed project. The purpose of the No Project/No Action Alternative is to allow decision-makers to compare the impacts of approving the project to the impacts of not approving the project. Under CEQA, existing conditions (conditions at the time of issuance of the Notice of Preparation serve as the baseline to determine potential impacts of the alternatives. This differs from NEPA, where the No Action Alternative serves as the baseline to which the action alternative is compared to determine potential impacts. This EIR/SEIS is prepared subsequent to, and uses the baseline evaluation presented in, the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation and DWR 2019), which remains a current and accurate representation of existing conditions.

In this EIR/SEIS, the No Project/No Action Alternative reflects the implementation of the crest raise actions per the B.F. Sisk Dam SOD Modification Project ROD. The crest raise action, as detailed in the B.F. Sisk Dam SOD Modification Project EIS/EIR, includes increasing the dam crest by 12 feet to reduce safety concerns for the downstream public by reducing the likelihood of overtopping if slumping were to occur during a seismic event (Reclamation and DWR 2019). The B.F. Sisk Dam SOD Modification Project EIS/EIR assumes construction would start in 2020 and last between 8 to 12 years and the crest raise action evaluated would not result in an increase in inundation area. Construction actions evaluated in the B.F. Sisk Dam SOD Modification Project EIS/EIR are expected to result in ground disturbance area of approximately 3,905 acres (includes the crest of the dam, the entire downstream slope of the dam, borrow areas, haul routes, site access, and potential construction use areas). As discussed in the B.F. Sisk Dam SOD Modification Project ROD, the crest raise action includes implementation of several mitigation measures to reduce

⁵ The Notice of Intent (NOI) for which this Final Supplemental Environmental Impact Statement is issued was published before September 14, 2020. Therefore, all references to CEQ regulations are to those regulations at 40 CFR parts 1500-1508 in existence as of the date the NOI was published in the Federal Register on May 14, 2020.

environmental impacts. These mitigation measures are evaluated as project actions under the No Project/No Action Alternative analysis in this EIR/SEIS.

The No Project/No Action Alternative was analyzed consistent with existing regulatory requirements, including the Reinitiation of Consultation on the Coordinated Long-Term Operations of CVP and SWP (ROC on LTO) ROD and the 2018 Addendum to the Coordinated Operation Agreement CVP/SWP) and implementation of the B.F. Sisk Dam SOD Modification Project.

2.4.2 Alternative 2 – Non-Structural Alternative

Under Alternative 2, the Non-Structural Alternative, operational measures would be used to contribute to the purpose and need/project objective⁶. Alternative 2 would rely on a change in the current approach for annual CVP water supply allocations. San Luis Reservoir maximum capacity is 2,027,840 AF with a federal share of 966 thousand acre-feet (TAF) and state share of 1,062 TAF. The annual allocation of CVP supplies is managed by Reclamation. Reclamation develops the annual allocation to fully utilize stored CVP supply in the reservoir to meet CVP contractors' contracts and the requirements of other authorized purposes such as Central Valley Project Improvement Act (CVPIA) refuge water supplies. Under the Non-Structural Alternative, Reclamation would change its annual allocation process to reserve up to 310 TAF of stored CVP supply in San Luis Reservoir at the end of wetter years⁷. This water would be reserved in San Luis Reservoir for allocation in subsequent drier years to South-of-Delta CVP contractors. In these drier years, the 310 TAF in reserved supply would be allocated to South-of-Delta CVP contractors, consistent with the CVP's current allocation of water supply stored in San Luis Reservoir, but only if supply is sufficient to meet the demands of senior water rights contractors. Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types. Under this new operational configuration allocated water supply not used by CVP contractors could not be carried over for use in a subsequent year.

This change in San Luis Reservoir operations to increase water supply available in dry and critical years would adversely impact average water supply deliveries to CVP and SWP contractors. This alternative would not completely meet the project objectives/purpose and needs of the Proposed Action. However, Alternative 2 is analyzed in this EIR/SEIS as a non-structural alternative that would partially meet the water supply reliability objective. The non-structural alternative is analyzed in the B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS in accordance with the *Directive and Standard – Developing Additional Project Benefits in Conjunction with a Safety of Dams Modification Project* (Reclamation 2016). This directive and standard includes the requirement for the evaluation of “a non-structural alternative that meets the needs and objectives of the additional benefits of the additional benefits project.” Appendix A of the Draft EIR/SEIS evaluated several non-structural measures that did not contribute to project objective/purpose and need. The Non-Structural Alternative evaluated in this EIR/SEIS includes measures that scored the highest in meeting project

⁶ *The Directive and Standard – Developing Additional Project Benefits in Conjunction with a Safety of Dams Modification Project* (Reclamation 2016) established requirements for developing additional project benefits in conjunction with a SOD modification project. This directive and standard included the requirement for the evaluation of “a non-structural alternative that meets the needs and objectives of the additional benefits of the additional benefits project”

⁷ Wetter years under Alternative 2 are defined as years with South-of Delta CVP allocations of 55% or higher. These allocations usually correlate with Wet or Above Normal year types.

objective/purpose and need. The Non-Structural Alternative would not require any additional construction or maintenance actions.

Alternative 2 is an action connected to the approved B.F. Sisk Dam SOD Modification Project included under Alternative 1. Therefore, the analysis of effects completed for Alternative 2 in this EIR/SEIS considers the additional operational impacts of implementing Alternative 2.

2.4.3 Alternative 3 – Dam Raise Alternative (Proposed Action)

Alternative 3, the Dam Raise Alternative, would be completed by placing additional fill material on the dam embankment to raise the dam crest an additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam SOD Modification Project. The 10-foot embankment raise would support an increase in reservoir storage capacity of 130 TAF. The 10-foot increase in San Luis Reservoir's maximum surface elevation would inundate 445 acres of new land around the shore of the reservoir when the reservoir is full. The newly inundated lands are public lands and would not require additional land acquisitions. Under this alternative, there are three subalternatives that evaluate different operational configurations of this expanded storage capacity (see Section 2.2.2.2 for details). The subalternatives cover varying assignment and use of the increased storage space, as described in more detail below.

Alternative 3 is an action connected to the approved B.F. Sisk Dam SOD Modification Project included under Alternative 1. Therefore, the analysis of effects completed for Alternative 3 in this EIR/SEIS considers the incremental impacts of raising the dam an additional 10 feet above the approved B.F. Sisk Dam SOD Modification Project.

2.4.3.1 Elements Common to all Subalternatives

Project Facilities. All the subalternatives under the Dam Raise Alternative would include modifications to the following project facilities:

B.F. Sisk Dam Embankment and Reservoir Facilities In addition to the increase in dam embankment elevation, all subalternatives would include (1) installation of downstream stability berms and crack filters and (2) raising the existing outlet works intake towers, access bridge, and spillway intake by 10 feet (Figure 2-2).

The existing saddle dike, known as the East Dike, approximately 1,300 feet north of the main embankment, would be modified by adding a downstream filter. With increased reservoir surface elevations, modifications would be made to Dinosaur Point Boat Launch and Goosehead Point Boat Launch (Basalt Use Area) to increase the ramps' operating elevation by 10 feet.

State Route (SR) 152 Facilities. The increase in storage levels will require modifications to a section of SR 152 where it crosses over Cottonwood Bay (see Figure 2-3). The current maximum water level at San Luis Reservoir is 544 feet. Under all Alternative 3 subalternatives, the maximum water level would increase 10 feet. The current elevation of the SR 152 road surface near Cottonwood Creek crossing ranges in elevation from 555 to 558 feet and up. With the lowest point of SR 152 approximately 1 foot above the proposed maximum water storage level, it is assumed that modifications will be needed to protect the roadway from wave action. The SR 152 embankment between milepost MER R5.239 and MER R5.806 would be modified to allow adequate freeboard to protect against wave action. The feasibility-level design used as the basis for this document evaluated

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two design options for the SR 152 modification. The first configuration's design includes raising the embankment by 11 feet in response to raise in maximum water level from the dam raise actions. Additionally, the configuration will include flattening the side slopes from 2:1 to a 3:1 slope to increase seismic stability of the embankment. The second configuration's design includes installing wave barrier walls without raising the embankment. This EIR/SEIS evaluates effects potentially generated from implementation of the first configuration, given its larger construction footprint, longer potential construction schedule, and larger potential environmental impacts. In addition to the embankment modification at Cottonwood Bay, the embankment at milepost MER R6.295 would require the placement of downslope fill to prevent inundation of the roadway when the enlarged reservoir is filled to capacity.

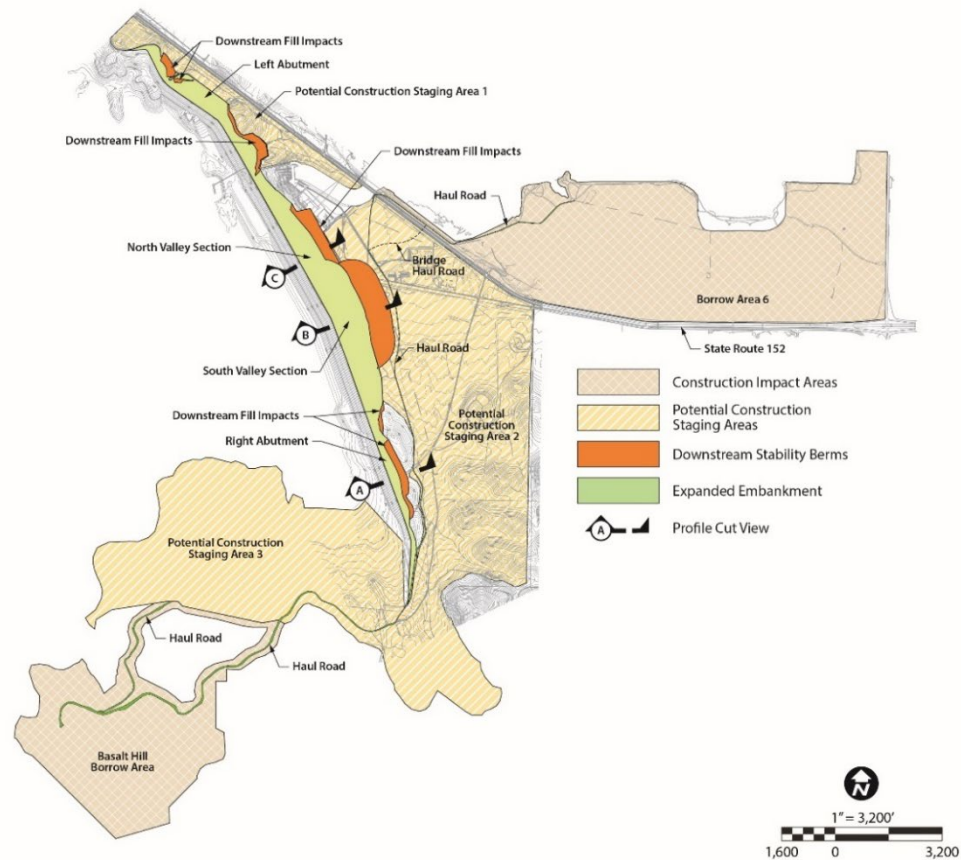


Figure 2-2. Dam Raise Facilities, Construction, and Staging Areas

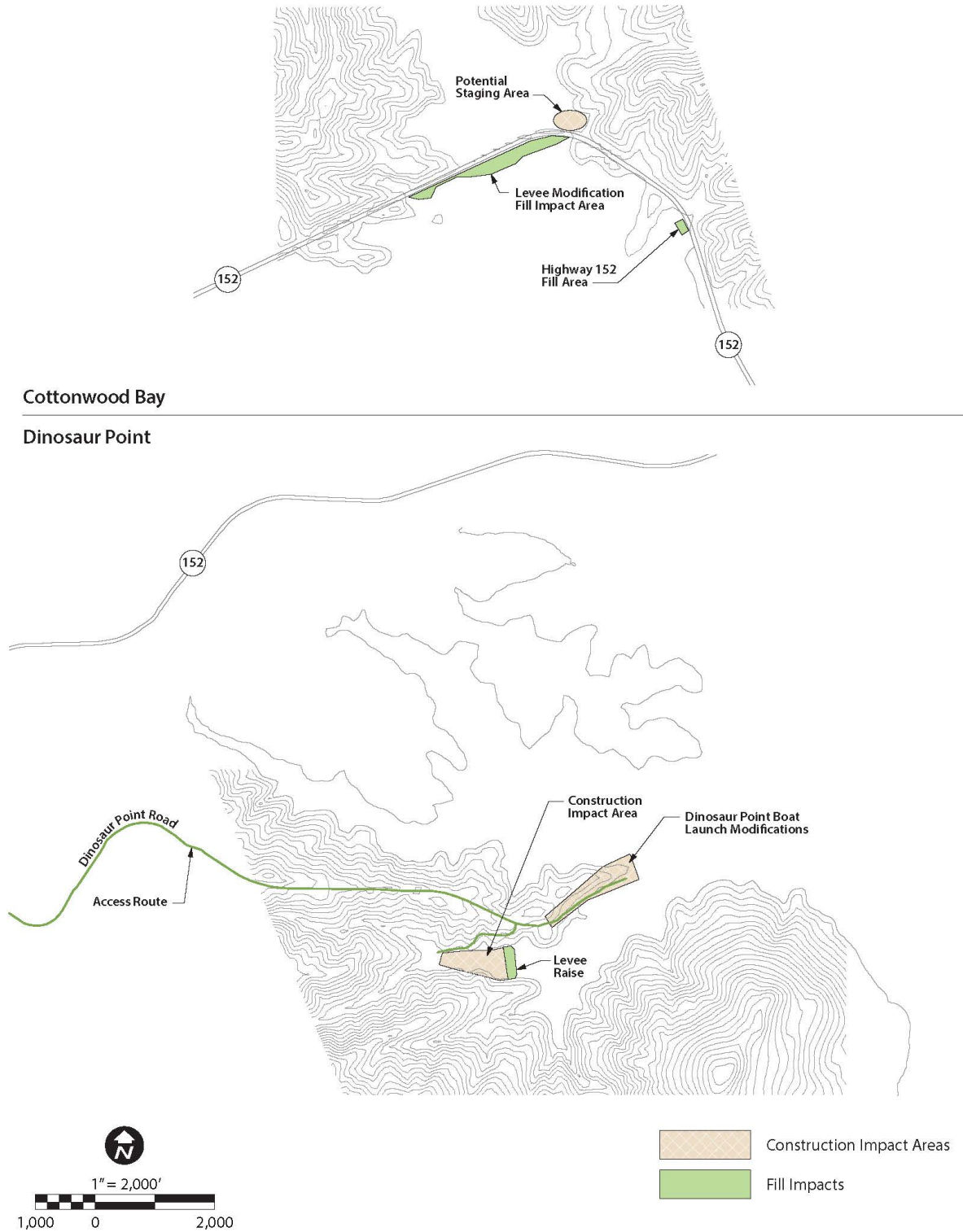


Figure 2-3. State Route 152 and Dinosaur Point Facilities and Construction Areas

Construction of Dam Raise. Construction of the additional 10-foot embankment and associated modifications would initiate during final stages of the construction of the B.F. Sisk Dam SOD Modification Project. Construction of the dam raise action is scheduled to start in September 2025 and be completed within 8 years. Preconstruction and design activities will begin in 2022.

The downstream stability berms would be constructed by first excavating the existing liquefiable and soft foundation soils. The rock blanket or slope protection would be removed to the top elevation of the embankment and stockpiled downstream of the toe. The existing toe drain then would be removed by excavation. After completion of the excavation, the existing filters/drains located at the downstream toe would be reestablished and a new toe drain seepage collection system would be installed, similar to the one currently in place. Stronger material then would be placed as backfill and compacted. At 480 feet, a two-stage downstream crack filter would be constructed. Above an elevation of 550 feet, the raised crest would be developed by simultaneously placing riprap and bedding, core, a two-stage chimney filter, and the downstream shell. An estimated 15 million cubic yard of fill materials for the new enlarged dam embankment would be sourced from two borrow sites—Basalt Hill and Borrow Area 6—and stockpiled downstream of the toe and in Borrow Area 6. It is estimated that approximately 1 million cubic yards of material would need to be sourced from commercial sources in the area. After fill placement is completed, road base and paving of the dam crest complete the overlay raise.

Items in the staging areas would include trailers, equipment, and stockpiled materials. Construction staging and stockpile areas would include the area south of Gianelli Pumping-Generating Plant off Basalt Road, the area north of Gianelli Pumping-Generating Plant off Gonzaga Road, and Dinosaur Point. The access route to the two main staging areas would be SR 152 to Basalt Road. Up to 240 large deliveries or waste material transports off-site per day could be expected, along with the transport and disposal of material to local landfills and the regular commuting of construction personnel.

Aside from areas dedicated to construction staging and transportation, all remaining available space at the areas next to B.F. Sisk Dam would be needed for stockpiling materials. These areas around the dam would be used as a staging area for the full duration of construction. These areas would be returned to preconstruction condition after the project is completed. Equipment used to construct the alternative are in table below, the equipment listed below would be in addition to that utilized in the No Action Alternative:

3 Excavators	4 Bulldozers	5 Cranes/Lifts	5 Compactors
1 Grader	2 Scrapers	13 Dump trucks	5 Water Trucks
4 Flatbed Trucks	2 Wheel Trenchers	1 Barge	2 Concrete Pumps
2 Concrete Saw Cutters	5 Loaders (2 small, 3 large)		

Recreational activities would be suspended for safety reasons for the full duration of construction at Basalt Use Area and Medeiros Use Area and during active construction at Dinosaur Point Use Area (approximately 1 year). Recreational use for boating would be suspended for the full year that both Basalt Use Area and Dinosaur Point Use Area are closed, and it would be limited to areas of the reservoir away from B.F. Sisk Dam for the full construction schedule and other sections of the reservoir near active construction during that work. The closed Basalt Campground would be used as a temporary camping/housing area for construction workers.

Final design of the dam raise would include the development of a construction schedule that times the completion work in the direct path of potential flood flows or on infrastructure specifically designed to direct flood flows to occur in periods of the year when rain is unlikely and reservoir levels are lower. In addition, the contractor would be required to develop a health and safety plan (HASP) that includes a response plan to flood forecasts that would require the suspension of construction activities and the movement of construction equipment to higher ground.

During the period of construction (2025 through 2032), it is anticipated that 130 workers would be on-site during the day shift and 87 workers on-site during the night shift. This is in addition to the number of worker evaluated under the B.F. Sisk Dam SOD Modification Project EIS/EIR. Since all existing project features at B.F. Sisk Dam potentially affected by the Dam Raise would be replaced in kind under Alternative 3, postconstruction maintenance activities would not increase the frequency of maintenance workers being on-site compared to existing maintenance activities at B.F. Sisk Dam. The Gianelli Pumping Plant would not be expanded or modified under Alternative 3 and therefore would not require increased operations staff on-site.

The construction work would be performed 24 hours per day, 7 days per week, 12 months per year, but work would not occur on certain holidays as required by federal law. The 24-hour workday would consist of two 10-hour work shifts, with a half hour for lunch each shift, plus a 3-hour maintenance period. Blasting operations at Basalt Hill would be limited to between 6:00 a.m. and 6:00 p.m. The overall duration of construction (daily, weekly and annually) evaluated in this EIR/SEIS would not extend beyond the period evaluated in the B.F. Sisk Dam SOD Modification Project EIS/EIR. Table below summarizes the construction action included under Alternative 1 and Alternative 3:

	Alternative 1 ¹	Alternative 3 ²
Construction Schedule	8 to 12 years starting in 2021 ending in 2032; 24 hours per day	8 years starting in 2025 ending in 2032; 24 hours per day
Construction Workers	46 - day shift; 30 - night shift	Dam Raise Action: 130 - day shift; 87 - night shift SR 152 Modification: 130 - day shift; 20 - night shift
Daily Construction Deliveries	59	240

Notes:

¹ The No Project/No Action Alternative (Alternative 1) includes implementation of the B.F. Sisk Safety of Dams Modification Project

² Construction workers and deliveries identified for the Dam Raise Alternative (Alternative 3) are additive above the numbers reported for Alternative 1

Construction of State Route 152 Modification. Construction of the SR 152 modification would be completed within the construction window identified in the B.F. Sisk Dam SOD Modification Project EIS/EIR and the dam raise construction activities described above. SR 152 modification would include raising the embankment by 11 feet and adding slope protection of the East Overlook Parking Area located approximately half a mile southeast from the SR 152 site.

Construction of the SR 152 modification would be sequenced to occur in eight steps: (1) rough excavation and site grading; (2) mobilization and assembly of the barge system to move material from the borrow sites to the construction site and the conveyor system to move material from the

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San Luis Reservoir side to the Cottonwood Bay side; (3) stockpiling rip rap and fill material on San Luis Reservoir and Cottonwood Bay side; (4) placement of riprap on both sides slopes in wet; (5) placement of additional filter material and riprap on both side slopes in dry; (6) placement of backfill and riprap armor to raise the embankment height on the San Luis Reservoir side; (7) placement of backfill and riprap armor to raise embankment height on the Cottonwood Bay side; (8) construction of the new roadway pavement.

Construction of the steps 1 through 5 can occur without lane closures along SR 152. During construction of steps 6 through 8, traffic would be reduced to two-way traffic using two of the existing four lanes along SR 152. Traffic reductions from lane closure would occur for approximately 8–12 months during the scheduled period of construction.

Items in the staging areas would include trailers, equipment, and stockpiled materials. Construction staging would primarily occur along the embankment slopes and on the Cottonwood Bay side off SR 152. Construction on the Cottonwood Bay side of SR 152 would occur in the dry by dewatering a portion of the bay. Dewatering of the Cottonwood Bay would be facilitated by plugging the 24- and 66-inch existing submerged pipes and installing a cofferdam. An estimated 1.1 million cubic yard of fill materials for SR 152 embankment modification would be sourced from two on-site borrow sites—Basalt Hill and Borrow Area 6—and stockpiled on the embankment slopes and roadway. Stockpiling of materials could result in minor changes to drainage patterns during the period of construction. Large deliveries or waste material transports off-site per day could be expected, along with the transport and disposal of material to local landfills and the regular commuting of construction personnel. Approximately 87,000 cubic yards of waste is expected to be generated from removal of existing riprap and filter material at the site. Roadway pavement material would be sourced from a local asphalt plant.

Aside from areas dedicated to construction staging and transportation, all remaining available space along the embankment slopes would be needed for stockpiling materials. These areas around SR 152 would be used as a staging area for the full duration of construction. These areas would be returned to preconstruction condition after the project is completed. Equipment used to construct the alternative is included in table below:

27 Cranes	4 Pavers	9 Tractors/Loaders/Backhoes	18 Plate Compactors
8 Crawler Tractors	9 Rollers	9 Dump Truck	1 Rollers
8 Excavators	5 Rough Terrain Forklifts	2 Flatbed Truck	1 Pumps
4 Graders	5 Rubber Tired Loaders	7 Haul Truck	2 Welders
5 Off-Highway Trucks	1 Skid Steer Loaders	2 Concrete/Industrial Saws	7 Generators
9 Water Truck	16 Barges (8 aggregate, 4 conveyor, 4 crane)		

Recreational activities would be suspended for safety reasons for the full duration of construction schedule at Basalt Point. Recreational use for boating on the reservoir would be supported through the use of the boat launch at Dinosaur Point but would be limited to areas away from B.F. Sisk Dam and SR 152 for the full construction schedule.

Final design of the SR 152 embankment modifications will include the development of a construction schedule that times the completion work in the direct path of potential flood flows or on infrastructure specifically designed to direct flood flows to occur in periods of the year when rain

is unlikely and reservoir levels are lower. In addition, the contractor would be required to develop a HASP as an environmental commitment that includes a response plan to flood forecasts that would require the suspension of construction activities and the movement of construction equipment to higher ground.

Construction is expected to last approximately 18–24 months from summer 2027. The construction duration is based on approximately 75–130 workers on-site. Work would be performed from 6:00 a.m. to 6:00 p.m., 7 days per week, 12 months per year. A smaller crew of 10–20 people would be active at the site performing equipment maintenance, repair activities, crushing operations at Basalt Hill, and borrow operations in Borrow Area 6 from 6:00 p.m. to 6:00 a.m.

2.4.3.2 Operation of Dam Raise Alternative

SLDMWA and its member agencies, Reclamation, and DWR coordinated on the identification of several operational configurations of the Dam Raise Alternative. Those subalternatives have been further configured as “bookends” to capture the range of stakeholder-requested configurations and cover the high- and low-end of potential environmental effects. These effects include potential growth-inducing impacts from increases in M&I water supply reliability and potential environmental impacts to aquatic resources in the Delta resulting from changes in water deliveries conveyed through the Delta.

Given the importance of effective coordinated operations of the CVP and SWP, the existence and/or extent of any SWP water supply reduction from subalternatives will be reassessed prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the subalternatives, affect SWP operations. SLDMWA, through these reassessments and ongoing coordination of operations between Reclamation and DWR, shall confirm at these intervals that any SWP water supply reduction resulting from the subalternatives’ construction or operation is less than significant. Any adaptive management measures or restrictions imposed on SLDMWA, Reclamation, or the CVP through permits or other regulatory approvals issued for the subalternatives’ operations will be coordinated with DWR through the Coordinated Operation Agreement (COA) that includes water rights and obligations of and between Reclamation and DWR.

CVP-Only Storage Subalternative. The additional storage in San Luis Reservoir would be Reclamation-owned CVP storage and would be operated consistent with current CVP operations. The new reservoir capacity would be used to store CVP Project water, carried-over water,⁸ and non-Project water.⁹ The maximum quantity of carried-over water would be the same as recent operations under the current rescheduling guidelines. Based on a review of historical rescheduling quantities and the most recent annual rescheduling guidelines (Reclamation 2020), an upper quantity of 180

⁸ Carried-over water refers to Rescheduled Water. Rescheduled Water is defined as allocated CVP water carried over to subsequent water year(s) by the water contractor pursuant to Reclamation’s then-current Rescheduling Guidelines. The water contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is “spilled” (converted to CVP supplies for following year’s allocation).

⁹ Non-Project water includes transfer water acquired by existing South-of-Delta CVP contractors or other non-Project water currently stored in San Luis Reservoir such as conserved water. The water contractors can store non-Project water in San Luis Reservoir under a Warren Act Contract. Similar to carried-over water, the contractors take on a risk of potentially losing non-Project water if San Luis Reservoir fills the next year and that supply is “spilled” (converted to CVP supplies for following year’s allocation).

TAF was used to estimate the aggregate total of rescheduled water in high-allocation water years. As an operational bookend, this upper limit was allocated 98% to agricultural and 2% to M&I South-of-Delta CVP water contractors.

Storage priority will follow current rescheduling guidelines with carried-over water and non-Project water being subject to spill consistent with current operating criteria.

CVP/SWP Split Storage Subalternative. The additional storage would be split between CVP and SWP consistent with the current share of the overall reservoir storage. The additional storage would follow current operating criteria and the storage priority will follow the current rescheduling guidelines.

Investor-Directed Storage Subalternative. Under this subalternative's four operational configurations, the use of the proposed storage (expanded capacity) would be primarily investor-directed. Remaining expanded capacity not in use by the investors, at any given time, would be available to Reclamation to store CVP Project water.

Investors could store allocated CVP Project water, carried-over water, and non-Project water in the expanded storage. Investors could forgo delivery of their allocated CVP Project water for delivery in subsequent year(s). This unused CVP Project water would be carried over to subsequent year(s) and continue to be stored in San Luis Reservoir until investor requests delivery of the water without the risk of "spill". Carried-over water in the expanded capacity would be subject to evaporation at the same rate as CVP Project water stored in San Luis Reservoir. Investors would have first priority in storing carried-over water and non-Project water in the expanded storage without the risk of "spill."

Configuration A – The upper target quantity of carried-over water in San Luis Reservoir would be 180 TAF. The delivery of the carried-over water and CVP Project water was allocated proportionally among the SLDMWA investor group at 78% to agriculture, 7% to M&I, and 15% federal refuge water contractors.

Configuration B – The upper target quantity of carried-over water in San Luis Reservoir would be 180 TAF. The delivery of the carried-over water and CVP Project water was allocated proportionally among the SLDMWA investor group at 90% to M&I and 10% to agriculture water contractors.

Configuration C – The upper target quantity of carried over water in San Luis Reservoir would be 310 TAF. The delivery of the carried-over water and CVP Project water was allocated proportionally among the SLDMWA investor group at 78% to agriculture, 7% to M&I, and 15% federal refuge water contractors.

Configuration D – The upper target quantity of carried over water in San Luis Reservoir would be 310 TAF. The delivery of the carried-over water and CVP Project water was allocated proportionally among the SLDMWA investor group at 90% to M&I and 10% to agriculture water contractors.

2.5 Environmentally Superior Alternative/Environmentally Preferable Alternative

The Draft EIR/SEIS and this Final EIR/SEIS provides a substantial portion of the environmental information for SLDMWA to determine the environmentally superior alternative under CEQA. In the Draft EIR/SEIS, SLDMWA, as CEQA lead agency, identified the subalternatives under Alternative 3 that provide additional refuge water supply benefits as the environmentally superior alternative. SLDMWA will consider feedback during the public review phase of the Draft EIR/SEIS on the environmental benefits and impacts of each alternative along with other information in light of the record as a whole when considering whether to approve the proposed project or an alternative.

Pursuant to Section 1505.2(a)(2) of the CEQ Regulations, Reclamation will identify the environmentally preferable alternative in the ROD.

2.6 Proposed Project/Preferred Alternative

Under CEQA, the identification of the proposed project is independent of the identification of the environmentally superior alternative, although the identification of both will be based on the information presented in the Draft EIR/SEIS and this Final EIR/SEIS. SLDMWA has identified Alternative 3 as the proposed project.

Consistent with 40 CFR Part 1502.14, this Final EIR/SEIS identifies a preferred alternative (also known as the proposed project for CEQA) for implementation. The identification of the preferred alternative is independent of the identification of the environmentally preferable alternative, which will be identified in the ROD as required. Reclamation, as NEPA lead agency, has identified Alternative 3 as the preferred alternative.

The proposed project/preferred alternative identified in this Final EIR/SEIS is based on the information presented in the Draft EIR/SEIS, along with revisions made in response to comments received during public review phase on Draft EIR/SEIS. After the Final EIR/SEIS is published, SLDMWA and Reclamation will consider these analyses along with other information in light of the record as a whole, to consider whether to implement the proposed project/preferred alternative.

2.7 Impact Summary

This section summarizes significant impacts generated by the action alternatives and the mitigation measures identified to address those impacts. These significant impacts and mitigation measures are listed in Table 2-1 and are described in further detail in Chapter 4 of the Draft EIR/SEIS, as modified by errata in Chapter 4 of this Final EIR/SEIS.

Table 2-1. Significance Effect Analysis Summary

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Water Quality					
Cause a violation of existing water quality standards or waste discharge requirements.	Evaluation of how the alternatives could potentially generate violations of water quality standards or waste discharge requirements during construction or operation of new facilities.	1	LTS	--	Section 4.1.3
		2	LTS	None	Section 4.1.4
		3	LTS	None	Section 4.1.5
Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site or provide substantial additional sources of polluted runoff.	Evaluation of how construction or operation of the alternatives could alter the existing drainage pattern and create or contribute runoff water when compared to No Project/No Action Alternative conditions.	1	LTS	--	Section 4.1.3
		2	NI	None	Section 4.1.4
		3	LTS	None	Section 4.1.5
In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Evaluation the risk of how construction or operation of the alternatives could release pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	1	NI	--	Section 4.1.3
		2	NI	None	Section 4.1.4
		3	NI		Section 4.1.5
Conflict with or obstruct implementation of a water quality control plan.	Evaluation of whether construction or operation of the alternatives could conflict with or obstruct water quality control plan objectives.	1	LTS	--	Section 4.1.3
		2	LTS	None	Section 4.1.4
		3	LTS	None	Section 4.1.5
Surface Water Supply					
Construction impacts on water supply would be considered significant if the alternative would substantially reduce the annual supply of water available to CVP, SWP, refuges, or other water users during construction.	Evaluation of how construction of the alternatives could change CVP and SWP water supply deliveries.	1	NI	--	Section 4.2.3
		2	NI	None	Section 4.2.4
		3	NI	None	Section 4.2.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Surface Water Supply (cont.)					
Operational impacts on water supply would be considered significant if the alternative would substantially reduce the annual supply of water available to CVP, SWP, refuges, or other water users during the long-term operation of the alternative.	Evaluation of how operation of the alternatives could change CVP and SWP water supply deliveries.	1	NI	--	Section 4.2.3
		2	CVP Only Storage: South-of-Delta SWP - LTS South-of-Delta CVP - SU	None	Section 4.2.4
		3	CVP Only Storage: South-of-Delta SWP - LTS South-of-Delta CVP - B	None	Section 4.2.5
			CVP/SWP Split Storage: South-of-Delta SWP - LTS South-of-Delta CVP - B	None	Section 4.2.5
			Investor-Directed Storage: South-of-Delta SWP - LTS South-of-Delta CVP - B	None	Section 4.2.5

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Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Air Quality					
Conflict with or obstruct implementation of the applicable air quality plan	Estimates of potential emissions from the short-term construction generated and long-term operations and maintenance of the alternatives were developed and compared to significance thresholds established by the respective air district where the alternative would be implemented.	1	S, LTS	AQ-1, AQ-2, AQ-3 ¹ , AQ-5	Section 4.3.3
		2	NI	None	Section 4.3.4
		3	S, SU	AQ-1 ² , AQ-2 ² , AQ-3, AQ-4, AQ-5	Section 4.3.5; Appendix F of the Draft EIR/SEIS
Expose sensitive receptors to substantial pollutant concentrations	Each alternative's potential to generate toxic air contaminants (TACs) was measured and then evaluated considering the distance to the nearest sensitive receptor.	1	LTS	--	Section 4.3.3
		2	NI	None	Section 4.3.4
		3	LTS	None	Section 4.3.5; Appendix F of the Draft EIR/SEIS
Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people	Each alternative's potential to generate emissions, including objectionable odors, was measured and then evaluated considering the distance to the nearest sensitive receptor.	1	LTS	--	Section 4.3.3
		2	NI	None	Section 4.3.4
		3	NI	None	Section 4.3.5; Appendix F of the Draft EIR/SEIS
Cause temporary and short-term construction-related emissions of criteria pollutants or precursors that would exceed the general conformity <i>de minimis</i> thresholds.	For NEPA purposes, estimates of potential emissions from the short-term construction of the alternatives were developed and compared to the general conformity <i>de minimis</i> threshold.	1	NI	--	Section 4.3.3
		2	NI	None	Section 4.3.4
		3	General Conformity Determination Required	None	Section 4.3.5; Appendix F of the Draft EIR/SEIS

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Greenhouse Gases					
Generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment.	Estimates of potential emissions from the short-term construction generated and long-term operations and maintenance of the alternatives were developed and compared to project thresholds established by DWR.	1	S, LTS	GHG-1 ¹	Section 4.4.3
		2	NI	None	Section 4.4.4
		3	S, LTS	AQ-1 ² , AQ-2 ² , GHG-1, GHG-2	Section 4.4.5; Appendix F of the Draft EIR/SEIS
Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Comparison of all proposed alternative emissions estimates against applicable plans, policies, or regulations adopted to reduce greenhouse gas emissions.	1	S, LTS	--	Section 4.4.3
		2	NI	None	Section 4.4.4
		3	S, LTS	AQ-1 ² , AQ-2 ² , GHG-1, GHG-2	Section 4.4.5; Appendix F of the Draft EIR/SEIS
Visual Resources					
Have a substantial adverse effect on a scenic vista).	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could detract from viewing experience at scenic vistas.	1	S, LTS	VIS-1 ¹	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	LTS	None	Section 4.5.5
Substantially damage scenic resources within a state scenic highway corridor.	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could detract from viewing experience along scenic highway corridors.	1	S, LTS	VIS-1 ¹	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	S, LTS	VIS-2	Section 4.5.5

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Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Visual Resources (cont.)					
Substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable regulations governing scenic quality.	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could degrade the existing visual character or quality of the site and its surroundings.	1	S, LTS	VIS-1 ¹	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	LTS	None	Section 4.5.5
Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could introduce new light or glare sources.	1	S, LTS	VIS-1 ¹	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	S, LTS	VIS-1	Section 4.5.5
Noise and Vibration					
Expose sensitive receptors to noise levels in excess of standards established in the local general plan or noise ordinance.	Comparison of predicted noise levels during construction and operation of the alternatives to established general plan and noise ordinance standards and to existing noise levels in the study area.	1	S, SU	NOI-1, NOI-2, NOI-3 ¹	Section 4.6.3
		2	NI	None	Section 4.6.4
		3- Dam Raise	S, SU	None	Section 4.6.5
		3- SR 152 Modifications	LTS	None	Section 4.6.5
		3- Operation	NI	None	Section 4.6.5
Expose sensitive receptors to excessive ground-borne vibration or ground-borne noise.	Evaluation of predicted ground-borne vibration levels during construction and operation of the alternatives at the nearest sensitive receptors (significance threshold of 0.3 inches/second).	1	LTS	--	Section 4.6.3
		2	NI	None	Section 4.6.4
		3- Dam Raise	LTS	None	Section 4.6.5
		3- SR 152 Modifications	LTS	None	Section 4.6.5
		3- Operation	NI	None	Section 4.6.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Noise and Vibration (cont.)					
Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Comparison of predicted noise levels during construction of the alternatives to existing noise levels in the study area.	1	S, SU	NOI-1, NOI-2, NOI-3 ¹	Section 4.6.3
		2	NI	None	Section 4.6.4
		3- Dam Raise	S, SU	None	Section 4.6.5
		3- SR 152 Modifications	LTS	None	Section 4.6.5
		3- Operation	NI	None	Section 4.6.5
Operational sources located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport could expose people residing or working in the study area to excessive noise levels.	Consideration of the alternative's location in relationship to an airport and its consistency with that airport's land use plans.	1	LTS	--	Section 4.6.3
		2	NI	None	Section 4.6.4
		3- Dam Raise	LTS	None	Section 4.6.5
		3- SR 152 Modifications	NI	None	Section 4.6.5
		3- Operation	NI	None	Section 4.6.5
Traffic and Transportation					
Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities	Evaluation of whether construction or operation of the alternative would generate traffic that would conflict with any goals or objectives of a program, plan, ordinance or policy addressing the circulation system.	1	LTS	--	Section 4.7.3
		2	LTS	None	Section 4.7.4
		3	LTS	None	Section 4.7.5
Cause a substantial increase in traffic in relation to the existing traffic load and capacity of the street system	Comparison of the alternative's contribution to local traffic conditions during and after construction based on level of service (LOS) changes.	1	LTS	--	Section 4.7.3
		2	LTS	None	Section 4.7.4
		3	S, SU	None	Section 4.7.5
Substantially increase traffic hazards due to a geometric design feature or incompatible uses.	Consideration of the alternative's potential to alter the transportation network that would increase traffic hazards.	1	LTS	TR-1 ¹	Section 4.7.3
		2	LTS	None	Section 4.7.4
		3	S, LTS	TR-1	Section 4.7.5

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Traffic and Transportation (cont.)					
Result in inadequate emergency access.	Evaluation of whether construction activities could impede emergency response vehicle access on site or along study area roadways.	1	LTS	TR-1 ¹	Section 4.7.3
		2	LTS	None	Section 4.7.4
		3	S, LTS	TR-1	Section 4.7.5
Hazards and Hazardous Materials					
During construction activities, the transport, use or disposal of hazardous materials could increase the risk of exposure from hazardous materials to the public and construction workers.	Evaluation of the of the types of waste materials generated by the alternatives onsite, the transportation routes to any disposal sites and the need for interaction with or generation of hazardous materials as a part of operation and maintenance of the alternatives.	1	LTS	None	Section 4.8.3
		2	NI	None	Section 4.8.4
		3	LTS	None	Section 4.8.5
During construction activities, there is potential to encounter contaminated soil and/or groundwater, which could result in an accidental release of hazardous materials and pose a threat to the public and the environment.	Evaluation of the degree to which construction activities could occur on or near an active remediation site and whether implementation of the alternative would interfere with that site.	1	S, LTS	HAZ-1 ¹	Section 4.8.3
		2	NI	None	Section 4.8.4
		3	LTS	None	Section 4.8.4.5
Construction activities at San Luis Reservoir could conflict with seaplane maneuvers on San Luis Reservoir and operations at the San Luis Reservoir Seaplane Base, resulting in safety hazards for pilots and people working and residing in the area.	Evaluation of the degree to which construction activities could temporarily reduce the use of some portions of San Luis Reservoir from use by the seaplane base and whether pilots would be aware of the temporary closures.	1	S, LTS	HAZ-2, HAZ-3 ¹	Section 4.8.3
		2	NI	None	Section 4.8.4
		3	LTS	None	Section 4.8.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Hazards and Hazardous Materials (cont.)					
During construction activities use of Basalt Road and SR 152 for site access could temporarily interfere with an emergency response plan or emergency evacuation plan for the State Responsibility Area.	An evaluation of the degree to which construction site access via SR 152 could interfere with emergency response and evacuation uses on SR 152.	1	LTS	TR-1 ¹	Section 4.8.3
		2	NI	None	Section 4.8.4
		3	S, LTS	TR-1	Section 4.8.5
The use of mechanical equipment during construction could increase the risk of wildfire within the vicinity of the study area.	An evaluation of the degree to which mechanical equipment would be used during construction activities in wildfire risk areas around San Luis Reservoir based on the location of the alternative in relation to State Responsibility Areas or lands classified as very high fire hazard severity zones.	1	LTS	HAZ-4 ¹	Section 4.8.3
		2	NI	None	Section 4.8.4
		3	S, LTS	HAZ-1 ⁴	Section 4.8.5
Aquatic Resources					
Have a substantial adverse effect, either directly or through habitat modifications, on any aquatic species identified as an endangered, threatened, candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), or USFWS.	Evaluate how construction of new infrastructure or later through operation of the alternatives could potentially impact any aquatic species identified as a candidate, sensitive, or special status species through direct effects or through habitat modification.	1	NI	None	Section 4.9.3
		2	LTS	None	Section 4.9.4
		3	LTS	None	Section 4.9.5
Interfere substantially with the movement of any native resident or migratory fish.	Evaluate how implementation of the alternatives could impact the movement of native resident or migratory fish.	1	NI	None	Section 4.9.3
		2	LTS	None	Section 4.9.4
		3	LTS	None	Section 4.9.5

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Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Terrestrial Resources					
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW, NMFS, or USFWS.	Evaluate how construction of new infrastructure or later through operation of the alternatives could potentially impact any species identified as a candidate, sensitive, or special status species through direct effects or through habitat modification.	1	S, LTS	TERR-1 through TERR-16 ¹	Section 4.10.3
		2	NI	None	Section 4.10.4
		3	Construction - S, LTS Operation - NI	TERR-1,2,3,8,10,11,12,14; TERR-15: Species-specific mitigation measures; TERR-4,5,6,7,9 and 13 ²	Section 4.10.5
Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW, NMFS, or USFWS.	Evaluate how implementation of the alternative through the placement of equipment or development of new infrastructure during construction or through changes in water flow or availability during operation, could impact any riparian habitat or other sensitive natural community.	1	S, LTS	TERR-16 ¹	Section 4.10.3
		2	NI	None	Section 4.10.4
		3	Construction - S, LTS Operation - NI	TERR-16: Jurisdictional wetlands or waters, and streambeds and streambank mitigation	Section 4.10.5
Have a substantial adverse effect on federally or state protected wetlands (including, but not limited to, marsh, vernal pool, coast, etc.) through direct removal, filling, hydrological interruption, or other means.	Evaluate how implementation of the alternative could through the placement of equipment or development of new infrastructure during construction or over the long term with operations could impact any federally or state protected wetlands.	1	S, LTS	TERR-16 ¹	Section 4.10.3
		2	NI	None	Section 4.10.4
		3	Construction - S, LTS Operation - NI	TERR-16: Jurisdictional wetlands or waters, and streambeds and streambank mitigation	Section 4.10.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Terrestrial Resources (cont.)					
Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Evaluate how implementation of the alternative could impact wildlife corridors or interfere with a wildlife species use of or a wildlife corridor.	1	LTS	--	Section 4.10.3
		2	NI	None	Section 4.10.4
		3	Construction – S, LTS Operation – S, LTS	None	Section 4.10.5
Conflict with any local policies or ordinances protecting biological resources, or adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state conservation plan.	Evaluate how implementation of the alternative could conflict with policies or ordinances protecting terrestrial resources such as a tree preservation policy or ordinance, HCPs or Natural Community Conservation Plan.	1	NI	--	Section 4.10.3
		2	NI	None	Section 4.10.4
		3	S, LTS	TERR-1,2,3,8,10,11,12,14; TERR-15: Species-specific mitigation measures; TERR-16: Jurisdictional wetlands or waters, and streambeds and streambank mitigation TERR-4,5,6,7,9 and 13 ²	Section 4.10.5
Recreation					
Project construction could substantially reduce recreational use trails.	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could reduce recreational trail use with consideration of the capacity of other trails available within the San Luis State Recreation Area (SRA) to offset this effect.	1	LTS	--	Section 4.11.3
		2	NI	None	Section 4.11.4
		3	LTS	None	Section 4.11.5

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Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Recreation (cont.)					
Project construction could result in temporary closure to recreation facilities, resulting in a substantial loss of recreation opportunities.	Evaluation of the degree to which construction activities and long-term placement of new infrastructure could reduce recreation opportunities through the closure of available recreation facilities within the San Luis SRA.	1	S, LTS	REC-1 ¹	Section 4.11.3
		2	NI	None	Section 4.11.4
		3	S, SU	REC-1 ¹	Section 4.11.5
Project construction could displace visitors and substantially contribute to overcrowded conditions at other local and regional recreation sites.	Evaluation of the average visitor numbers at facilities that would have reduced access or closures due to project construction compared to user rates and any unused capacity at other regional facilities.	1	LTS	--	Section 4.11.3
		2	NI	None	Section 4.11.4
		3	LTS	None	Section 4.11.5
Operational changes to water levels in recreational water bodies could affect recreational uses.	Evaluation of the degree to which operational changes could affect recreational uses at the reservoir, such as reduced boating access and trail closure through the review of CalSim II model results for San Luis Reservoir storage and elevation changes.	1	LTS	--	Section 4.11.3
		2	NI	None	Section 4.11.4
		3	S, LTS	REC-1, REC-2	Section 4.11.5
Cultural Resources					
Project construction and operation could result in adverse effects to historic properties and/or substantial adverse changes to historical resources, unique archaeological resources, or tribal cultural resources or result in the disturbance of human remains.	Evaluation of how implementation of the alternative would adversely affect or change known or previously undiscovered significant cultural resources.	1	S, LTS	CR-1 ¹	Section 4.12.3
		2	NI	--	Section 4.12.4
		3	S, SU	CR-1, CR-2, CR-3	Section 4.12.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Geology, Seismicity, and Soils					
Construction activities could directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death, through rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure; and landslides.	Evaluation of the degree to which the proposed location of construction activities could influence earthquake activity such as the rupture of any known active faults through the review of fault mapping, seismic risk data, liquefaction risk, and landslide mapping data.	1	LTS	--	Section 4.13.3
		2	NI	None	Section 4.13.4
		3	LTS	None	Section 4.13.5
Construction activities on unstable soils could result in the risk of loss, injury, or death as a result of liquefaction or landslides.	Evaluation of the degree to which the proposed location of construction activities could expose workers to the risk of loss, injury, or death in the case of an earthquake or strong ground movement through review of available unstable soil mapping data.	1	LTS	--	Section 4.13.3
		2	NI	None	Section 4.13.4
		3	LTS	None	Section 4.13.5
Construction activities could take place on expansive soils creating a substantial risk to life or property.	Evaluation of the degree to which construction activities would result in changes in moisture content through review of available expansive soil mapping data.	1	LTS	--	Section 4.13.3
		2	NI	None	Section 4.13.4
		3	LTS	None	Section 4.13.5
Maintenance activities during operations could expose people or structures to adverse effects related to the rupture of a known earthquake fault.	Evaluation of the degree to which people or structures would be exposed to adverse effects related to a seismic event during onsite operations through the review of fault mapping data.	1	B	None	Section 4.13.3
		2	NI	None	Section 4.13.4
		3	B	None	Section 4.13.5

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Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Geology, Seismicity, and Soils (cont.)					
Operations could result in long term impacts to geology, soils, or mineral resources.	Evaluation of the degree to which operations could affect the availability of a known mineral resource of value to the region or state, or cause the loss of a locally important resource recovery site through review of available geology, soils, or mineral resources mapping data.	1	NI	--	Section 4.13.3
		2	NI	None	Section 4.13.4
		3	NI	None	Section 4.13.5
Construction activities could result in the loss of availability of a known mineral resource of regional or local importance.	Evaluation of the degree to which construction activities could remove a known mineral resource of regional or local importance through review of available mineral resources mapping data.	1	LTS	--	Section 4.13.3
		2	LTS	None	Section 4.13.4
		3	LTS	None	Section 4.13.5
Construction activities could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Evaluation of the potential for construction activities to impact known or previously undiscovered paleontological resources or unique geologic features through the review of literature and previously completed survey reports to determine the potential for impacts to known resources and estimate the potential for impacts to previously undiscovered resources.	2	NI	None	Section 4.13.4
		3	S, LTS	GEO-1	Section 4.13.5

Potential Impact	Assessment Methodology	Alt	Significance Determination (W/O Mitigation, W Mitigation) ³	Mitigation	Evaluation Support
Public Utilities, Services, and Power					
Construction activities would generate solid waste, the disposal of which could exceed the capacity of landfills designated to accommodate the project's solid waste disposal needs.	Evaluation of each alternative's potential to generate solid waste and compare those numbers against the remaining capacity at the local landfill.	1	LTS	--	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	LTS	None	Section 4.5.5
Adverse impacts associated with the use and/or depletion of local or regional energy supplies.	Evaluation of each alternative's potential power demands on the local power supply and compare those demands against the capacity of local medium voltage distribution lines.	1	LTS	--	Section 4.5.3
		2	LTS	None	Section 4.5.4
		3	LTS	None	Section 4.5.5

Notes:

¹ Indicates Mitigation Measures implemented under the B.F. Sisk Dam SOD Modification Project. Table 2-1 in the Draft EIR/SEIS provides a summary of each mitigation measure and Section B.1.1.1 in Appendix B of the Draft EIR/SEIS includes full mitigation measure descriptions.

² Indicates measures carried forward from the B.F. Sisk Dam SOD Modification Project and implemented under Alternative 3. Description of measures provided in Section 4.15.

³ Column 4 presents significance determinations without implementation of proposed Mitigation Measure and significance determination with implementation of proposed Mitigation Measure. For example. Conflict with or obstruct implementation of the applicable air quality plan under Alternative 1 is presented as S, LTS. Therefore, Alternative 1 would cause significant impacts that would mitigate with the implementation of AQ1, AQ-2 and AQ-3. With the implementation of the Mitigation Measures, this impact would be less than significant.

Key: B – Beneficial; CDFW – California Department of Fish and Wildlife; CRHR – California Register of Historical Resources; CVP – Central Valley Project; LTS – Less than Significant; NI – No Impact; NRHP – National Register of Historic Places; S – Significant; SWP – State Water Project; SU – Significant Unavoidable

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Chapter 3 Commenters, Comments, and Responses

This chapter contains responses to comments received on the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft EIR/SEIS, including comments received during the online public meeting. The comments are included in Appendix A of this Final EIR/SEIS.

Table 3-1 presents commenters and associated agencies or groups that submitted comments on the Draft EIR/SEIS.

Table 3-1. List of Commenters

Commenter	Agency/Group	Date	Comment ID
Federal, State, and Local Agencies			
Jean Prijatel	U.S. Environmental Protection Agency	9/25/20	A
Justin Fredrickson	California Farm Bureau Federation	9/28/20	B
Jason Phillips	Friant Water Authority	9/28/20	C
Deanna Sereno	Contra Costa Water District	9/28/20	D
Julie A. Vance	California Department of Fish and Wildlife	9/28/20	E
Michael Prowatzke	Western Area Power Administration	9/28/20	F
Jennifer Pierre	State Water Contractors	9/28/20	G
Ted Craddock	California Department of Water Resources	9/28/20	H
Individuals			
Dennis Brazil	Former Mayor of City of Gustine	8/13/20	I
Kevin Olds	Landowner in Dos Palos, CA	8/13/20	J
Scott M. Steward	Resident	8/13/20	K
Anonymous	Public Meeting Attendee	9/3/20	L

Responses to comments are presented in the following sections.

3.1 Master Responses

The Lead Agencies have developed master responses to issues and questions that were raised in multiple comments on the Draft EIR/SEIS. These master responses are referred to by number and title, where applicable, in the responses to comment.

3.1.1 Master Response 1: NEPA Connected Action and CEQA Subsequent EIR

Some comments asked questions about the B.F. Sisk Dam Raise and Reservoir Expansion Project being considered a connected action to the B.F. Sisk SOD Modification Project and the development of the EIR/SEIS as a supplemental EIS and subsequent EIR to the B.F. Sisk SOD Modification Project EIS/EIR.

NEPA Section 1508.25(a) defines connected action as “closely related and therefore should be discussed in the same impact statement”. Actions are connected if they:

- (i) Automatically trigger other actions which may require environmental impact statements.
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.”

The B.F. Sisk Dam Raise and Reservoir Expansion Project is considered to have elements of independent utility from the B.F. Sisk SOD Modification Project, however, feasibility or justification of the B.F. Sisk Dam Raise and Reservoir Expansion Project is dependent on the construction actions completed as part of the B.F. Sisk SOD Modification Project. Completion of both projects on the same construction schedule has additional cost benefits including reductions to mobilization and demobilization costs, additional demobilization savings specific to replacement of the roadway along the dam crest, post construction activities (erosion mitigation measures, contractor laydown and site restoration, etc.) and materials processing facilities. Without completion of both projects on the same construction schedule, the B.F. Sisk Dam Raise and Reservoir Expansion Project would require a major design modification to accommodate additional work including excavation of the dam embankment to reach the dam core. Given the need for completion of multiple construction actions twice that would otherwise be combined, construction of these two projects in isolation would increase the construction period to approximately 20 years. The longer construction period would also result in greater environmental impacts, specifically to water supply, terrestrial, recreation, and visual resources. Implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project alongside the B.F. Sisk SOD Modification Project as a connected action provides lower environmental impacts, shorter construction period, and is more likely to be feasible. Therefore, the B.F. Sisk Dam Raise and Reservoir Expansion Project is a NEPA connected action that depends on implementation of the B.F. Sisk Dam SOD Modification Project for its justification.

As the B.F. Sisk Dam Raise and Reservoir Expansion Project is dependent on the B.F. Sisk Dam SOD Modification Project, further environmental review was required to evaluate the B.F. Sisk Dam Raise and Reservoir Expansion Project’s potential for new or substantially more severe environmental effects not previously identified in the 2019 B.F. Sisk Dam SOD Modification Project EIS/EIR. The B.F. Sisk Dam Raise and Reservoir Expansion Project EIR/SEIS was prepared as a subsequent EIR pursuant to CEQA under Public Resources Code section 21166 and CEQA Guidelines section 15162(a)(1). CEQA Guidelines specify that a subsequent EIR shall be prepared for a project if a lead agency determines “substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.”

Additional questions were raised over whether SLDMWA should be the CEQA reviewing agency for the B.F. Sisk Dam Raise and Reservoir Expansion Project or had authority to implement it as a connected action. SLDMWA has responsibility for CEQA review of the B.F. Sisk Dam Raise and Reservoir Expansion Project under Public Resources Code section 21166 and CEQA Guidelines Section 15162 because it is the public agency evaluating whether to take discretionary actions to fund or otherwise carry out proposed modifications to the approved project.

Although DWR was the lead agency for the B.F. Sisk Dam SOD Modification Project, DWR is not proposing to undertake and is not directly involved in the evaluation of or potential implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project. The B.F. Sisk SOD Modification Project was approved, and as set forth in CEQA Guidelines section 15162(c), DWR's role as the CEQA lead agency is completed. SLDMWA is carrying out its CEQA duties under Public Resources Code section 21166 and CEQA Guidelines section 15162 to evaluate the potential effects of proposed modifications to the approved project.

3.2 Federal, State, and Local Agencies

3.2.1 Comment Letter A, Jean Prijatel, U.S. Environmental Protection Agency

Comment A-1

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. In this document, the Bureau of Reclamation, in conjunction with the San Luis and Delta-Mendota Water Authority, proposes to improve water supply reliability for federal and state contractors. In December 2019, Reclamation signed a Record of Decision detailing the agency's decision to implement the Crest Raise Alternative which would raise the dam twelve feet for seismic safety reasons. Reclamation is evaluating the current project as a connected action to the B.F. Sisk Dam Safety Dams Modification Project to create additional project benefits by increasing storage within San Luis Reservoir through operational and construction alternatives.

The construction alternative evaluated in this Supplemental Draft EIS was previously evaluated as an alternative in the San Luis Low Point Improvement Project Draft EIS released in July 2019. This project is still under development and no Preferred Alternative has been selected. We understand there is a lot of implementation of the remaining permits to successfully mitigate cumulative air, water, and species impacts in the project area.

Effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change and the EPA's continued roles and responsibilities in the review of the federal actions can be found on our website: <https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act>. The EPA appreciates the opportunity to review this Supplemental Draft EIS. If you have any questions, please contact me at (415) 947-4167, or contact Stephanie Gordon, the lead reviewer for this project, at 415-972-3098 or gordon.stephanies@epa.gov.

Response to Comment A-1

This comment is an introductory summary. Responses have been provided below to all detailed comments in the submitted letter.

Comment A-2

Air Quality

EPA's regulations at 40 CFR 93.150-165 provide a method for federal agencies to demonstrate general conformity with the National Ambient Air Quality Standards. Estimated annual emissions from a federal action are compared to the de minimis thresholds through an applicability assessment. If the emissions exceed the de minimis threshold, general conformity is applicable to the federal action and the EPA's regulations offer methods to demonstrate conformity as well as other requirements for the conformity demonstration, such as public involvement.

The Plan Area is located within the San Joaquin Valley Air Basin, which the EPA currently designates as extreme nonattainment for ozone and nonattainment for particulate matter of less than 2.5 microns (PM_{2.5}). The Supplemental Draft EIS indicates there would be degradation of air quality during project construction for the dam raise alternative. As shown in Table 4-1, volatile organic compounds (VOC), oxides of nitrogen (NO_x), carbon monoxide (CO), PM₁₀, and PM_{2.5} emissions would exceed the San Joaquin Valley Air Pollution Control District's significance thresholds, while VOC, NO_x, and PM₁₀ emissions would exceed the general conformity de minimis thresholds (p.4-11). The SDEIS acknowledges that a general conformity determination will be needed for Alternative 3 if it selected as Reclamation's preferred (p. 6-7).

Recommendation: We recommend including a draft general conformity determination in the Final RIS to fulfill the public participation requirements of 40 CFR 93.156.

Response to Comment A-2

As noted by the commenter, the Draft EIR/SEIS explains that construction actions in the study area would exceed general conformity de minimis thresholds for VOC, NO_x, and PM₁₀ emissions. Reclamation is currently working on the general conformity determination in coordination with the San Joaquin Valley Air Pollution Control District. The general conformity determination will be completed in compliance with requirements of 40 CFR 93.150-93.165.

Comment A-3

Construction Emissions

The proposed mitigation for air quality impacts, as detailed in Appendix B of the Draft EIR/SEIS, is to enter into a Voluntary Emissions Reduction Agreement with the San Joaquin Valley Air Pollution Control District. EPA recommends that Reclamation coordinate closely with the SJVAPCD to ensure that the project moves forward in a manner that reduce air quality impacts to the greatest extent possible. We note that there are a number of actions that can reduce construction-related emissions of NAAQS.

Recommendation: In addition to measures necessary to meet all applicable local, state, and federal requirements, EPA recommends the following mitigation measures be included in the construction emissions mitigation plan:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both active and inactive sites during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce unnecessary idling from heavy equipment.
- Prohibit engine tampering to increase horsepower, except when meeting manufacturer's recommendations.
- Lease or buy newer, cleaner equipment using the best available emissions control technologies.
 - Use lower-emitting engines and fuels, including electric, liquified gas, hydrogen fuel cells, and/or alternative diesel formulations, if feasible.
 - *On-Highway Vehicles*- On-highway vehicles should meet, or exceed, the U.S. EPA exhaust emissions standards for model year 2010 and newer heavy-duty-on-highway compression-ignition engines (e.g., drayage trucks, long haul trucks, refuse haulers, shuttle buses, etc.)¹⁰
 - *Nonroad Vehicles & Equipment*- Nonroad vehicles and equipment should meet or exceed, the U.S. EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., nonroad trucks, construction equipment, cargo handlers, etc.).¹¹

Administrative Controls:

- Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes cumulative impacts from other planned projects in the region, if feasible.
- Locate diesel engines, motors, and equipment staging areas as far as possible from residential areas and other sensitive receptors (e.g., schools, daycare centers, hospitals, senior centers, etc.).
- Avoid routing truck traffic near sensitive land uses to the fullest extent feasible.
- Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production.
- Recycle construction debris to the maximum extent feasible.

¹⁰ [EPA's Heavy-Duty Highway Compression-Ignition Engines and Urban Buses: Exhaust Emission Standards](https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100O9ZZ.pdf) is available at the following webpage: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100O9ZZ.pdf>

¹¹ [EPA's Nonroad Compression-Ignition Engines: Exhaust Emission Standards](https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf) is available at the following webpage: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf>

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.¹²
- Reduce construction-related trips of workers and equipment, including trucks.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify all commitments to reduce construction emissions and quantify air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.

Response to Comment A-3

Section 4.15, Mitigation Measures Proposed under the Proposed Action, includes the fugitive dust emission and source control measures recommended by the commenter. The San Joaquin Valley Air Pollution Control District requires several fugitive dust control measures in its Regulation VIII that encompass EPA's recommendations. The Administrative Control measures recommended by the EPA have been incorporated into the Final EIR/SEIS. Inclusion of the additional measures will not change the significance conclusions or the impacts for air quality or greenhouse gases. The measures are also further clarifications to existing measures and do not trigger recirculation.

Comment A-4

Cumulative Impacts

Chapter 5 details the cumulative impacts that would occur if other projects in the area begin construction at the same time. Multiple large construction projects in the area are proposed, including high speed rail, the Delta Conveyance Project, and most directly, the possible construction of Pacheco reservoir next to San Luis Reservoir. The current document analyzes Alternative 4 from the San Luis Low Point Improvement Project in the cumulative impact analysis for this document, even though that Alternative is the action alternative in this document (p. 5-3).

Recommendation: Include impacts from Alternative 5 from the San Luis Low Point Improvement Project/Pacheco Reservoir Project in the cumulative air impacts analysis of the Final EIS.

Consider additional mitigation (described above) and staggering construction schedules to minimize emission of NAAQS from multiple construction projects in the area.

Response to Comment A-4

Section 5.1.3 (Table 5-1) of the Draft EIR/SEIS has been updated with the emissions inventory for Alternative 5- Pacheco Reservoir Alternative from the San Luis Low Point Improvement Project Draft EIS/EIR. See Chapter 4, Errata of the Final EIR/SEIS for the revised analysis. The conclusions in the cumulative effects analysis are not changed as a result of this update.

¹² Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

Comment A-5

CWA Section 404 Permitting

The purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. These goals are achieved, in part, by controlling discharges of dredged or fill material pursuant to EPA's Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmental damaging practicable alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters.

The Supplemental Draft EIS does not address whether or not CWA Section 404 would apply to the project, but states that the dam raise alternative has the potential to impact wetlands (p. 6-7), that Reclamation and the San Luis Delta Mendota Water Authority would work with the U.S. Army Corps of Engineers regarding development of a CWA 404 permit, and that Mitigation Measure TERR-16 is intended to identify jurisdictional wetlands (p. 4-31).

Recommendations: Include in the Final EIS a discussion of the applicability of CWA Section 404 to project construction, operations, and maintenance activities. If applicable, discuss the permit requirements under this statute and identify the role of the Army Corps of Engineers in implementing these programs. Describe the results of the CWA Section 404 impacts analysis, as well as proposed mitigation, if applicable.

Conduct a USACE-verified jurisdictional delineation and quantify and describe in the Final EIS the waters of the U.S. that will be impacted by the proposed project.

Include the results of the CWA Section 404 (b)(1) Alternatives Analysis in the Final EIS with detailed discussion regarding determination of the LEDPA.

Discuss avoidance, minimization, and mitigation separately to clarify that aquatic resources are preserved and avoided to the greatest extent feasible by selecting the least damaging project type, spatial location and extent compatible with achieving the purpose of the project.

Present mitigation types sequentially in the following order:

- Avoidance - achieved through an analysis of appropriate and practicable alternatives and a consideration of impact footprint.
- Minimization - achieved through the incorporation of appropriate and practicable design and risk avoidance measures.
- Compensatory Mitigation - achieved through appropriate and practicable restoration, establishment, enhancement, and/or preservation of aquatic resource functions and services.

Should Reclamation choose not to include the results of a jurisdictional delineation and CWA Section 404 (b)(1) Alternatives Analysis within the Final EIS, EPA recommends that Reclamation include an assessment of the impacts to aquatic resources, an analysis of functions and values of

aquatic resources that will be lost by the proposed project, and a discussion of possible mitigation to reduce those impacts.

Response to Comment A-5

CWA Section 404 permitting activities, including completion of the jurisdictional delineation and Alternatives Analysis, is underway for the B.F. Sisk Dam SOD Modification Project. As a connected action, Reclamation is choosing to complete the Section 404 permitting for the B.F. Sisk Dam Raise and Reservoir Expansion Project as a supplement to the B.F. Sisk Dam SOD Modification Project. The B.F. Sisk Dam Raise and Reservoir Expansion Project Final EIR/SEIS has been revised to note jurisdictional delineation and alternatives analysis will be completed for the B.F. Sisk Dam Raise and Reservoir Expansion Project.

Section 4.9 of the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft EIR/SEIS includes an assessment of the impacts to aquatic resources, an analysis of functions and values of aquatic resources that will be impacted by the proposed project, and a discussion of mitigation consistent with the permitting authority's no net loss policy.

Comment A-6

Alternatives Analysis

EPA understands that Reclamation is striving to complete NEPA requirements in a concise manner. The current Supplemental Draft EIS has incorporated by reference a number of appendices that describe the alternatives, impacts to water quality, construction emissions and impacts to air quality, mitigation to offset impacts, and others. This method of providing relevant information creates challenges for reading and understanding the NEPA document.

Recommendation: EPA recommends that brief summaries be included in the main body of the EIS document itself, in addition to the incorporation by reference; for example, include a description of the need for increased reliability that is summarized in Chapter 3 of Appendix A. Readability is important for the public and decision-makers to understand the purpose and needs of projects and compare amongst alternatives.

Response to Comment A-6

A summary of Appendix A, including a description of the need for increased reliability, has been added to Chapter 2 of the Final EIR/SEIS. As such, all appendices have been summarized in the main document of the Final EIR/SEIS.

3.2.2 Comment Letter B, Justin Fredrickson, California Farm Bureau Federation

Comment B-1

The California Farm Bureau is California's largest farm organization, working to protect family farms and ranches on behalf of its nearly 36,000 members statewide and as part of a nationwide network of more than 5.5 million members. Organized 100 years ago as a voluntary, nongovernmental and nonpartisan organization, it advances its mission throughout the state together with its 53 county Farm Bureaus.

These comments are submitted in relation to the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement (“Draft SEIS/R”).

San Luis Reservoir is a strategically located work-horse facility and cornerstone of California’s massive Central Valley Project (“CVP”) and State Water Project (“SWP”) system. The combination of dam safety and water storage will significantly increase the resilience of California state-federal system.

The 130,000 acre-feet of additional storage space proposed as part of a 10-foot crest raise, over and above the 12-foot dam safety raise already contemplated, will inject sorely needed operational flexibility on both sides of the hydrological cycle: On the one hand, it will create new spill-protected carry over, rescheduled water, transfer water, and dry-year reserve space to serve as a buffer against future droughts. On the other hand, the same space will also better capture excess flows in wet years. Both of these operational features will help to smooth some of the year-to-year water supply volatility of recent years and, in turn, help restore certainty and reliability lost over roughly the last two decades.

A confluence of circumstances make it important to move decisively and expeditiously in pursuing this key system-level improvement at this time. One circumstance is the dam safety 12-foot crest raise already identified as a “connected action” (i.e., the related B.F. Sisk Dam Safety of Dams Modification Project). This improvement alone will require an estimated 12 years to complete (from roughly 2025 to 2032); this same 12-year timeframe, in turn, coincides with the time required for an expanded, combined dam safety and water supply raise project, within the same footprint. Coordination of the two projects will avoid additional disruption and take advantage of the partial outage and other construction impacts already planned.

Additional project advantages include the unique availability of multiple cost-shares, including already approved Safety of Dams funds, potential Water Infrastructure Improvements for the Nation (“WIIN”) Act funding, local beneficiary shares as well as any other sources.

As a modest expansion on an off-stream reservoir, the upstream environmental impact of the proposed project is negligible in the grand scheme, and more than offset by expected environmental benefits. South-of-Delta refuge water benefits are one such benefit. Another derives from the increment in dry and wet year operational flexibility as a means to lessen year-to-year whiplash effects with operations otherwise constantly playing catch up, always one up or one down, continually constrained to make up in one year for what is lost in another.

While the exact cost-benefit calculus of a feasibility study currently in process remains to further refine, inform, and sort out selection of a final preferred alternative, it is encouraging to see a well-founded range of logical alternatives in the Draft SEIS/R, including Alternative 3 (the Dam Crest Raise Alternative), three related sub-alternatives (100% CVP-Only Storage, 45%:55% CVP/SWP Split Storage), and four additional options within the third “Investor Directed” alternative.

Response to Comment B-1

This comment is an introductory summary. Responses have been provided below to all detailed comments in the submitted letter.

Comment B-2

Within the “Investor Directed” third sub-alternative, specifically, there are proposed three configurations as follows:

- Configuration A – 180 TAF upper, carry-over water target; SLDMWA investor group, 78% agriculture, 7% M&I, and 15% federal refuge water.
- Configuration B – 180 TAF upper, carry-over target; SLDMWA investor group, 90% M&I, 10% ag.
- Configuration C – 310 TAF upper, carry-over target; SLDMWA investor group, 78% ag, 7% M&I, and 15% federal refuge water.
- Configuration D – 310 TAF upper, carry-over target; SLDMWA investor group, 90% M&I, 10% ag.

Which of the above-enumerated alternatives, sub-alternatives and/or sub-alternative “configurations” is ultimately selected is, again, a question to be further explored. Presumably, this will occur in the San Luis-Delta Mendota Authority (“Authority”)’s and the Bureau of Reclamation (“Bureau”)’s pending feasibility study, and in any related negotiations (among CVP user groups, SWP interests, and ag and M&I interests within the Authority itself). As such, we refrain from prejudging any particular outcome. As a general observation, however, one essential consideration would appear to be reaching an acceptable arrangement on this shared facility between the CVP and SWP. A second is to reach an agreeable arrangement within the family of CVP contractors generally. Finally, there remains the division of potential benefits amongst agricultural versus municipal and industrial versus wildlife refuge water interests within the Authority itself.

Response to Comment B-2

As the commenter notes, the financial feasibility and economic feasibility of the alternatives will be further explored in the Feasibility Report, currently under development. The EIR/SEIS evaluates the environmental impacts of each of the alternatives, as required under NEPA and CEQA, and identifies the preferred alternative.

Regarding the comment on reaching an acceptable arrangement between CVP and SWP, as explained in Section 4.2 of the Draft EIR/SEIS, approvals issued for subalternative operations will be coordinated with DWR consistent with the contractual rights and obligations of and between Reclamation and DWR. Operations pursuant to these agreements will continue to be coordinated with DWR prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the subalternative affects SWP operations.

Regarding the comment on reaching an acceptable arrangement between CVP water users, as explained in Section 2.2.3 of the Draft EIR/SEIS, the subalternatives evaluated in the EIR/SEIS demonstrate operational bookends to assess the high- and low-end of potential environmental effects. If the B.F Sisk Dam Raise and Reservoir Expansion Project is approved, specific operations of CVP facilities within these bookends will continue to be coordinated between the CVP Stakeholders, Reclamation and DWR.

Comment B-3

Within the third “Investor Director” sub-alternative, given the relevant lack of critical demand on the M&I side, greater equity and an enhanced ability to meet critical unmet ag demands under either

Configuration B or D would appear to offer the better option. Hard numbers to support these or any other option should emerge with greater clarity from the pending feasibility study. A final choice will likely further hinge on continuing negotiations, financial commitments, and the like. This is all part of the hard, but necessary process of formulating the best, most financially and technical sound, environmentally justified, and broadly supported project possible—even when, objectively, for this, we believe the proposed B.F. Sisk Dam and Reservoir Expansion Project should be as well positioned as any in the state. The good news, in the meantime, is that the Draft SEIS’s range of alternatives, sub-alternatives and various potential “configurations” within sub-alternatives affords considerable flexibility, appearing to provide an ample and well-grounded framework within which to work.

Response to Comment B-3

As stated in Section 4.2.5 of the Draft EIR/SEIS, under the Investor-Directed Storage, subalternatives B and D average annual South-of-Delta CVP agricultural deliveries are expected to increase slightly as indicated in Appendix E, addressing critical unmet agricultural demand. The action alternatives, including Investor-Directed Storage Subalternative B and D, would also provide increased dry year water supply reliability to the M&I water users. In addition to the dry year water supply reliability the action alternatives would also capture excess delta flows which would increase water supply to M&I water users. However, as explained in Section 6.4 of the Draft EIR/SEIS, the additional water supply under the action alternatives would not be in excess of existing CVP and SWP contracts. Consequently, the water supply under the action alternatives including Investor-Directed Storage Subalternative B and D would meet CVP SOD M&I water supply demand. CVP SOD M&I water users include City of Avenal, City of Hollister, City of Coalinga, City of Tracy, City of Huron, Panoche Water District, San Luis Water District, Lemoore Naval Air Station, Fresno County, Tulare County, and Valley Water.

As noted by the commenter, the purpose of the Draft EIR/SEIS is to evaluate environmental impacts of the proposed project alternatives. The subalternatives evaluated in the EIR/SEIS demonstrate operational bookends for the high- and low-end of potential environmental effects of operational variations.

Comment B-4

In contrast to the promise of some variation on the sub-alternatives under Alternative 3, Alternative 2, the ‘non-structural’ dry-year option, notably fails to meet the core project purpose as well as several objectives. These purposes and objectives include improved water supply reliability, increased operational flexibility, increased reliability for South of Delta contractors, and greater certainty of access to multi-year carryover, rescheduled, and transfer water in San Luis Reservoir. While potentially useful to provide a range of potential alternatives for comparison in the Draft SEIS/R, it is our observation that Alternative 2 seems to work directly against many or all of these stated project purposes and objectives.

In closing, the California Farm Bureau thanks the Authority and the Bureau for their hard work on this critically important and strategic piece of infrastructure, and for the opportunity to comment. We look eagerly forward to the joint selection of a final preferred alternative by the Authority and the Bureau, and to the prospect of expeditious progress through necessary permitting, procurement, and construction.

Questions regarding this correspondence may be directly, as an initial point of contact, to the undersigned, Justin Fredrickson at 916-561-5673 or jfredrickson@cbbf.com.

Response to Comment B-4

This comment letter was generally in support of the project; however the commenter does note Alternative 2 in the Draft EIR/SEIS does not meet the project objective. As explained in Section 2.2.2 of the Draft EIR/SEIS and subsequently by the commenter, the non-structural alternative would not completely meet the project objectives/purpose and needs of the Proposed Action. However, the nonstructural alternative is analyzed in the B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS in accordance with the *Directive and Standard – Developing Additional Project Benefits in Conjunction with a Safety of Dams Modification Project* (Reclamation 2016). This directive and standard requires the evaluation of “a non-structural alternative that meets the needs and objectives of the additional benefits of the additional benefits project”. SLDMWA and Reclamation followed a structured, documented process to identify and screen alternatives for inclusion in the EIR/SEIS. SLDMWA, its member agencies, and Reclamation developed measures that could, in part, contribute the project’s objectives/purposes and needs. Following qualitative scoring, the remaining measures that best met the project’s objectives/purposes and needs, were combined into two action alternatives, including the Non-Structural Alternative. The Non-Structural Alternative evaluated in the Draft EIR/SEIS includes measures that scored the highest in meeting project objective/purpose and need.

3.2.3 Comment Letter C, Jason Phillips, Friant Water Authority

Comment C-1

On behalf of Friant Water Authority (FWA), thank you for the opportunity to provide comments on the Draft Environmental Impact Report and Supplemental Environmental Impact Statement (Draft EIR/SEIS) for the B.F. Sisk Dam Raise and Reservoir Expansion Project (Project), consistent with the requirements of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

As stated in the Draft EIR/SEIS, the Project includes a crest raise to address seismic risks at the dam but also an additional 10-foot raise to increase storage capacity at the reservoir by approximately 120,000 acre-feet. In addition, a non-structural alternative is provided to improve water supply flexibility. The reservoir expansion component may include the Bureau of Reclamation as a federal cost-share partner under the Water Infrastructure Investments for the Nation Act.

FWA is a public agency representing a majority of the Friant Division of the Central Valley Project (CVP). FWA also operates and maintains the Friant-Kern Canal, which supplies San Joaquin River water stored at Millerton Lake to more than 30 Friant contractors, and to 15,000 family farms on more than one million acres of irrigable farm land on the eastside of the southern San Joaquin Valley. As such, we thoroughly appreciate that surface water storage is critical for the Valley and for all of California. Protecting existing storage infrastructure and adding it where feasible is important, and we support Reclamation and SLDMWA’s efforts to achieve both at Sisk Dam.

FWA has reviewed the Draft EIR/SEIS, considering previously provided environmental scoping comments provided by FWA on June 15, 2020 and offer the following comments:

1. **The description of the Non-Structural Alternative (Alternative 2) is unclear.** Section 2.2.2 states “Under the Non-Structural Alternative, Reclamation would change its annual allocation process to reserve up to 310 TAF of stored CVP supply in San Luis Reservoir at the end of wetter years. This water would be reserved in San Luis Reservoir for allocation in subsequent drier years to South-of-Delta CVP contractors. In these drier years, the 310 TAF in reserved supply would be allocated to M&I South-of-Delta CVP contractors, consistent with the CVP’s current allocation of water supply stored in San Luis Reservoir (emphasis added).” Section 4.2.4 states “Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types (emphasis added).” It is unclear if the reservation of 310 TAF of stored CVP supply from wet to drier years is to be allocated to all South-of-Delta (SOD) CVP contractors, M&I SOD CVP contractors, and/or Exchange Contractors.

Response to Comment C-1

Under Alternative 2, the reserved water supply from the end of wetter years would be allocated to all South-of-Delta CVP Contractors consistent with the CVP’s current allocation of water supply stored in San Luis Reservoir, but only if supply is sufficient to meet the demands of senior water rights contractors. Water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types. Section 2.2.2 of the Final EIR/SEIS has been revised to clarify reserved supplies would be allocated to all South-of-Delta Contractors and not be limited to M&I South-of-Delta Contractors. Additionally, as noted in Section 2.2.2, reserved water could also be diverted to Exchange Contractors in critical water year types.

Comment C-2

2. **The modeling results show that Alternative 2 does not meet the water supply reliability objective and project purpose and need and should have been screened out during the alternatives development.** The Draft EIR/SEIS concluded that the operational modifications evaluated under the Non-Structural Alternative (Alternative 2) would result in significant and unavoidable water supply impacts, and no mitigation is proposed. According to Table 5 in Appendix E, SOD CVP agricultural water supply deliveries would decrease from 0 to 86 TAF per year for critical to wet years with an average annual impact of 42 TAF per year. There would be some small increase in deliveries in the spring, but those do not offset the decreases in the fall. Section 2.2.2 acknowledges that this alternative does not completely meet the project objectives. It states that it would partially meet the water supply reliability objective. The minor benefit provided to SWP contractors is within the modelling error of CalSim.

Response to Comment C-2

As explained in Section 2.2.2 of the Draft EIR/SEIS and subsequently by the commenter, the non-structural alternative would not completely meet the project objectives/purpose and needs of the Proposed Action. However, the nonstructural alternative is analyzed in the B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS in accordance with the *Directive and Standard – Developing Additional Project Benefits in Conjunction with a Safety of Dams Modification Project* (Reclamation 2016). This directive and standard requires the evaluation of “a non-structural alternative that meets the needs and objectives of the additional benefits of the additional benefits project”. SLDMWA and Reclamation followed a structured, documented process to identify and screen alternatives for inclusion in the

EIR/SEIS. SLDMWA, its member agencies, and Reclamation developed measures that could, in part, contribute the project's objectives/purposes and needs. Following qualitative scoring, the remaining measure, that best met the project's objectives/purposes and needs, were combined into two action alternatives, including the Non-Structural Alternative. Although this Non-Structural Alternative partially meets project objectives/purpose and needs it includes measures that scored the highest in meeting project objective/purpose and need.

As analyzed in Section 4.2.4 of the Draft EIR/SEIS, Alternative 2 would result in significant and unavoidable water supply impacts. However, given the environmental and technological limits on other potential options to offset this impact, no feasible mitigation (CEQA 21061.1) has been identified to reduce these impacts to a less than significant level.

Comment C-3

3. **Is it unclear how the impacts to CVP SOD agricultural contractors are distributed.** CVP SOD agricultural impacts should be disaggregated or addressed as requested in FWA's scoping comments:

- San Joaquin River Exchange Contractors;
- Cross Valley Canal Contractors;
- Water Service Contractors;
- Repayment Contractors; and
- San Joaquin River Restoration Settlement Paragraph 16(a) Water (i.e. Recapture and Recirculation).

Response to Comment C-3

Under Alternative 2, the decrease in South-of-Delta CVP agricultural deliveries primarily occur in wet and above normal years types with slight decreases in dry and critical years. This decrease in agricultural deliveries is caused by South-of-Delta CVP water users with an existing ability to reschedule supplies in the reservoir reserving of up to 310 TAF for supply during drier year types. The decrease in agricultural deliveries identified in the EIR/SEIS would only impact water users with the ability to reschedule water stored in San Luis Reservoir, (i.e., Water Service Contractors). Their storage of rescheduled supply in San Luis Reservoir results in some years when the reservoir is filled to capacity the reallocation of that rescheduled supply to other CVP water users. There would be no change in deliveries under Alternative 2 to CVP water users that do not currently have an ability to reschedule their CVP supply in San Luis Reservoir.

Comment C-4

4. **Use of CalSim II model is insufficient in evaluating impacts to San Joaquin River Exchange Contractors as the range of hydrology considered in the model does not account for the 2012 through 2016 drought.** Modeling should be revised to account for this condition, and/or proof that any CVP SOD water impacts would not apply to San Joaquin River Exchange Contractors.

Response to Comment C-4

The decreases in water supply deliveries to CVP water users identified in the modeling under Alternative 2 and Investor-Directed Storage subalternatives C and D are primarily forecast in wet

and above normal year types, with slight decreases in dry years. The CalSim II Modeling shows no reductions in critical year CVP deliveries, and in some critical years there are increases in deliveries as a result of rescheduling. Given the potential increases in deliveries during drought cycles (deliveries during critical years) revisions to the model to include drought conditions from 2012 to 2016 would not result in a decrease in deliveries during dry years. The CalSim II modeling currently includes multiple multi-year drought cycles (1976–1977, 1988–1992) and therefore represents potential future dry year conditions. Suggested revisions to the model identified in the comment would not result in new impacts to CVP water users or change the significance determinations for effects identified in the modeling.

Comment C-5

- 5. Although most operational configurations of Alternative 3 have a beneficial effect on SOD CVP contractors, there are at times negative impacts during certain months and year types and it is unclear how those impacts are distributed (see Comment #3).**

Thank you for the opportunity to comment. You may contact me with any questions at 559-562-6305 or jphillips@friantwater.org.

Response to Comment C-5

Decreases in deliveries during certain months and year types under Alternative 3 CVP/SWP Split Storage and Alternative 3 Investor-Directed Storage Configuration D would not impact total CVP agricultural deliveries and are considered minor, insubstantial fluctuations due to model assumptions and approaches.

Average South-of-Delta CVP agricultural deliveries under Alternative 3 Investor-Directed Storage Configuration C are expected to decrease in certain months due to rescheduling of water in wet and above normal years for use in dry and critical years. This decrease in agricultural deliveries is caused by South-of-Delta CVP water users with an existing ability to reschedule supplies in the reservoir reserving of up to 310 TAF for supply during drier year types. The decrease in agricultural deliveries identified in the EIR/SEIS would only impact water users with the ability to reschedule water stored in San Luis Reservoir, (i.e., Water Service Contractors). Their storage of rescheduled supply in San Luis Reservoir results in some years when the reservoir is filled to capacity the reallocation of that rescheduled supply to other CVP water users. There would be no change in deliveries under Alternative 2 to CVP water users that do not currently have an ability to reschedule their CVP supply in San Luis Reservoir.. There would be no change to San Joaquin River Exchange Contractor, Cross Valley Canal Contractors, and Repayment Contractors deliveries under Alternative 3 Investor-Directed Storage Configuration C.

3.2.4 Comment Letter D, Deanna Sereno, Contra Costa Water District

Comment D-1

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report / Supplemental Environmental Impact Statement (Draft EIR/SEIS) for the B.F. Sisk Dam Raise and Reservoir Expansion Project. Contra Costa Water District (CCWD) serves water from its intakes in the Sacramento-San Joaquin Delta for residential, commercial, and industrial uses in eastern and central Contra Costa County. CCWD relies on the Delta, together with recycled water, for 100% of its water supply, including Central Valley Project contract deliveries, diversions under CCWD's own

water rights, and diversions under East Contra Costa Irrigation District's pre-1914 water right. As such, CCWD has a vital interest in the B.F. Sisk Dam Raise and Reservoir Expansion Project.

CCWD diverts water from four intakes in the Delta for treatment and/or delivery to CCWD's customers. The choice of which intake to use at any time is based largely on salinity at the intakes, with consideration of fish protection requirements for operation of CCWD's intakes and Los Vaqueros Reservoir. Additionally, CCWD diverts water from two of its intakes to storage in the Los Vaqueros Reservoir, an off-stream reservoir that is owned and operated by CCWD and was built to improve water quality and provide drought and emergency storage for CCWD's customers.

CCWD's operation of its diversion, storage, and conveyance facilities meets the permitting requirements of the Endangered Species Act and CESA through biological opinions (BOs) issued by the National Marine Fisheries Service and the United States Fish & Wildlife Service and an Incidental Take Permit (ITP) from the California Department of Fish and Wildlife (the "CCWD-specific BOs and ITP"), which are separate and distinct from the BOs for the coordinated long-term operation of the Central Valley Project (CVP) and State Water Project (SWP) and from the ITP for ongoing operation of the SWP. The CCWD-specific BOs and ITP include terms and conditions that fully mitigate for the effects of CCWD's diversions on covered species. CCWD, the Bureau of Reclamation (Reclamation), and the California Department of Water Resources (DWR) currently coordinate operations so that in-Delta standards and fishery regulations are met without additional limitations or restrictions on CCWD's operations beyond what is necessary to fully mitigate for CCWD's effects as identified in the CCWD-specific BOs and ITP.

Response to Comment D-1

This comment is an introductory summary. Responses have been provided below to all detailed comments in the submitted letter.

Comment D-2

The Draft EIR/SEIS uses modeling that is based on the assumption that CCWD would continue to be governed by its own biological opinions and permits, without new or additional restrictions or limitations as a result of the implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project. This is consistent with Reclamation's recent reconsultation on the long-term coordinated operation of the CVP and SWP (ROC on LTO), which encompasses Reclamation's compliance with the National Environmental Policy Act and the Endangered Species Act for all CVP operations. For consistency with the ROC on LTO, CCWD recommends that the Final EIR/SEIS for the B.F. Sisk Dam Raise and Reservoir Expansion Project include a statement that CCWD's facilities will continue to be operated and maintained according to the biological opinions and permits that specifically apply to those facilities, and that the implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project will not create new or additional limitations or restrictions on CCWD operations beyond the requirements set forth in those separate biological opinions and permits – thereby ensuring that CCWD will have opportunities to fill Los Vaqueros Reservoir that are at least comparable to the current conditions. This mirrors the language in Reclamation's Record of Decision on the ROC on LTO. Furthermore, CCWD would like to work with Reclamation and San Luis & Delta-Mendota Water Authority (SLDMWA) to coordinate operations to ensure that the B.F. Sisk Dam Raise and Reservoir Expansion Project minimizes adverse impacts to CCWD and its customers, protecting existing beneficial uses of water and supporting Reclamation's goals for improving overall CVP water supply reliability.

Finally, Reclamation and CCWD are the lead agencies in the development of the Phase 2 Los Vaqueros Reservoir Expansion Project, for which SLDMWA is a Local Agency Partner, evaluating potential participation in the project to help strengthen their water supply portfolios to better manage droughts, emergencies, climate change and regulatory challenges that limit other supplies. In August 2020, Reclamation released the Final Feasibility Report that recognized the need to increase CVP operational flexibility, to increase the reliability of water supplies delivered to the Bay Area and CVP contractors south of the Delta, and to secure long-term water supplies for south of Delta wildlife refuges. The Final Feasibility Report found that the Phase 2 Los Vaqueros Reservoir Expansion Project is technically, environmentally, economically, and financially feasible.

As the Phase 2 Los Vaqueros Reservoir Expansion Project and the B.F. Sisk Dam Raise and Reservoir Expansion Project move forward, CCWD is committed to working closely with Reclamation and SLDMWA to evaluate the potential to coordinate the operations of both projects, as well as other existing or proposed water storage and conveyance infrastructure, with the goal of improving overall CVP operational flexibility and increasing water supply reliability benefits for all parties.

CCWD looks forward to working collaboratively with Reclamation and SLDMWA to coordinate as described above to our mutual benefit. If you have any questions, please do not hesitate to get in touch with me at (925) 525-5445 or dsereno@ccwater.com.

Response to Comment D-2

As explained in the Draft EIR/SEIS and acknowledged by the commenter, the B.F. Sisk Dam Raise and Reservoir Expansion Project was analyzed consistent with existing regulatory requirements, including the Reinitiation of Consultation on the Coordinated Long-Term Operations of CVP and SWP (ROC on LTO) ROD. Therefore, all the requirements under the ROC on LTO ROD including maintaining conditions that will not create new or additional restrictions on CCWD's ability to fill Los Vaqueros Reservoir beyond the restrictions in the Biological Opinions for Los Vaqueros Reservoir, will be met under the B.F. Sisk Dam Raise and Reservoir Expansion Project. The addition of a specific statement to the EIR/SEIS is not necessary as it is already considered in Section 2.2.1 of the Draft EIR/SEIS.

3.2.5 Comment Letter E, Julie A. Vance, California Department of Fish and Wildlife

Comment E-1

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS) from the San Luis and Delta-Mendota Water Authority (Authority) and Bureau of Reclamation (Reclamation) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹³

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that

¹³ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish and Game Code, §§ 711.7, subd. (a) and 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish and Game Code, § 1802). Similarly, for purposes of CEQA, CDFW is charged to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, §211069; CEQA Guidelines, § 15381). CDFW expects it may need to exercise regulatory authority for the Project as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.

Water Rights: The use of unallocated stream flows is subject to appropriation and approval by the State Water Resources Control Board (SWRCB) pursuant to Water Code § 1225. CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Certain fish and wildlife are reliant upon aquatic ecosystems, which in turn are reliant upon adequate flows of water. CDFW therefore has a material interest in assuring that adequate water flows within streams for the protection, maintenance and proper stewardship of those resources. CDFW provides, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities.

PROJECT DESCRIPTION SUMMARY

Proponent: San Luis and Delta-Mendota Water Authority and Bureau of Reclamation

Objective: In 2005, Reclamation completed a risk analysis of B.F. Sisk Dam that concluded there is justification to take action to reduce risk to the downstream public from a potential severe earthquake. Consequently, Reclamation, in coordination with the California Department of Water Resources, completed the B.F. Sisk Dam Safety of Dams (SOD) Modification Project EIS/EIR in December 2019. The Crest Raise Alternative was selected to be implemented. Raising the crest elevation 12 feet would increase the distance between the water surface and the dam crest to prevent reservoir overtopping and failure in the event of dam deformation from a seismic event.

The Project proposes additional fill material on the dam embankment to raise the dam crest an additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam SOD Modification Project. The 10-foot embankment raise would support an increase in reservoir

storage capacity of 130 thousand acre-feet. Project activities include levee modifications to the banks of the San Luis Reservoir via fill to a section of State Route 152 where it crosses over Cottonwood Bay between milepost MER R5.239 and MER R5.806, fill to State Route 152 at milepost MER R6.295, and fill to raise a levee at Dinosaur Point.

Location: The Project location is the San Luis Reservoir, located approximately 12 miles west of Los Banos, in Merced County, California.

Timeframe: Construction of Project activities is scheduled to start in September 2025 and completed in 8 years. Preconstruction and design activities will begin in 2022.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Authority and Reclamation in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

There are many special-status resources present in and adjacent to the Project area. These resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the State and federally threatened California tiger salamander (*Ambystoma californiense*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the State endangered foothill yellow-legged frog (*Rana boylii*), the State endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), the fully protected golden eagle (*Aquila chrysaetos*), the State threatened Swainson's hawk (*Buteo swainsonii*), the federally threatened and State species of special concern California red-legged frog (*Rana draytonii*), the State candidate-listed as threatened mountain lion (*Puma concolor*), and tule elk (*Cervus canadensis nannodes*). In order to adequately assess any potential impacts to biological resources, focused biological surveys conducted by a qualified wildlife biologist are recommended during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project area. Properly conducted biological surveys, and the information assembled from them, are essential to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol-level surveys, especially in the areas not in irrigated agriculture, and to identify any Project-related impacts under CESA and other species of concern.

Response to Comment E-1

This comment is an introductory summary. Responses have been provided below to all detailed comments in the submitted comment letter.

Comment E-2

1. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: California Tiger Salamander (CTS)

Issue: CTS have the potential to occur in the Project site. Aerial imagery shows that the Project site consists of upland habitat, which likely serve as refugia for CTS that are dispersing from and into the area, and aquatic features that may provide CTS breeding habitat.

Specific Impacts: Aerial imagery shows that the proposed Project site has upland habitat for refugia which may function as breeding habitat. Potential ground- and vegetation-disturbing activities associated with Project activities include: collapse of small mammal burrows, inadvertent entrapment, loss of upland refugia, water quality impacts to breeding sites, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact would be significant: Up to 75% of historic CTS habitat has been lost to urban and agricultural development (Searcy et al. 2013). Loss, degradation, and fragmentation of habitat are the primary threats to CTS in both the Central and San Joaquin valleys. Contaminants and vehicle strikes are also sources of mortality for the species (CDFW 2015, USFWS 2017a). The Project site is within the range of CTS and has suitable habitat (i.e., grasslands interspersed with burrows and vernal pools). CTS have been determined to be physiologically capable of dispersing up to approximately 1.5 miles from seasonally flooded wetlands (Searcy and Shaffer 2011) and have been documented to occur near the Project site (CDFW 2020). Given the presence of suitable habitat within the Project site, ground-disturbing activities have the potential to significantly impact local populations of CTS.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CTS, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final Environmental Impact Report (EIR) prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 1: Focused CTS Protocol-level Surveys

While Mitigation Measure TERR-3 of the draft EIR/SEIS states that surveys will be conducted for CTS, CDFW recommends that a qualified biologist conduct protocol-level surveys in accordance with the USFWS "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander" (USFWS 2003) at the appropriate time of year to determine the existence and extent of CTS breeding and refugia habitat. The protocol-level surveys for CTS require more than one survey season and are dependent upon sufficient rainfall to complete. As a result, consultation with CDFW and the USFWS is recommended well in advance of beginning the surveys and prior to any planned vegetation- or ground-disturbing activities. CDFW advises that the protocol-level survey include a 100-foot buffer around the Project area in all areas of wetland and upland habitat that could support CTS. Please be advised that protocol-level survey results are viable for two years after the results are reviewed by CDFW.

Recommended Mitigation Measure 2: CTS Avoidance

If CTS protocol-level surveys as described in the above Mitigation Measure 1 are not conducted, CDFW advises that a minimum 50-foot' no-disturbance buffer be delineated around

all small mammal burrows in suitable upland refugia habitat within and/or adjacent to the Project site. Further, CDFW recommends potential or known breeding habitat within and/or adjacent to the Project site be delineated with a minimum 250-foot no-disturbance buffer. Both upland burrow and wetland breeding no-disturbance buffers are intended to minimize impacts to CTS habitat and avoid take of individuals. Alternatively, the applicant can assume presence of CTS within the Project site and obtain from CDFW a State Incidental Take Permit (ITP) in accordance with Fish and Game Code section 2081 subdivision (b).

Recommended Mitigation Measure 3: CTS Take Authorization

If through surveys it is determined that CTS are occupying or have the potential to occupy the Project site, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities to comply with CESA. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b). As stated above, in the absence of protocol surveys, the Authority can assume presence of CTS within the Project site and obtain an ITP from CDFW.

Response to Comment E-2

The Draft EIR/SEIS reflects the fact that portions of the project site provide potential habitat for California tiger salamander (CTS), stating on pg. 4-29 that construction could result in associated impacts to habitat or direct or indirect harm to several special status wildlife species, including CTS. The analysis goes on to specifically define areas where construction could encounter CTS. Hence, the comment that project activities could affect upland habitat for CTS in various life history phases agrees with the analysis in the Draft EIR/SEIS. However construction activities would not reduce the vigor of eggs and/or salamanders in ponds because no known or potential CTS breeding ponds occur adjacent to work areas (i.e., the Dinosaur Point and State Route 152 work areas). The statement that the impacts to CTS would be significant is consistent with the impact discussion in the Draft EIR/SEIS for the construction and operation of Alternative 3. The comment does not state that the setting or impact analysis in the Draft EIR/SEIS is deficient; and is therefore noted.

The comment does not address the adequacy of the Draft EIR/SEIS's mitigation measures to avoid and minimize impacts to CTS. Rather, it recommends three additional mitigation measures, which are discussed here individually. Recommended Mitigation Measure 1 (Focused CTS Protocol-level Surveys) suggests that Reclamation and SLDMWA perform protocol-level surveys under the U.S. Fish and Wildlife Service (USFWS) survey protocol to identify active CTS breeding habitat. Instead the analysis conservatively assumes the presence of CTS in all upland habitat that occurs within 1 mile of any potential CTS breeding feature – consistent with USFWS and CDFW guidance.

Recommended Mitigation Measure 2 (CTS Avoidance) advises that no-disturbance buffers should be delineated around all small mammal burrows within the project site, and that known breeding sites be delineated with a 250-foot avoidance buffer. As identified in the Mitigation Measure TERR-3, a USFWS- and CDFW-approved biologist would clear the work areas of potential CTS habitat and relocate individuals prior to construction. CTS relocation would be performed consistent with forthcoming permit requirements from the USFWS and CDFW, with minimal risk of species take during relocation activities. This approach, which would avoid and minimize injury to CTS, would be less than significant following mitigation. Mitigation Measures TERR-3 includes exclusion fencing to protect potential breeding and upland habitats.

Recommended Mitigation Measure 3 (CTS Take Authorization) states that if CTS take cannot be avoided, that an ITP would be needed from CDFW, pursuant to Fish and Game Code section 2081 subdivision (b). If take of CTS is anticipated, SLDMWA would pursue take authorization with CDFW consistent with the comment.

Comment E-3

COMMENT 2: San Joaquin Kit Fox (SJKF)

Issue: The Project has the potential to impact SJKF. The area from around Los Banos Reservoir to the north of San Luis Reservoir has been identified by CDFW and the USFWS as a migratory corridor critical to the continued existence and genetic diversity of the northern kit fox population - with the Santa Nella area being identified as a critical SJKF migratory "pinch-point" within this area (HT Harvey and Associates 2004). The creation of the San Luis Reservoir and O'Neil Forebay resulted in a large migratory barrier to the north-south migration of SJKF, and busy highways in the area such as State Routes 152 and 33 and Interstate 5, as well as the existing urban development further compounded this problem. As a result, any grassland, shrub land, or dry farmed habitat features in this area that could serve as movement or rest areas for SJKF has very high conservation values for this species. Any loss of these features within the corridor is potentially significant. In addition, SJKF has the potential to occur on the Project site because of the proximity of the Project site to the Santa Nella area. Any take of SJKF without appropriate take authorization would be a violation of Fish and Game Code.

Specific impact: The draft EIR/SIES state that to compensate for the 8-year loss of the Santa Nella area SJKF movement corridor during construction, Mitigation Measure TERR-12 will be implemented which propose construction of a broad (e.g. 80- to 120- foot wide) earthen bridge over the mid-portion of the B.F. Sisk Dam spillway, and finishing the upper portion of State Route 152 causeway at Cottonwood Bay with earthen materials. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with Project activities include den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). The Project area consists and is bordered by some of the only remaining undeveloped land in the vicinity. Therefore, subsequent ground-disturbing activities have the potential to significantly impact local SJKF populations.

Recommended Analysis

CDFW recommends the draft EIR/SEIS quantify and describe the direct and indirect potential impacts to SJKF, including any impacts to the SJKF movement corridor and other conservation areas. CDFW recommends the evaluation include the cumulative impacts to SJKF from other existing, planned and potential development from south of the Los Banos Reservoir to north of the San Luis Reservoir that may impact existing upland habitat.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

To evaluate potential impacts to SJKF, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final

EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 4: SJKF Surveys

CDFW agree with Mitigation Measure TERR-12 of the draft EIR/SEIS that presence/absence of SJKF be assessed by conducting surveys and implementing den avoidance buffers following the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011). Specifically, CDFW advises conducting these surveys in all areas of potentially suitable habitat no less than 14 days and no more than 30 days prior to beginning of ground-disturbing activities.

Recommended Mitigation Measure 5: SJKF Take Authorization

SJKF detection warrants consultation with CDFW to discuss how to avoid take, or if avoidance is not feasible, to acquire an ITP by the Authority prior to grounddisturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

Response to Comment E-3

The comment initially describes that the project has the potential to impact SJKF noting the importance of the SJKF migratory corridor and acknowledging the presence of a migratory pinch-point for this species within the Santa Nella area due to barriers including highway constraints (SR 152, SR 33, and I-5), noting that the grasslands, shrubland, and dry farmed habitats have high conservation value for SJKF. The comment notes that SJKF has the potential to occur on the project site because of its proximity to the Santa Nella area, and states that any take of SJKF without ITP take authorization would violate Fish and Game Code. The description of the SJKF movement corridor and its potential use by SJKF is reflected in the Draft EIR/SEIS, and does not represent a deficiency in the Draft EIR/SEIS analysis. The Draft EIR/SEIS reflects the fact that portions of the project site provide potential habitat for SJKF, stating on pg. 4-29 that construction could result in associated impacts to habitat or direct or indirect harm to several special status wildlife species, including SJKF. On pg. 4-30, the analysis goes on to define areas where construction could encounter SJKF and evaluates potential project effects to their movement.

The “specific impact” heading of the comment summarizes the impact pathways and mitigation described in the Draft EIR/SEIS and does not identify any deficiencies in the analysis related to SJKF movement. The comment states that without appropriate avoidance and mitigation measures, the project could direct impact individual foxes by reducing reproductive success, thereby reducing the health and vigor of young, and direct mortality. Citing the 2019 USFWS biological opinion for the B.F. Sisk Dam SOD Modification Project, the Draft EIR/SEIS acknowledges that, “the loss and/ or degradation of annual grassland, valley foothill riparian, and blue oak woodland habitat could impact kit fox breeding, foraging, sheltering, and dispersal throughout the 8 to 12-year duration of the project.” In addition, the Draft EIR/SEIS state that, “SJKF would be affected by construction activities if animals are harmed or killed by equipment, their movement is blocked, or their dens or other habitat is altered or destroyed.” As suggested by the comment, potential direct effects to SJKF would be reduced through implementation of Mitigation Measure TERR-12, which are derived from the SJKF Survey Protocol for the Northern Range and the Standardized Recommendations for Protection of the SJKF.

In the “recommended analysis” portion of the comment, CDFW recommends that the Draft EIR/SEIS quantify and describe the direct and indirect potential impact to SJKF, including any impacts to the SJKF movement corridor and other conservation areas. We note that Draft EIR/SEIS and associated Appendices K1 and K2 (B.F. Sisk Safety of Dams Modification Project Biological Survey Report, 2018 and 2020) fully described the baseline condition for SJKF in the project area. SJKF habitat loss may occur in association with undeveloped upland habitats described in Table 3-6 (pg. 3-17). Under Alternative 3, habitat loss would include 337 acres of annual grassland, 4 acres of purple needlegrass grassland, and 55 acres of blue oak woodland. In addition, Mitigation Measure TERR-12 describes that SJKF could be affected by construction activities and subject to harm or mortality by equipment, blockage of movement corridors, and destruction of dens or other habitat.

CDFW further recommends that the evaluation include the cumulative impacts to SJKF from other existing, planned and potential development from south of the Los Banos Reservoir to north of the San Luis Reservoir. The comment did not identify a deficiency in the cumulative analysis related to SJKF. The draft EIR/SEIS provides a robust discussion of SJKF movement pathways on pg. 4-30 and cumulative effects on pg. 5-7. The Draft EIR/SEIS cumulative analysis for terrestrial biological resources provides an analysis of cumulative effects of the action alternatives (i.e., Alternative 2 and 3) taken together with other past, present, and reasonably foreseeable probable future projects on SJKF based upon the cumulative projects presented in Table 2 in Appendix O. Draft EIS/SEIS section 5.1.10 considered that construction activities for Alternative 3 could result in impacts on special status wildlife, wildlife movement, or wildlife habitat at San Luis Reservoir. Alternatives described for the San Luis Reservoir SRA RMP/GP, California High-Speed Rail Project, San Luis Transmission Project, San Luis Solar Project, and SLLPIP could have impacts on special status wildlife, include SJKF. However, Alternative 3 would implement Mitigation Measures TERR-12 to complete preconstruction wildlife surveys, implement avoidance requirements, train workers, and require species-specific compensatory mitigation measures to address unavoidable impacts to wildlife habitats. Mitigation Measure TERR-12 specifically includes wildlife movement elements that would reduce the incremental degradation of regional wildlife movement opportunities for SJKF by improving the condition of the wildlife corridor that crosses B.F. Sisk Dam, providing a new wildlife bridge over the dam spillway, and improving movement opportunities at the SR 152 causeway at Cottonwood Bay. This mitigation would reduce impacts to special-status wildlife to a less than significant level.

Recommended Mitigation Measure 4 (SJKF Surveys) states that CDFW agrees with the mitigation approach stated in the Draft EIR/SEIS. The comment is noted.

The commenter’s Recommended Mitigation Measure 2.5 states that if SJKF take cannot be avoided, that an ITP would be needed from CDFW. If take of SJKF is anticipated, SLDMWA would pursue take authorization with CDFW consistent with the comment.

Comment E-4

COMMENT 3: Foothill Yellow-Legged Frog (FYLF) and California Red-Legged Frog (CRLF)

Issue: FYLF are primarily stream dwelling and require shallow, flowing water in streams and rivers with at least some cobble-sized substrate; CRLF primarily inhabit ponds but can also be

found in other waterways including marshes, streams, and lagoons, and the species will also breed in ephemeral waters (Thomson et al. 2016). FYLF and CRLF have been documented to occur in the vicinity of the Project site (CDFW 2020). The Project site contains habitat that may support both species. Avoidance and minimization measures are necessary to reduce impacts to FYLF and CRLF to a level that is less than significant.

Specific impact: Without appropriate avoidance and minimization measures for FYLF and CRLF, potentially significant impacts associated with the Project's activities include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs, larvae and/or young, and direct mortality of individuals.

Evidence impact would be significant: FYLF and CRLF populations throughout the State have experienced ongoing and drastic declines and many have been extirpated; historically, FYLF occurred in mountain streams from the San Gabriel River in Los Angeles County to southern Oregon west of the Sierra-Cascade crest (Thomson et al. 2016). Habitat loss from growth of cities and suburbs, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators, such as bullfrogs are the primary threats to FYLF and CRLF (Thomson et al. 2016, USFWS 2017b). Project activities have the potential to significantly impact both species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to FYLF and CRLF, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 6: FYLF and CRLF Surveys

Mitigation Measure TERR-3 of the draft EIR/SEIS states that surveys will be conducted for CRLF, and Section 3.7.2.2 states that FYLF is considered unlikely in San Luis Creek. CDFW recommends that a qualified wildlife biologist conduct surveys for FYLF and CRLF in accordance with the USFWS "Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog" (USFWS 2005) to determine if FYLF and CRLF are within or adjacent to the Project area;

while this survey is designed for CRLF, the survey may be used for FYLF with focus on stream/river habitat.

Recommended Mitigation Measure 7: FYLF and CRLF Avoidance

If any FYLF or/and CRLF are found during pre-construction surveys or at any time during construction, consultation with CDFW is warranted to determine if the Project can avoid take. CDFW recommends that initial ground-disturbing activities be timed to avoid the period when FYLF and CRLF are most likely to be moving through upland areas (November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends a qualified biologist monitor construction activity daily for FYLF and CRLF.

Recommended Mitigation Measure 8: FYLF Take Authorization

If through surveys it is determined that FYLF are occupying or have the potential to occupy the Project site and take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization for the Authority would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b).

Response to Comment E-4

The comment states that without appropriate avoidance and minimization measures for foothill yellow-legged frog (FYLF) and California red-legged frog (CRLF), these species may be subject to potential significant impacts. The Draft EIR/SEIS acknowledges the presence of CRLF in portions of the project area, recognizes potential impacts to this species and its habitat, and provides appropriate mitigation to avoid and minimize impacts.

The FYLF is a stream-dwelling frog that occurs in perennial streams and rivers with rocky substrates. The only large stream in the project area is San Luis Creek, which is the southwest arm of the reservoir where no construction is proposed. This portion of the project area would be subject to inundation following reservoir completion. Within the comment, recommended Mitigation Measure 6 (FYLF and CRLF Surveys) suggests that the federal CRLF survey protocol, an 8-survey protocol that includes day/night surveys, be performed in San Luis Creek; and that this would accurately determine the presence or absence of FYLF in the creek. Based on a thorough biological survey that includes characterization of San Luis Creek, which was appended to the Draft EIR/SEIS (Appendix K-2), habitat for FYLF was not identified in the project area. A thorough assessment of all drainages around San Luis Reservoir, including San Luis Creek, found that “no permanent river sources are located within the inundation area to support this species.” In the absence of perennial, rocky stream habitat, FYLF is not expected in the project area. For this reason, further focused surveys are not warranted to establish the presence/absence of this species. CRLF are already known to intermittently use San Luis Creek, including areas within the reservoir footprint; therefore, the recommended survey would not establish the absence of CRLF in this area and is not warranted.

Recommended Mitigation Measure 7 (FYLF and CRLF Avoidance) states that if FYLF or CRLF are found during preconstruction surveys, consultation with CDFW would be warranted to avoid species take, and further suggests that ground-disturbing activities be timed to avoid the period when FYLF and CRLF are most likely to be moving through upland areas (November 1 to March 31). FYLF habitat does not occur within 5 miles of the construction areas, so coordination with CDFW is not anticipated for this species. CRLF is not a state-listed species, and any species relocation would be performed consistent with federal permit requirements. It is possible that ground disturbing activities may occur year-round. Consistent with the recommendation, Mitigation Measures TERR-3 provides many measures that will reduce project impacts on CRLF, including that a qualified biologist will be present within potential CRLF habitat.

For the reasons discussed above, Reclamation and SLDMWA do not anticipate the need for FYLF take authorization. However, if during CRLF surveys a FYLF is discovered, appropriate agency notifications and permitting will be initiated.

Comment E-5

COMMENT 4: Swainson's Hawk (SWHA)

Issue: SWHA have the potential to forage or nest near or on the Project site. The California Natural Diversity Database shows SWHA occurrences throughout the area near the Project site (CDFW 2020). In addition to annual grasslands, SWHA are known to forage in alfalfa, fallow fields, dry-land and irrigated pasture, rice land (during the non-flooded period), cereal grain crops (including corn after harvest), beet, tomato, and other low-growing row or field crops.

Specific impacts: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact is potentially significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits their local distribution and abundance (CDFW 2016). The Project as proposed, particularly construction of new facilities, will involve noise, groundwork, and movement of workers that could affect nests and foraging which has the potential to result in nest abandonment and decreased feeding, significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to SWHA, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the CEQA document prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 9: SWHA Surveys

CDFW agree with Mitigation Measure TERR-7 of the draft EIR/SEIS that surveys for SWHA will be conducted within 0.5 miles of construction areas. CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest and foraging sites prior to initiating ground-disturbing activities.

Recommended Mitigation Measure 10: SWHA No-disturbance Buffer

CDFW agree with Mitigation Measure TERR-7 of the draft EIR/SEIS that a minimum no disturbance buffer of ½-mile be delineated around active nests if construction cannot be limited to occur outside of the nesting season. CDFW recommends the 0.5-mile buffer be implemented until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Recommended Mitigation Measure 11: SWHA Foraging Habitat

Mitigation Measure TERR-7 of the draft EIR/SEIS states that SWHA foraging habitat loss within 1 mile of active SWHA nests will be compensated by preserving, in perpetuity, suitable foraging habitat at a ratio of 1 :1. CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (CDFG, 1994), which recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites and the amount of habitat compensation is dependent on nest proximity. In addition to fee title acquisition or conservation easement recorded on property with suitable grassland habitat features, mitigation may occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

Recommended Mitigation Measure 12: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected during surveys and the CDFW recommended ½-mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization for the Authority through the issuance of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Response to Comment E-5

The comment states that Swainson's hawk (SWHA) has the potential to forage and nest near or on the project site, which is recognized in the Draft EIR/SEIS. The comment notes that without appropriate avoidance and minimization measures, project activities could result in nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Potential impacts to SWHA foraging and nesting habitat are acknowledged in the Draft EIR/SEIS (pg. 4-29) and mitigation is provided to avoid, reduce, and mitigate effects to this species. The comment cites no deficiencies in the Draft EIR/SEIS analysis of potential SWHA effects or mitigation measures. However, it goes on to recommend four measures to protect SWHA. These recommendations are considered individually below.

Recommended Mitigation Measure 9 agrees with Mitigation Measure TERR-7 of the Draft EIR/SEIS that surveys for SWHA be conducted within 0.5 mile of construction areas. CDFW additionally recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee prior to project implementation. Reclamation and SLDMWA based the SWHA survey methodology in the Draft EIR/SEIS on CDFW guidance for the California High Speed Rail Project. For that project CDFW requires that a single pre-construction survey occur no more than 30 days prior to construction with an 0.5-mile survey buffer around each work area. The SWHA survey methodology presented in the Draft EIR/SEIS is consistent with CDFW permit requirements on other projects, and adequate to identify nesting SWHA in the project area.

Recommended Mitigation Measure 10 agrees with Mitigation Measure TERR-7 of the Draft EIR/SEIS that a minimum no disturbance buffer of 0.5-mile be delineated around active nests during the nesting season. The suggestion to add that the buffer should be maintained until after the nesting season, or until young birds have fledged is already provided in the measure, which avoids “active nests” during the breeding season.

Recommended Mitigation Measure 11 relates to Draft EIR/SEIS Mitigation Measure TERR-7, which provides that the loss of SWHA foraging habitat within 1 mile of active nests will be compensated at a ratio of 1:1. To reduce impacts to SWHA foraging habitat, CDFW recommends that compensation should occur for the loss of SWHA foraging habitat within 10 miles from known nest sites. Reclamation and SLDMWA will adopt this suggested approach in the Final EIR/SEIS. Mitigation Measure TERR-7 is revised in the Final EIR/SEIS.

Permanent foraging habitat losses (i.e., grasslands) within 10 miles of active Swainson’s hawk nests will be compensated by preserving, in perpetuity, suitable foraging habitat at a ratio of 1:1 as provided in CDFW’s Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (1994). This includes permanently disturbed construction sites. CDFW will approve the location and types of habitats preserved.

CDFW’s Recommended Mitigation Measure 12 considers SWHA take authorization. With adequate avoidance measures in place, Reclamation and SLDMWA do not anticipate the need for SWHA take authorization for the construction sites considered in the Draft EIR/SEIS. If take of SWHA is anticipated, SLDMWA would pursue take authorization with CDFW consistent with the comment.

Comment E-6

COMMENT 5: Tule Elk

Issue: Elk are California’s largest land mammal and an important wildlife resource whose population growth in recent decades has been of great interest to the public. Prior to non-indigenous settlement, it is estimated the elk population in California was more than 500,000 animals. Non-indigenous settlement decimated California’s elk populations. By 1872, only a few tule elk remained in the San Joaquin Valley. Conservation organizations and hunters were able to restore elk to the California landscape. Elk population growth since 1970 has been significant and California now supports approximately 5,700 tule elk (CDFW 2018). CDFW regional biologists have confirmed tule elk within and adjacent to the Project site. The Project has the potential to impact this species.

Specific impact: Tule elk are known to utilize the Project site and adjacent areas, especially below the B.F. Sisk Dam. Potential impacts to tule elk as a result of the Project includes loss of habitat, mortality resulting from vehicle collisions, and entanglement with fences and other structures. Without appropriate mitigation measures for tule elk, potentially significant impacts include loss of habitat.

Evidence impact is potentially significant: Habitat loss resulting from development or conversion to other land uses are the primary threat to tule elk. The Project site is within the range of tule elk and is utilized by tule elk based on CDFW population assessment surveys. As a

result, ground-disturbing activities associated with development of the Project site have the potential to significantly impact local populations of this species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to tule elk, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 13: Tule Elk habitat

The Project as proposed will result in the loss of tule elk habitat. CDFW recommends that tule elk habitat be conserved at a minimum 1 :1 ratio to the loss of habitat within the general vicinity of the Project site.

Recommended Mitigation Measure 14: Fencing

Increasing the storage capacity of the San Luis Reservoir may result in realignment to the perimeter fencing. Physical barriers such as fencing, mesh wire, panels, electric fence, and visual barriers (such as landscaping cloth hung between fence poles) have the potential to impact tule elk. CDFW recommends not utilizing physical barriers that may impede tule elk access to water, and foraging areas.

Response to Comment E-6

The comment is correct that tule elk are present within portions of the project site; however, tule elk are generally not present on the construction sites for the current action, which include the SR 152 causeway at Cottonwood Bay, B.F.Sisk Dam, and the Dinosaur Point day use area. Tule elk are commonly found on or below B.F. Sisk Dam; although before the current action starts, the dam will already be subject to development and earth disturbance by the B.F. Sisk Dam SOD Modification Project, and tule elk will have vacated the active construction area for that project. The comment does not cite a deficiency with the Draft EIR/SEIS analysis of potential effects to tule elk, but provides two recommended mitigation measures. Recommended Mitigation Measure 13 (Tule Elk Habitat) generally recommends that tule elk habitat be conserved at a minimum 1 :1 ratio to the loss of habitat within the general vicinity of the project site, and further recommends not utilizing physical barriers that may impede tule elk access to water, and foraging areas. Both federal and state lands surrounding San Luis Reservoir provide extensive habitat for tule elk. As illustrated in CDFW's "2020 San Luis Reservoir Hunt Zone Map" approximately 500,000 acres of habitat occurs within the San Luis Reservoir Hunt Zone (CDFW, 2020).¹⁴ Given that the project will impact about 396 acres of tule elk habitat, a decrease of 0.08 percent of the total, nearly 500,000 acres of tule elk habitat will remain and no significant impacts to tule elk habitat are anticipated. Also, no take would occur under the California Endangered Species Act, as tule elk are not a state-listed species. Hence, the suggestion to conserve lands at a 1:1 ratio is noted, but not needed to reduce tule elk habitat impacts to less than significant.

¹⁴ California Department of Fish and Wildlife. 2020. [2020 San Luis Reservoir Tule Elk Hunt, Hunt Overview brochure](https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=82931&inline) is available at following webpage: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=82931&inline>

No additional fencing is proposed that would limit tule elk movement or access to water and foraging areas. Therefore, Recommended Mitigation Measure 14 (Fencing) is not warranted.

Comment E-7

COMMENT 5 [sic]: Mountain lion

On June 25, 2019, a petition to list the mountain lion (*Puma concolor*), Southern California/Central Coast Evolutionarily Significant Unit (ESU) in Southern and Central California, as Threatened or Endangered pursuant to the California Endangered Species Act (California Fish and Game Code §§ 2050 et seq., "CESA") was submitted to the California Fish and Game Commission. Specifically, the petitioners requested listing as a "threatened species" for the ESU comprised of the following recognized mountain lion subpopulations: 1) Santa Ana Mountains 2) Eastern Peninsular Range 3) San Gabriel/San Bernardino Mountains 4) Central Coast South (Santa Monica Mountains) 5) Central Coast North (Santa Cruz Mountains) 6) Central Coast Central. In April 2020, Fish and Game Commission determined that the petitioned action "may be warranted" and established mountain lion within the proposed ESU as a candidate species under CESA. As a candidate species, mountain lion within the proposed ESU now has all of the protections afforded to an endangered species under CESA.

The Project site is adjacent to the Central Coast North ESU. Therefore, CDFW advises analyzing Project impacts to the subpopulation; CDFW advises including and referencing recent linkage studies on mountain lion that includes these six subpopulations of mountain lions in California. Based on this analysis, CDFW recommends the final EIR prepared for this Project include robust feasible avoidance, minimization, and mitigation measures to reduce impacts to mountain lion to less than significant.

Response to Comment E-7

The comment states that the project occurs within habitat for mountain lion, and states that the Draft EIR/SEIS analysis includes project impacts to the Central Coast North ESU subpopulation. The comment recommends including and referencing recent linkage studies on mountain lion that includes the six subpopulations of mountain lions in California and that the project include robust feasible avoidance, minimization, and mitigation measures to reduce impacts to mountain lion to less than significant. The Draft EIR/SEIS acknowledges the presence of mountain lion in the project region and the recent state candidate status for this species, which grants California Endangered Species Act protection. San Luis Reservoir is bound to the north, south, and west by well over 2 million acres of rugged undeveloped lands in the inner coast range that stretch approximately 50 miles to the north and over 150 miles to the south. Construction actions at the Dinosaur Point and SR 152 work sites, both of which are currently subject to extensive public access and vehicle use, would have an insubstantial effect on habitat for this species. As stated in the Draft EIR/SEIS Table 4-4 (pg. 4-32), reservoir inundation would affect 378.0 acres of upland habitat on the reservoir fringe, and therefore very slightly reduce habitat for mountain lion. Given the large home range of individual lions and the vast amount of natural habitat surrounding the reservoir, and connectivity to natural lands throughout the inner coast range, a comprehensive study of mountain lion habitat linkages is not warranted for the project. The comment does not suggest any potential mitigation measures to avoid or reduce impacts to mountain lion, and is therefore noted. Mitigation Measure TERR-12 will enhance movement opportunities for large mammals across the dam face. This measure provides a broad, 80- to 120-foot-wide earthen bridge over the mid-portion of the B.F. Sisk

Dam spillway to connect annual grasslands on either side of the spillway. This earthen wildlife movement bridge is expected to facilitate the movement of many species in the region, potentially including mountain lion.

Comment E-8

COMMENT 6: Riparian Impacts

Issue: The increased storage capacity as a result from the additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam SOD Modification Project will impact riparian habitat and associated species throughout the San Luis Reservoir. A hydrologic study or other information may be needed to identify and analyze the impacts of the removal of riparian woodland around the San Luis Reservoir, and the species supported by these habitats.

Specific Impact: Watershed and habitat protection are vital to the CDFW's management of California's diverse fish, wildlife, and plant resources. The various riparian zones around the San Luis Reservoir (i.e. San Luis Creek) supports riparian woodland habitat and associated annual grassland, and may potentially support several sensitive species listed as threatened or endangered under CESA and the Federal Endangered Species Act (FESA), as well as several State special-status species including California red-legged and foothill yellow-legged frog. CDFW is concerned that the loss of riparian habitat will result in direct and cumulative adverse impacts to these fish and wildlife and other public trust resources.

Recommended Analysis

CDFW recommends a hydrologic study or other information that identify and analyze the impacts to the riparian woodland and aquatic habitats around the San Luis Reservoir and the species supported by these habitats.

Study Plan

Where a project could affect the hydrologic regime of a watershed, the necessary elements to successfully maintain the biological diversity and avoid impacts to threatened and endangered species needs to be identified to facilitate sound management decisions. CDFW recommends the Lead Agency develop and implement a site-specific study to evaluate potential Project-related impacts to riparian habitat and determine appropriate measures to reduce impacts to a less than significant level. Mitigation Measure TERR-16b states that "a wetland mitigation and monitoring plan will be developed with CDFW, USAGE, or RWQCB to detail mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters due to construction activities and for other CDFW jurisdictional areas. The plan will quantify the total acreage affected; provide for mitigation to wetland or riparian habitat; specify annual success criteria for mitigation sites; specify monitoring and reporting requirements; and prescribe site-specific plans to compensate for wetland losses resulting from the Project consistent with the USACE's no net loss policy."

At a minimum, CDFW recommends the study plan include the following:

1. Analysis of any impacts to flows necessary to maintain the health and perpetuation of aquatic and riparian resources adjacent to the reservoir that result from Project activities.
2. A complete updated (within the last two years) assessment of the flora and fauna within, and adjacent to, the Project footprint with particular emphasis on identifying endangered,

threatened, and sensitive species and sensitive habitats. The assessment should be based on the findings of appropriate applicable protocol surveys to determine the presence or absence of special-status species within the Project footprint. These surveys should be conducted on the project site, including adjacent habitats.

3. A quantification of the loss of biological resources that will occur as a result of the inundation of riparian habitat and associated tributaries, and an evaluation of the impacts to resources.
4. A mitigation plan to replace lost plant, fish, and/or wildlife resources including, but not limited to the species or habitats described above. This plan must include a survey which quantifies the loss of resources that will occur as a result of this project. It must also specify measures that will be taken to offset impacts to resources and outline specific mitigation and monitoring programs.

Response to Comment E-8

Reclamation and SLDMWA appreciate CDFW's interest in describing riparian impacts and improving the wetland mitigation plan. The comment does not describe any deficiencies with Draft EIR/SEIS Mitigation Measure 16b, but provides several recommendations for the plan. CDFW's first recommendation asks for an analysis of impacts to flows needed to maintain riparian habitat adjacent to the reservoir. The reservoir will not affect riparian habitats above the high water inundation line, which are outside of the project area. Reclamation and SLDMWA have no control over the timing or magnitude of flows into the reservoir from such riparian habitat. Therefore, this recommendation is not adopted in the wetland mitigation plan.

The second recommendation asks for a complete assessment of flora and fauna in the project footprint, including within 378 acres of upland habitat and adjacent areas that do not support wetland habitat. An analysis of upland habitats and protocol-level surveys for endangered, threatened, and sensitive species would not improve or inform the wetland mitigation plan and is not warranted. Reclamation and SLDMWA have completed a wetland delineation and habitat mapping for the project area that includes much of the requested information related to characterizing sensitive habitats. This analysis also satisfies the third recommendation by CDFW. Given the availability of this baseline data, the second and third recommendations are not adopted into the Final EIR/SEIS.

The final recommendation requests a mitigation plan to replace lost plants, fish, and wildlife resources for the project as a whole. Habitat for individual species will be provided where appropriate through permit obligations, such as providing breeding habitat for California tiger salamander and California red-legged frog. Mitigation for impacts to habitat for such species is separately provided for each species. For example, Mitigation Measure TERR-3 describes obligations for creating new California red-legged frog mitigation ponds. Mitigation for wildlife effects is addressed separately and need not be covered by the wetland mitigation plan. No mitigation is needed or provided for impacts to fish, which the analysis shows are less than significant.

Comment E-9

Comment 7: CDFW-Owned and Managed Lands

CDFW Wildlife Areas are acquired for the protection and enhancement of habitat for a wide variety of species and are open to the public for wildlife viewing, hiking, hunting, fishing, and nature tours.

The construction and staging activities near CDFW lands could severely limit the wildlife and public use values of these lands as well as alter the way these lands are managed by CDFW. Most Wildlife Areas depend on visitor fees for operation, maintenance and management. CDFW has concerns that Project-related construction and staging activities may negatively impact the number of visitors to Wildlife Areas resulting in reduced revenues; thereby reducing or eliminating the future enhancement of public recreational opportunities and wildlife habitat provided by these areas.

Specific CDFW-owned lands that are in the Project vicinity include Cottonwood Creek Wildlife Area (Upper and Lower), San Luis Reservoir Wildlife Area, O'Neill Forebay Wildlife Area, Volta Wildlife Area, Los Banos Wildlife Area, North Grasslands Wildlife Area and Canada de los Osos Ecological Reserve. It is of note that the Cottonwood Creek, O'Neill Forebay, and San Luis Reservoir Wildlife Areas were set aside/created as USBR mitigation for the creation of San Luis Reservoir, and these lands appear to be those most likely to be directly impacted by the project. CDFW requests that the final EIR evaluate how construction, staging, and road/highway modification activities may temporarily or permanently impact public access and use of these Wildlife Areas in addition to potential resource impacts. It is of note that all of these properties are known to support state and federally listed species.

Response to Comment E-9

Section 4.11 and Appendix L of the Draft EIR/SEIS evaluates impacts of construction and operation of the action alternatives to recreational opportunities around the San Luis Reservoir. As shown in Figures 2 and 6 in Appendix L of the Draft EIR/SEIS, construction staging would occur outside the boundaries of the wildlife areas.

Comment E-10

Comment 8: Cumulative Impacts Related to High Speed Rail

The Bay Area to Merced alignment of the High Speed Train is also planned for the project area vicinity. The currently proposed High Speed Train alignment would run along Henry Miller Road to the east of the Project Area and ultimately would tunnel underneath the Cottonwood Creek Wildlife Area, in close proximity to B.F. Sisk Dam and possibly with overlapping staging, traffic, and road use/construction impacts. CDFW recommend that the draft EIR/SEIS evaluate the potential impacts of both the High Speed Train and the proposed Project being constructed simultaneously or in close proximity temporally. CDFW recommends related cumulative impacts to CDFW lands and biological resources also be analyzed and addressed.

Response to Comment E-10

Potential cumulative effects to biological resources are discussed in Draft EIR/SEIS section 5.1.10 (page 5-7, et seq.), Terrestrial Resources. The Draft EIR/SEIS considers potential cumulative effects of the proposed project and the California High Speed Rail Project for all biological resource impact categories. The Draft EIR/SEIS concludes that together the proposed project and California High Speed Rail Project under Alternative 3 could result in significant cumulative effects from the loss or adverse modification of wetland and riparian habitats, effects on special status wildlife, migratory birds, special status plants, and general effects on terrestrial wildlife and vegetation. The analysis further discusses the approaches that would be taken to reduce the loss or degradation of habitat and adverse effects to these resources. As stated in the Draft EIR/SEIS, with the implementation of mitigation measures stated in the document the incremental contribution to significant cumulative effects on these resources would not be cumulatively considerable.

Comment E-11

Comment 9: Fisheries and Aquatic Resources

The environmental impacts analysis for operations of the Dam Raise Alternative indicates increases in Delta exports during wet and above normal years, with Delta outflows generally decreasing during wetter years and increasing during drier years. However, it is difficult to interpret the model results for operational impacts to water quality and aquatic resources (Appendices D and J2) based on a limited description of the CalSim II analysis. CDFW recommends that the final EIR includes detailed documentation of the CalSim II model assumptions and methodology used to calculate and summarize the modeling results. Additionally, modeling results that include averages should also include estimates of variance to better evaluate the effect on fisheries resources. Fisheries resources respond to the immediate effects experienced rather than averaged effects over long periods of time. The use of long-term summarized averages without variance estimation or documentation of methodology obscures the true proposed Project impacts on fisheries resources.

While hydrodynamic changes can be used as proxies for aquatic habitat conditions, CalSim II should not be used in lieu of life cycle models and other appropriate tools developed to evaluate the effects of operational changes to fisheries and aquatic resources. CDFW recommends the following model analyses to evaluate effects of Project operations on fisheries:

Winter-run Chinook Salmon, Spring-run Chinook Salmon, Delta Smelt, Longfin Smelt:

- Channel Velocity (DSM2-HYDRO)
- Entry into Interior Delta
- Flow Routing into Channel Junctions

Winter-run Chinook Salmon and Spring-run Chinook Salmon:

- Current Sacramento River Temperature Model
- Martin 2017 Temperature Model
- Through-Delta Survival
 - Delta Passage Model
 - Newman 2003 (spring-run only)
 - Perry et al. 2018 STARS
- Life Cycle Models (winter-run only)
 - Interactive Object-oriented Salmon Simulation (IOS)
 - Oncorhynchus Bayesian Analysis (OBAN)
 - NMFS Winter Run Life Cycle Model (NMFS WRLCM)

Longfin Smelt:

- Kimmerer 2009 (outflow)

Delta Smelt and Longfin Smelt (habitat related, quantitative/qualitative analyses):

- Migration impedance and lost reproductive opportunity
- Changes in larval transport
- South Delta facilities-entrainment

- Microcystis
- Reduction in transport of food web materials
- Sediment removal and changes in turbidity

Response to Comment E-11

CDFW recommends that the Final EIR includes detailed documentation of the CalSim II model assumptions and methodology used to calculate and summarize the modeling results. Appendix J2 of the Draft EIR/SEIS has been updated to provide additional detail regarding CalSim II modeling methods and assumptions.

Reclamation and SLDMWA agree that reporting on the variance of modeling results is important to evaluate the true impact to fish species. Including the variance along with the mean monthly differences across water years would not allow for better interpretation of results, however. Table 8 presented in Appendix J2 of the Draft EIR/SEIS describes the mean monthly difference for each alternative alongside the maximum monthly difference. This was identified as the clearest way to present the most extreme impact of the project on hydrologic variables, not just the mean difference. This captures the variance for interpreting impacts to fish species.

CalSim II is not used in lieu of the life cycle modeling. Instead, potential effects on hydrodynamics are analyzed using hydrologic indicators to assess if there are significant impacts to hydrology. If significant changes in hydrodynamics would occur that would be reflected in changes in the hydrologic indicators, and application of life cycle models would be warranted to further explore the impact of the B.F. Sisk Dam Raise and Reservoir Expansion Project on fish species. In this case the use of life cycle models is not necessary, because the CalSim II model, which provides the flow inputs to most of these life cycle models, predicted only very small changes in flows as a result of the B.F. Sisk Dam Raise and Reservoir Expansion Project. Modeled fish demographics that would result from these small flow differences are therefore also predicted to be insubstantial.

Comment E-12

Comment 10: Cumulative Impacts Related to Los Vaqueros Reservoir Expansion

The Los Vaqueros Reservoir Expansion Project is anticipated to be constructed and in operation before completion of the Project. This project could result in long-term changes to Delta operations, provide CVP operational flexibility, and increase refuge water supply deliveries to south-of-Delta refuges. CDFW recommends that the cumulative effects analysis for water quality (Section 5.1.1) and surface water supply (Section 5.1.2) include the Los Vaqueros Reservoir Expansion Project as a reasonably foreseeable project that could contribute to cumulative impacts.

Response to Comment E-12

In response to this comment, the water quality and water supply cumulative analysis in the Final EIR/SEIS has been updated to evaluate the cumulative effects of Los Vasqueros Expansion Project on the B.F.Sisk Dam Raise and Reservoir Expansion Project.

Comment E-13

II. Editorial Comments and/or Suggestions

Fully Protected Raptors: The fully protected bald eagle and golden eagle are known to nest and forage in the vicinity of the Project site. Projects within occupied territories have the potential to significantly impact the species. CDFW recommends that focused surveys be conducted by experienced biologists prior to Project implementation. To avoid impact to the species, CDFW recommend incorporating survey protocols developed by CDFW (CDFG, 2010) and the USFWS (USFWS, 2010). Mitigation Measure TERR-8 of the draft EIR/SEIS states that if active nests are identified, a minimum 660-foot to 0.5-mile buffer zone depending upon visibility and severity of the activity will be implemented. In the event that either species are found within 0.5-mile of the Site, CDFW recommends that a qualified wildlife biologist be on-Site during all ground disturbing/construction related activities and that a 0.5-mile no-disturbance buffer be put into effect. If the 0.5-mile no-disturbance buffer cannot feasibly be implemented, contacting CDFW to assist with providing and implementing additional avoidance measures is advised. CDFW recommend these mitigation measures for fully protected raptor species be addressed in the final EIR prepared for the Project.

Response to Comment E-13

In addressing this comment and in coordination with the USFWS, the Final EIR/SEIS Mitigation Measure TERR-8 has been updated to reflect that an Eagle Conservation Plan would be developed and subsequently approved by USFWS before construction begins. Eagle nest avoidance buffers would be 660 feet to 2 miles, depending on the type of activity, as specified in the USFWS's Recommended Buffer Zones for Human Activities around Nesting Sites of Bald Eagles in California and Nevada and the USFWS Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada (USFWS 2017a and USFWS 2017b). If active eagle nests are identified and avoidance guidelines cannot be feasibly implemented, then coordination with the USFWS would be warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an Eagle Take Permit by the USFWS would be necessary.

Comment E-14

Lake and Streambed Alteration: Project activities include levee modifications to the banks of the San Luis Reservoir via fill to a section of State Route 152 where it crosses over Cottonwood Bay between milepost MER R5.239 and MER R5.806, fill to State Route 152 at milepost MER R6.295, and fill to raise a levee at Dinosaur Point. Therefore, the Project is subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires the Authority to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake; or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent, such as the unnamed stream within the Project site, as well as those that are perennial in nature.

For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593. It is important to note, CDFW is required to comply with CEQA, as a Responsible Agency, when issuing a Lake or Streambed Alteration Agreement (LSAA). If inadequate, or no environmental review, has occurred, for the Project activities that are subject to notification under Fish and Game Code section 1602, CDFW will not

be able to issue the Final LSAA until CEQA analysis for the project is complete. This may lead to considerable Project delays.

Response to Comment E-14

Reclamation and SLDMWA understand that a Lake and Streambed Alteration Agreement will be required pursuant to Fish and Game Code section 1600 et seq., which is reflected in the substantive analysis and mitigation of project activities and potential impacts in the Draft EIR/SEIS.

Comment E-15

Water Rights: CDFW recommends the final EIR address whether the Project proponents anticipate applying for the water rights associated with the proposed increase in storage capacity for the reservoir. CDFW recommends the final EIR address how the Project will affect existing water rights including those associated with the Central Valley Project (CVP) and State Water Project (SWP) water supply, pre-1914 appropriative rights, riparian rights, prescriptive rights, and appropriative rights approved under licenses and SWRCB WR Orders.

Project-related diversions to storage may impact riparian, wetland, fisheries and terrestrial (upland) wildlife species and their habitats. As stated previously, CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Given the potential for impacts to sensitive species and their habitats, it is advised that consultation with CDFW occur well in advance of any SWRCB water right application process.

Response to Comment E-15

A discussion of potential effects on surface water supply was provided in Draft EIR/SEIS Section 4.2, Surface Water Supply. Additionally, as stated in Draft EIR/SEIS Section 6.8.7 (pg. 6-7), Reclamation and SLDMWA will coordinate with the SWRCB regarding affected water rights.

Comment E-16

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, CTS, SJKF, and CRLF. Take under FESA is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

Response to Comment E-16

Reclamation intends to consult with the USFWS regarding the species named above, consistent with the requirements of the federal Endangered Species Act. The comment does not relate to the adequacy of the Draft EIR/SEIS analysis and is noted.

Comment E-17

Carried-over Water: The Investor-Directed Storage Subalternative on page 2-10 states, "Investors could forego delivery of their allocated CVP Project water for delivery in subsequent year(s). This unused CVP Project water would be carried-over to subsequent year(s) and continue to be stored in San Luis Reservoir until investor requests delivery of the water without the risk of "spill." However,

footnote 6 defines carried-over water as " . . . Rescheduled Water. Rescheduled Water is defined as allocated CVP water carried over to subsequent water year(s) by the water contractor pursuant to Reclamation's then-current Rescheduling Guidelines. The water contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation)." These two statements seem contradictory of each other and CDFW requests clarification on the description of carried-over water and the risk of "spill."

Response to Comment E-17

As explained in the Draft EIR/SEIS, additional carried over water under the CVP-only Storage subalternative would be subject to spill based on priority detailed in the current Reclamation rescheduling guidelines.

Under the Investor-directed Storage subalternative, carried over water would be stored in the increased capacity of San Luis Reservoir and would not be subject to Reclamation rescheduling guidelines, including spill.

Comment E-18

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals>.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). CDFW appreciates the opportunity to comment on the Project to assist the Authority and Reclamation in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact Jim Vang, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 254, or by electronic mail at Jim.Vang@wildlife.ca.gov.

Response to Comment E-18

Public Resources Code Section 21003(b) states a general state policy on how CEQA should be implemented. Following release of the Final EIR/SEIS, the lead agencies anticipate reporting any special-status species and natural communities detected during field investigations to the California Natural Diversity Database (CNDDB).

SLDMWA will comply with all applicable regulations and pay the appropriate filing fee at such time as its Board may certify the Final EIR and a Notice of Determination is filed.

3.2.6 Comment Letter F, Michael Prowatzke, Western Area Power Administration

Comment F-1

The Western Area Power Administration (WAPA) appreciates the opportunity to comment on the proposed B.F. Sisk Dam Raise Project. In light of WAPA's mission to market and deliver clean, renewable, reliable, cost based federal hydroelectric power and related services, we provide the following comments, with particular concern toward the interest of Central Valley Project (CVP) power stakeholders.

1. WAPA contends that the added power demand is not "less than significant", as the document states in section 4.14.5.3, based on the information provided. The authors submit that the "increase in power demand [for pumping/filling] is projected to be 46,475,000 megawatt-hours per year", and that the "existing 10,600 megawatts of production capacity in the Western Area Power Administration system can meet this increased demand". Clarification of these figures is in order, as the CVP has an installed capacity of approximately 2,000 megawatts, not 10,600 megawatts. This corrected number would provide a maximum capacity of approximately 17,520,000 megawatt-hours per year (2,000 megawatts X 8,760 hours/year), which is well short of the projected increase in power demand. Even using the document's stated 10,600 megawatt capacity (or 92,856,000 megawatt-hours per year), the new requirement for pumping would consume over half the capacity of the CVP, and this is not a "less than significant" amount of added power demand.

Response to Comment F-1

Using the projected additional pumping and the power capacity at the Gianelli Pumping-Generating Plant, Pacheco Pumping Plant, and O'Neill Pumping-Generating Plant, the increase in power demand to fill the expanded reservoir is projected to be 46,475,000 kilowatt-hours per year. The Final EIR/SEIS has been updated to note "increase in power demand [for pumping/filling] is projected to be 46,475,000 kilowatt-hours per year, or 46,475 megawatt-hours per year." The Final EIR/SEIS has also been updated to note the maximum capacity of the San Luis generating unit is approximately 1,769,520 megawatt-hours per year (202 megawatts X 8,760 hours/year). The additional energy demand of 46,475 megawatt-hours per year required for filling the expanded reservoir would not exceed the capacity of 1,769,520 megawatt-hours per year provided by the San Luis generating unit. The additional demand would consume less than three percent of the capacity of the unit. The existing power capacity at Gianelli Pumping-Generating Plant, Pacheco Pumping Plant, and O'Neill Pumping-Generating Plant would be able to meet the increased power demand to fill the expanded reservoir and the additional pumping would not result in the depletion of local or

regional energy supplies. Therefore, updates to Section 4.14 of the Draft EIR/SEIS will not change the significance conclusions for public utilities, services and power.

Comment F-2

2. Regardless of what power source is used, WAPA recommends that the project proponents perform a system impact study to ensure that increased local demand would not cause any local power system reliability issues, or to determine whether any upgrades would be needed to handle this transmission and delivery requirement. This analysis should not only determine whether the local lines have a rated capacity to handle this load but also ensure that expected pumping times and increased power demand will not contribute to congestion on the local transmission network during critical times of the day/year.

Response to Comment F-2

As explained in the Draft EIR/SEIS, the CalSim II operations modeling for the B.F. Sisk Dam Raise and Reservoir Expansion Project does not forecast measurable changes to water surface elevations in upstream reservoirs (Shasta, Folsom, Oroville, and Trinity Reservoirs). Consequently, power demand is not expected to increase in other parts of the system. Additionally, as noted previously the increase in power demand at Gianelli Pumping Plant would be less than three percent of the generation capacity of the unit and this impact would be less than significant. The additional demand would consume less than three percent of the capacity of the unit. The existing power capacity at Gianelli Pumping-Generating Plant, Pacheco Pumping Plant, and O'Neill Pumping-Generating Plant would be able to meet the increased power demand to fill the expanded reservoir and the additional pumping would not result in the depletion of local or regional energy supplies. Therefore, a system-wide impact is not expected to occur due to the proposed project.

Comment F-3

3. Although the authors state that the “energy [demand for pumping] could be partially recaptured when water is released back into the forebay”, WAPA expresses concern that the document downplays the potential losses with respect to the CVP. While on the surface the claim of power recapture seems tenable, it overlooks two key system-related factors. First, the San Luis generating unit is on the CAISO system rather than the CVP system. As such, this increased pumping could represent greater “project use” and subsequently less base resource available to CVP power stakeholders. Second, since the San Luis Dam is operated by the State of California Department of Water Resources, and they may base their power releases on market conditions or other considerations that may not necessarily align with (CVP) project-related interests, this has potential to further reduce the “recaptured” benefit to CVP power stakeholders.

Response to Comment F-3

Following the CEQA Guidelines, impacts related to public utilities, services, and power would be considered significant if operation or construction of the project would result in adverse effects related to the depletion of local or regional energy supplies. As described in Response to Comment F-1, the existing San Luis generating unit capacity can meet the increased power demand required to fill the expanded reservoir and operations would not need to rely on any recaptured energy. As a result of the additional pumping there would be a small increase in use of CVP generated power and slight decrease in power available to CVP power stakeholders. As described in Response to Comment F-1, the existing power capacity at Gianelli Pumping-Generating Plant, Pacheco Pumping

Plant, and O'Neill Pumping-Generating Plant would be able to meet the increased power demand to fill the expanded reservoir and the additional pumping would not result in the depletion of local or regional energy supplies. In addition, the increased pumping would be necessary to achieve the project objectives.

Comment F-4

4. Finally, as this project seems to deliver a significant benefit to water users and seems to generate little power benefit (or even potentially a net loss to CVP power stakeholders), WAPA would like to confirm that reimbursable costs resulting from the proposed project would not be assigned to the power function but rather to water users who are the primary beneficiaries of the proposed project.

WAPA remains committed to working with the Bureau of Reclamation and welcomes the opportunity to discuss any or all of these comments. Please contact us if we can be of further assistance going forward.

Response to Comment F-4

A cost allocation for the federal and non-federal partners has been completed as part of the Feasibility Report completed for this project.

3.2.7 Comment Letter G, Jennifer Pierre, State Water Contractors

Comment G-1

The State Water Contractors ("SWC") on behalf of its member agencies, and the Metropolitan Water District of Southern California ("Metropolitan") have reviewed the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement ("Sisk Dam Raise Draft EIR/SEIS") analyzing the potential impact of raising the elevation of B.F. Sisk Dam and enlarging the San Luis Reservoir (herein referred to as "Water Supply Modification Project" or "Project") and submit this comment letter.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies, serving approximately 19 million people in portions of six counties in Southern California.

The DEIR/SEIS was prepared pursuant to the California Environmental Quality Act ("CEQA") and National Environmental Policy Act ("NEPA") by the Bureau of Reclamation (Reclamation) and San Luis & Delta Mendota Water Authority ("SLDMWA") as the respective NEPA and CEQA Lead Agencies. The proposed Project consists of constructing an additional 10-feet of crest height to the B.F. Sisk Dam, San Luis Reservoir beyond the approved 12-foot crest raise actions of the B.F. Sisk Dam Safety of Dams ("SOD") Modification Project ("SOD Modification Project"). The purpose of the proposed Project is to provide operational flexibility and water supply reliability for South-of-Delta Central Valley Project ("CVP") and State Water Project ("SWP"). However, the Department of Water Resources ("DWR") who operates the State Water Project is not serving as the CEQA lead agency for the Project even though the DWR was the lead agency for the initial Environmental Review for the SOD Modification Project.

As described in detail below, SWC and Metropolitan are concerned about the CEQA and NEPA analysis and conclusions contained in Reclamation and SLDMWAs' Sisk Dam Raise Draft

EIR/SEIS. While we are generally supportive of additional storage, the potential water supply impacts that this Water Supply Modification Project will have on the SWP are a significant concern.

The Draft EIR/SEIS and associated modeling shows that this Project will have a significant impact on the SWP operations, causing up to a 147,000 acre-feet reduction in annual SWP exports and up to a 148,000 acre-feet reduction in Oroville storage. At the same time, the impacts to SWP are likely not fully disclosed because the Draft EIR/SEIS does not consider the SWP's operations under its California Endangered Species Act (CESA) Incidental Take Permit (ITP) in the modeling conducted for the Project. The SWC and Metropolitan request that Reclamation and SLDMWA fully mitigate any impacts to the SWP so that this Water Supply Modification Project will have no redirected negative impacts, the full extent of which needs to be disclosed and analyzed in the Sisk Dam Raise Draft EIR/SEIS.

I. A Subsequent EIR Hides Impacts

Even though the Notice of Availability identified the Water Supply Modification Project as a subsequent EIR in the text of the notice, the Draft EIR is not titled as a subsequent EIR. SLDMWA's failure to title the Draft EIR/SEIS as a subsequent EIR is misleading. Informed decision making and public participation are fundamental purposes of the CEQA process. (Union of Med. Marijuana Patients, Inc. v. City of San Diego (2019) 7 Cal.5th 1171, 1184; Friends of the Eel River v. North Coast R.R. Auth. (2017) 3 Cal.5th 677, 711.) The title of the Draft EIR/SEIS tells the public that the SLDMWA is analyzing a new project from scratch when in reality, SLDMWA is attempting to utilize CEQA's subsequent review procedures applicable to projects that have already received environmental review. This is confusing, inaccurate, and in violation of CEQA's informational purpose. Furthermore, the Draft EIR/SEIR is devoid of any discussion explaining why a subsequent EIR is appropriate. Here the SOD Modification Project is solely for the purpose of seismic reinforcement and does not create water supply benefits, but the Water Supply Modification Project discussed in this Draft EIR/SEIS is for water supply purposes. These two projects happen to involve the same location (the B. F. Sisk Dam), but they are fundamentally different in their purposes, benefits, and as to most potential impacts.

Based on our review of the Draft EIR/SEIS, it is not clear whether SLDMWA has principal responsibility for carrying out the Project. For example, it is unclear whether SLDMWA has the authority to proceed with dam modifications, to approve actions that will increase water volume in the reservoir, or to undertake contractual modifications (if any) that may be needed to address increased reservoir volumes. It is also unclear whether SLDMWA can use the subsequent EIR procedures given that it was not lead agency for the SOD Modification Project, nor does it appear to be identified as a responsible agency in the SOD Modification Project EIR/EIS.

The Draft EIR/SEIS states that "As a connected action this EIR/SEIS uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR and considers the incremental impacts of action alternatives presented herein." However, by using this incremental baseline, the actual impacts of the Modification Project are not fully disclosed or analyzed.

Response to Comment G-1

The Draft EIR/SEIS and notices given regarding its preparation as a subsequent review document, and their description of the relationship of the proposed B.F. Sisk Dam Raise and Reservoir Expansion Project to the approved SOD Modification Project, including the Notice of Availability

(NOA) and Notice of Completion (NOC) for the Draft EIR/SEIS, comply fully with the requirements of CEQA as provided in Public Resources Code section 21166 and CEQA Guidelines Sections 15162 and 15087. These records clearly demonstrate the character of the EIR as a subsequent document under CEQA, and its appropriateness as such is evident from the commenter's own description of the proposed action as well as from the description of the project in the Draft EIR. The comment misconstrues the provisions of Public Resources Code section 21166 and CEQA Guidelines 15162 with regard to their substantive provisions and their relationship to agency roles in the CEQA process. Please refer to Master Response 1 for additional information regarding subsequent environmental review under CEQA and SLDMWA's role in relation to the proposed project.

Regarding the commenter's assertion that impacts of the B.F.Sisk Dam SOD Modification Project were not fully disclosed or analyzed, as explained in the Draft EIR/SEIS, the analysis uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR, which remains a current and accurate representation of existing conditions. The analysis of effects completed for the Proposed Action and Non-Structural Alternative presented in the Draft EIR/SEIS considers the incremental impacts of alternatives above the B.F. Sisk Dam SOD Modification Project.

Additional detail is also provided in response to this comment's assertions regarding SWP operations and reductions in Oroville storage levels in Response to Comment G-2.

Comment G-2

II. Draft EIR/SEIS indicates potential for significant impacts to SWP water supply.

The Draft EIR/SEIS and the associated modeling indicate potential significant impacts to SWP. The modeling performed for this Project did not consider the 2020 California Endangered Species Act (CESA) Incidental Take Permit (ITP), and therefore, does not accurately represent existing SWP operations. The ITP limits CVP's use of SWP facilities under certain circumstances. It is important to recognize these nuances to accurately estimate potential impacts due to the Project. The modeling performed for the Project indicates potential reductions of up to 155,000 acre-feet annual SWP Table A deliveries, up to 50,000 acre-feet of SWP carryover deliveries and up to 137,000 acre-feet of SWP Article 21 deliveries. The modeling also indicates potential impacts to Oroville storage levels. The Project can also potentially cause water quality changes in the Delta resulting in impacts to SWP operations. The Draft EIR/SEIS incorrectly concludes that these impacts are not significant. Neither the project description nor the modeling assumptions included in the Draft EIR/SEIS describe how the expanded storage would be operated in coordination with ongoing SWP and CVP operations, especially under the investor-directed option. Operations of the expanded storage will require revisiting the December 2018 COA amendment between DWR and Reclamation. The Draft EIR/SEIS also does not analyze and disclose potential water supply impacts to SWP during the 8-year construction period. Finally, the Draft EIR/SEIS does not describe how these impacts to SWP will be mitigated.

Response to Comment G-2

The Draft EIR/SEIS relied on the CalSim II model to evaluate potential water supply effects from implementation of the Dam Raise Alternative subalternatives. The commenter has in this comment identified specific occurrences within the model results to assert that the modeling shows the potential for significant water supply impacts. The approach taken in this assertion is a misuse of the

model. Explanations specific to each of the events identified in the modeling results by the commenter are detailed in this response, following a brief description of the CalSim II model and its appropriate use for evaluating effects.

As was detailed by the California Department of Water Resources in testimony that it provided to the State Water Resources Control Board for its hearing on its and Reclamation's petition for a change in point of diversion for California WaterFix, the CalSim II model can be used to evaluate long-term operational tendencies or trends, and should not be used as the commenter has here, to interpret specific results in the model outputs as evidence of significant impacts.

CalSim II is a monthly model developed for a long-term planning level analyses over an 82-year simulation period (water year 1922 – 2003). CalSim II relies on generalized rules to provide a coarse representation of the project operations under adjusted hydrologic conditions to reflect future demands and land use, and it does not include specific operations in response to extreme events.

CalSim II model uses a set of pre-defined generalized balances/targets, collectively referred to as rules, which reflect the assumed regulations and are used to specify the operations of the CVP/SWP systems. These generalized rules have been developed based on historical operational trends and on limited CVP/SWP operator input and only provide a coarse representation of the project operations over the hydrologic conditions considered. These rules are often specified as a function of year type or a prior month's simulated storage or flow condition. The model has no capability of adjusting these rules to respond to specific events that may have occurred historically, e.g., extreme droughts, levee failures, fluctuations in barometric pressure that may have affected delta tides and salinities, facility outages, etc. Thus, results should not be expected to exactly match what operators might do in a specific month or year within the simulation period since the latter would be informed by numerous real-time considerations. Rather, results are intended to be a reasonable representation of long-term operational tendencies or trends. Under stressed water supply conditions, given the generalized nature of specified operations rules, CalSim II model results should only be considered as an indicator of stressed water supply conditions, and should not necessarily be understood to reflect literally what would occur in the future under a given scenario. CalSim II also does not account for the compromises and temporary arrangements that are made among stakeholders during such dry circumstances. In reality the operations are managed in close coordination with various regulatory agencies and stakeholders under such extreme circumstances (DWR 2017).

Specific to the comment on considering the 2020 ITP in the modeling, a sensitivity level evaluation of the potential changes to operation of the No Project/No Action Alternative condition as well as the CVP Only Storage subalternative was completed. The sensitivity analysis focused on the CVP Only Storage subalternative given that it had the potential to generate the largest changes in SWP water supply deliveries. The sensitivity evaluation determined that with incorporation of the 2020 ITP, potential adverse impacts to SWP operations and deliveries from implementation of the Dam Raise subalternatives would be smaller in magnitude than the impacts presented in the Draft EIR/EIS. Specifically, the negative effect on SWP deliveries identified in the Draft EIR/SEIS would be reduced by approximately 40 percent for Table A deliveries, while CVP water supply deliveries would be unchanged. As such, the sensitivity analysis confirmed the conclusions in the Draft

EIS/SEIS and found that impacts on SWP operations determined in the Draft EIR/SEIS to be less-than-significant would be even smaller in magnitude with incorporation of the 2020 ITP.

Under the No Project/No Action Alternative presented in the Draft EIR/SEIS, CVP supplies that cannot be diverted due to the lack of CVP south of Delta storage capacity are diverted by the SWP instead, as surplus supply. Implementation of the Dam Raise subalternatives allows the CVP to recover some of these CVP supplies, thereby reducing the surplus supply available for the SWP's diversion. The sensitivity evaluation determined that inclusion of the 2020 ITP in the baseline (i.e. No Project/No Action Alternative), would reduce the SWP's ability to divert these surplus supplies due to regulatory limits on diversions in the months these supplies would typically be available. Consequently, there would be an overall reduction in Table A SWP supplies if the 2020 ITP was included in the baseline when compared to the No Project/No Action Alternative presented in the Draft EIR/SEIS. Given this reduction in baseline Table A SWP water supply deliveries with inclusion of the 2020 ITP, the effect reported in the Draft EIR/SEIS from implementation of the Dam Raise subalternatives on SWP deliveries would be smaller.

Regarding the comment on evaluating potential impacts to Oroville storage levels, Section 4.2 of the Draft EIR/SEIS and Appendix D present simulated storage levels in Oroville under the action alternatives. As explained in the Draft EIR/SEIS, the Proposed Action is not expected to result in significant changes to water surface elevations in upstream reservoirs (Shasta, Folsom, Oroville, and Trinity Reservoirs). CalSim II modeling results show that on average, the monthly difference in Oroville storage and elevations between the No Project/No Action Alternative and the Proposed Action is less than 0.1%. This difference in Oroville storage between No Project/No Action and Proposed Action conditions is greater in certain months, but still less-than-significant and within the predictive model's accuracy levels of 5%.

Specific to the 148,000 acre-foot reduction in Oroville storage noted in comment G-1, that reduction is identified in one month, June 1970, in the CalSim II model results for the CVP Only Storage configuration of the Dam Raise Alternative. CalSim models Oroville and SWP storage in San Luis Reservoir as an integrated operation. As is indicated in Figure 3-1 below, in 1970 under the Dam Raise Alternative CVP Only Storage Subalternative, the model shifts water supply stored in Oroville south to San Luis Reservoir starting in July where it is then made available for delivery to SWP water users. Storage in Oroville then begins to refill starting in November. This normal operation of Oroville and San Luis Reservoir in an integrated fashion results in less-than-significant "snapshot" reductions in storage and does not represent a significant impact on water supply.

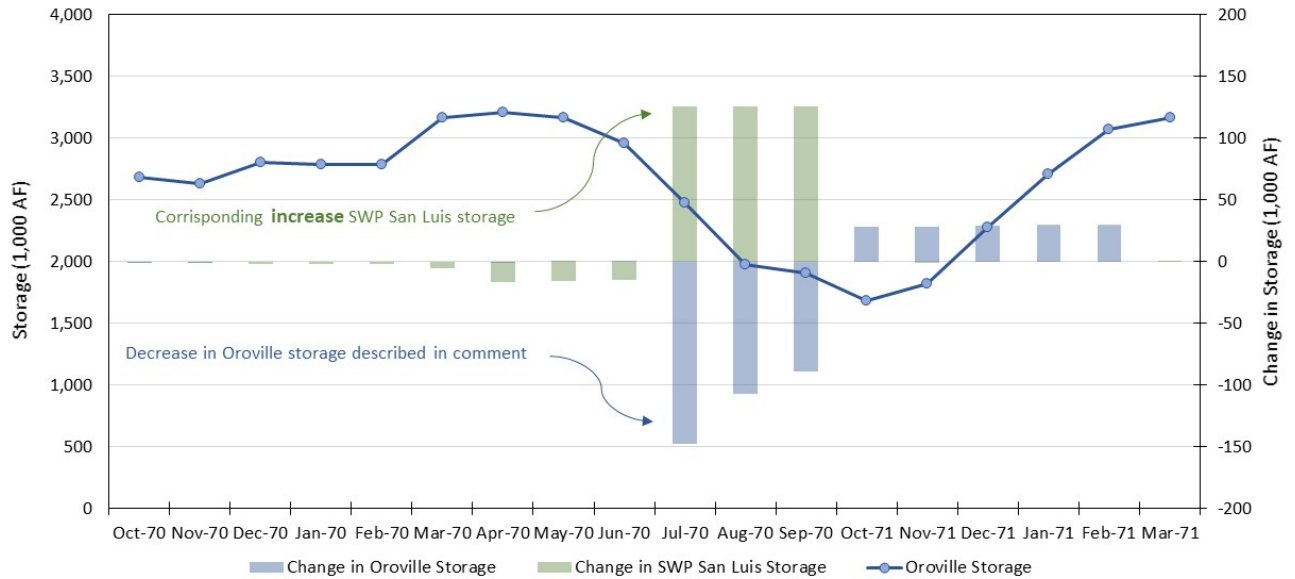


Figure 3-1. Modeled Changes in Oroville Storage in 1970

Regarding the comment on reductions in SWP Table A deliveries with implementation of the Alternative 3 subalternatives, and specifically the 155,000 acre-feet reduction in annual deliveries identified by the commenter, the less-than-significant reductions identified in the modeling primarily occur in wet water year types and represent small changes on a percentage basis. Figure 3-2 indicates annual SWP water supply deliveries identified under the No Action Alternative over the full 82 year model record and how those deliveries would compare to total SWP water supply deliveries (Table A, Article 21 and Article 56) under the CVP Only Storage Subalternative. As indicated above, this subalternative would generate the largest changes in SWP deliveries, although still less-than-significant.

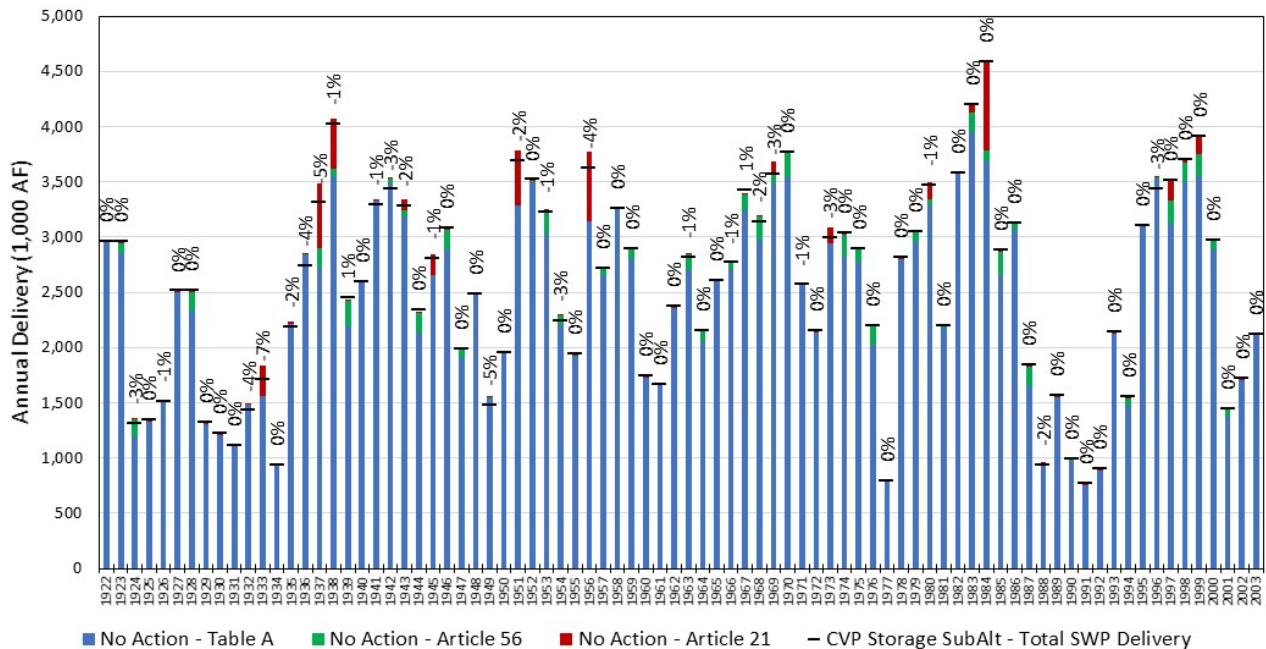


Figure 3-2. Modeled SWP Deliveries for the No Action Alternative and CVP Storage Subalternative

As is shown in Figure 3-2, the CalSim II model identified limited changes in SWP water supply deliveries under the CVP Storage Subalternative. In 29 of the 82 years the model identified small improvements in SWP deliveries. In 31 years, the model identified changes in deliveries of 0% (less than 0.5%). In 21 years, the model identified changes of less than 5%, and in only one year, 1933, were the changes forecast above 5%.

These forecasts include the changes in Table A deliveries in 1942 identified by the commenter. In that year, Table A deliveries are reduced by 155,000 acre-feet, but Article 56 deliveries increase by 46,000 acre feet, and the total change forecast in SWP deliveries is 3%. These model results were evaluated by the lead agencies during development of the Draft EIR/SEIS and again in response to this comment, and as was noted in the Draft EIR/SEIS, CalSim II relies on assumptions and approaches that contribute to minor fluctuations of up to 5%. Projected changes of less than 5% are within the model's predictive accuracy level and are not considered substantial adverse or beneficial water supply effects. This evaluation also considered the changes identified in 1933 (7%), which were determined to not contribute to a substantial reduction in annual water supply and were identified as less than significant. However, given this one occurrence in the modeling for potential, though insubstantial, reductions in SWP Table A deliveries, the Draft EIR/SEIS noted SLDMWA's commitment to reassess and confirm the less-than-significant potential for any SWP water supply reduction from subalternatives prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the subalternatives to ensure there will be no significant adverse effects.

Specific to reductions in Article 21 deliveries and SWP carryover deliveries (Article 56), the expanded reservoir, as is noted in the Draft EIR/SEIS, improves the CVP's ability to divert and

store its water supply from the Delta that reduces in some water years the availability of surplus water supplies for use by the SWP. The average reductions in these surplus supplies are noted in Appendix E of the Draft EIR/SEIS along with the acknowledgement that the availability of this surplus water in any particular year is uncertain, and contractors do not base long term water supply decisions based on the availability, or lack thereof, of this water.

Regarding the comment on evaluating water quality changes in the Delta resulting in impacts to SWP operations, Section 4.1 of the Draft EIR/SEIS and Appendix D evaluate water quality impacts under the action alternatives. As explained in the Draft EIR/SEIS, there are insubstantial changes to Delta water quality resulting from changes in Delta outflows compared to the No Project/No Action Alternative. Average annual changes to X2 would be less than 100 meters under all configurations. Therefore, operations under Proposed Action would be consistent with all environmental requirements pertaining to Delta operations. Additionally, as most of the additional CVP exports occur during wet conditions (and periods of Delta Excess), any resulting effects to salinity are insubstantial or not measurable. Over the long-term period of analysis changes in water quality are essentially zero and result in no additional SWP releases for water quality.

Regarding the comment on revisiting the December 2018 COA addendum between DWR and Reclamation, the action alternatives presented in Draft EIR/SEIS were formulated consistent with the December 2018 COA addendum between DWR and Reclamation. The CalSim II operations modeling of the alternatives is performed within the constraints of the 1986 COA and 2018 addendum and the results reported in the Draft EIR/SEIS are consistent with the terms of COA. Operations under the Proposed Action would be consistent with all terms of COA, including those pertaining to new projects and new operations. As indicated above and in the Draft EIS/EIR, SLDMWA has committed to reassess and confirm the less-than-significant potential for any SWP water supply reduction from subalternatives prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the subalternatives to ensure there will be no significant adverse effects.

Regarding the comment on evaluating water supply impacts during the 8-year construction period, as explained in Section 4.2 of the Draft EIR/SEIS, construction under the Proposed Action would occur in the same schedule described in the B.F. Sisk Dam SOD Modification Project EIS/EIR. Consequently, there would no additional changes to reservoir operations from construction under Project Action. Therefore, there would be no additional construction related impacts to SWP water supply beyond those presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR.

Comment G-3

III. Potential dam safety impacts are not analyzed and disclosed.

The DEIR/SEIS states that the "environmental consequences of the proposed alternatives were analyzed qualitatively" with respect to geology, seismicity, and soils. The impacts of constructing an additional 10-foot raise requires a quantitative, not qualitative, analysis. The effects of raising the crest of the existing B. F. Sisk Dam by 22 feet (12 feet by the SOD Modification Project and 10 feet by the Water Supply Modification Project) on the structural integrity of the dam and appurtenances requires defensive engineering in order to ensure its continuing security under both the gravity load and the design seismic events. The additional embankment and water loads resulting from the

additional ten-foot raise in storage could create significant adverse effects on the seismic performance of the B.F. Sisk Dam SOD Modification Project and requires a new seismic analysis.

DWR and USBR have performed over a decade of analyses and exploration to design the final Safety of Dams (SOD) modification for the existing dam configuration. The final SOD modification concept, including but not limited to berms, cutoff trench, drains, is designed to stabilize the embankment for the loads and saturation zones of embankment foundation associated with the current dimensions and the current maximum storage elevations. The additional embankment and water loads resulting from the additional 10-foot raise and expanded storage will potentially require the SOD modification design to be reevaluated. A totally new SOD stability analysis and design may be warranted and there is significant risk of considerable added expense and time delay to the ongoing SOD Modification work. Similarly, the added height of the massive concrete outlet towers and access bridge columns would need to be analyzed for the seismic stability.

Response to Comment G-3

It is acknowledged that the additional embankment materials and reservoir levels will create new loadings on the dam; the impact of these loadings is still being evaluated. As noted in the Draft EIR/SEIS, pre-design for the Dam Raise is expected to start in 2022 followed by construction in 2025. An evaluation of seismic stability is expected to be completed during the pre-design phase.

Comment G-4

IV. Constructability issues are not analyzed and disclosed.

Constructability issues such as availability of local borrow materials for the fill associated with the additional 10-foot dam raise have not been evaluated. Where would this borrow material come from? Do these activities create additional noise, traffic, and air quality impacts? These issues should be analyzed in the Draft EIR/S.

Response to Comment G-4

The Bureau of Reclamation completed a feasibility level design evaluation for the construction action associated with the B.F. Sisk Dam Raise and Reservoir Expansion Project. The design evaluation considered sourcing and availability of the borrow material. As explained in Section 2.2.3 and Appendix B of the Draft EIR/SEIS, approximately 1 million cubic yards of material would need to be sourced from commercial sources in the area for the Dam Raise construction action. The remaining approximately 15 million cubic yards of material for the Dam Raise construction action would be sourced from Basalt Hill and Borrow Area 6. For the SR 152 embankment modification, an estimated 1.1 million cubic yard of fill materials would be sourced from two borrow sites—Basalt Hill and Borrow Area 6. The embankment material availability analysis completed in support of the feasibility level design evaluation identified adequate material availability at the borrow areas to support these fill material requirements. The additional noise, traffic and air quality impacts associated with hauling material from Basalt Hill, Borrow Area 6 and the local commercial source have been evaluated in Section 4.6, Section 4.7 and Section 4.3 of the Draft EIR/SEIS, respectively.

Comment G-5

V. Impacts on existing infrastructure are not analyzed and disclosed.

The impacts to existing Gianelli infrastructure, largely pumps and generators, need to be evaluated and disclosed as they would be required to operate under a higher reservoir head under the Water

Supply Modification Project. The additional pumping load caused by the reservoir raise could potentially damage the valves and pumps/generators. Furthermore, potential impacts to Gianelli Plant's structural stability because of the expanded embankment should be analyzed, disclosed, and fully mitigated. The Water Supply Modification Project and associated dam raise and expanded storage are expected to increase the operations and maintenance costs of existing infrastructure for SWP. Additional energy use, greenhouse gas emissions and costs should be analyzed, disclosed, and mitigated.

Response to Comment G-5

The Bureau of Reclamation completed a feasibility level design evaluation for the construction action associated with the B.F. Sisk Dam Raise and Reservoir Expansion Project. That design evaluation considered, and did not identify the need for, modification to the Gianelli Pumping Plant. A more detailed evaluation of pump efficiency over the new operating range would be performed during the pre-design phase of the Dam Raise Project. The additional energy use and greenhouse gas emissions associated with increased pumping under the Proposed Action have been evaluated in Section 4.4 and Section 4.14 of the Draft EIR/SEIS respectively. Please see Response to Comment H-7 for additional information.

Comment G-6

VI. Impacts to SWP during construction of the Project are not analyzed and disclosed.

Adding the considerable construction time for the Water Supply Modification Project's 10-foot raise will add additional inconvenience and result in negative impacts to the normal SWP operations and recreation access. Adding the additional Sisk Dam raise will potentially cause significant delay in the construction time of the SOD Modification Project. These impacts need to be analyzed, disclosed, and fully mitigated.

Response to Comment G-6

As noted in response to Comment G-2, Section 4.2 of the Draft EIR/SEIS evaluates water supply impacts during the 8-year construction period associated with Proposed Action. Construction under the Proposed Action would occur in the same schedule as described in the B.F. Sisk Dam SOD Modification Project EIS/EIR. Consequently, there would no additional changes to reservoir operations from construction under Project Action. Therefore, impacts to the SWP during the construction period would be the same as the effects presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR.

Comment G-7

VII. Cumulative impacts of various ongoing planned storage projects by Reclamation should be analyzed and disclosed.

Reclamation and CVP contractors are simultaneously pursuing several expanded storage projects including Shasta Enlargement and Los Vaqueros expansion in addition to B.F. Sisk Dam raise. Each project individually and cumulatively will likely impact SWP operations. The Draft EIR/SEIS should analyze and disclose the fullest extent of the cumulative impacts of all the ongoing projects on the SWP.

It is clear based on the project description and the limited analysis presented in the Draft EIR/SEIS, there is the potential for impacts to the SWP during construction and operation of this Project.

Therefore, the project description should include this commitment: “The existence and extent of any SWP water supply reduction or other impacts from the B. F. Sisk Dam Raise and Reservoir Expansion Project (“Project”) will be assessed prior to construction, during construction and at the time that any new regulatory requirement or permit issued for the Project affects SWP operations. SLDMWA and USBR, shall avoid, mitigate, or offset, through measures agreed to by DWR and SWC, any SWP water supply reduction resulting from the Project operations or construction impacts. Any restrictions imposed on SLDMWA, USBR, or the CVP through permits or other regulatory approvals issued for the Project operations or construction shall not impact SWP water supply. This mitigation measure does not modify or impair the rights and obligations between USBR and DWR agreed to in other independent agreements.”

The SWC and Metropolitan appreciate this opportunity to comment and look forward to working with SLDMWA and Reclamation on this Project. Both the SWC (cchilmakuri@swc.org) and Metropolitan (jsafely@mwdh2o.com) also request that they be added to the notification and distribution lists for all CEQA notices, public meeting notices, and public meeting/hearing notices relating to the Project under CEQA and California’s open meeting laws. Should you have any questions, please contact Chandra Chilmakuri at 916-562-2583.

Response to Comment G-7

Chapter 5 of the Draft EIR/SEIS evaluates cumulative impacts of other storage projects such as Los Vaqueros Expansion and Pacheco Reservoir. As explained in Section 5.1.2 of the Draft EIR/SEIS, the Proposed Action could result in insubstantial reductions, less than 1% of total deliveries, to SWP contractors. These reductions under the Proposed Action are considered insignificant fluctuations within the CalSim II model’s level of predictive accuracy, given its need to rely on operational assumptions to characterize complex interactions between different components of natural and built environment systems. Therefore, the incremental contribution of the Proposed Action to significant cumulative SWP water supply impacts would not be cumulatively considerable.

As noted by the commenter, Section 4.2 of the Draft EIR/SEIS describes ongoing and continued coordination between the CVP and SWP and continued reassessment of effects on SWP operation prior to construction, during construction, and at the time that any new regulatory requirement or permit issued, to ensure that impacts anticipated to be less-than-significant in the Draft EIR/SEIS are confirmed as such. In response to this comment, these coordination requirements have been further described in Chapter 2, Proposed Action and Description of Alternatives.

The Final EIR/SEIS will be provided to each party that provided comments on the Draft EIR/SEIS.

3.2.8 Comment Letter H, Ted Craddock, California Department of Water Resources

Comment H-1

The California Department of Water Resources (DWR) has reviewed the San Luis and Delta-Mendota Water Authority (SLDMWA) and the United States Department of the Interior, Bureau of Reclamation’s Draft Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS) for the B.F. Sisk Dam Raise and Reservoir Expansion Project (Project) dated August 2020 and provides the enclosed comments. DWR appreciates the opportunity to comment on the

Draft EIR/SEIS and looks forward to working with SLDMWA and Bureau of Reclamation as the Project moves forward.

If you have any questions, please contact me at Ted.Craddock@water.ca.gov or your staff may contact David Duval, Chief of State Water Project Operations and Maintenance, at David.Duval@water.ca.gov.

Response to Comment H-1

This comment is an introductory summary. Responses have been provided below to all detailed comments in the submitted comment letter.

Comment H-2

2.2 Proposed Alternatives

Elements Common to all sub-alternatives.

1. On page 2-7, the Draft EIR/SEIS states the 10-foot raise would start during the final stages of the Safety of Dams (SOD) modification construction. The Project schedules require further analysis to optimize construction timelines to minimize impacts to reservoir operations. It is likely the final stages of construction for the SOD Modification Project will take until 2030 to complete. As a result, the schedule for completion and potential environmental impacts related to the extended timeline for construction (e.g., air quality and greenhouse gas emissions) need to be addressed in the EIR/SEIS.

Response to Comment H-2

The construction timeline evaluated in the B.F. Sisk Dam Raise and Reservoir Expansion Project EIR/SEIS is consistent with the timeline evaluated and presented in the B.F. Sisk Dam SOD Modification Project EIR/EIS. As noted by the commenter, if completion of the final stages of construction of the B.F. Sisk Dam SOD Modification Project were to take until 2030 this could result in a potential delay to the start of the B.F. Sisk Dam Raise and Reservoir Expansion Project given its planned completion alongside these final stages of the SOD project. This delay to potential start of the B.F. Sisk Dam Raise and Reservoir Expansion Project would not change the assumed construction equipment fleet mix or size and the 8-year duration of construction from what was evaluated in the Draft EIR/SEIS. Consequently, the air quality and greenhouse gas impacts identified in the Draft EIR/SEIS would not increase in magnitude.

Comment H-3

2. On page 2-7, the Draft EIR/SEIS states the fill materials would be sourced from two borrow sites – Basalt Hill and Borrow Area 6. The potential local borrow supply needs to be evaluated further to ensure sufficient materials are available for the Project. The EIR/SEIS should evaluate whether materials (quarried rock and sand) may be available onsite, after the SOD Project is completed. If additional materials cannot be acquired onsite for the Project, then additional analysis of offsite material resources needs to be included in the EIR/SEIS.

Response to Comment H-3

As noted in response to Comment G-4, borrow material for the Dam Raise and SR 152 actions would be sourced from Basalt Hill and Borrow Area 6 with additional material from commercial sources in the area.

Comment H-4

3. Page 2-8, the Draft EIR/SEIS states postconstruction maintenance activities would not increase the frequency of maintenance workers being on-site compared to existing maintenance activities at BF Sisk Dam. DWR is responsible for the operation and maintenance of BF Sisk Dam. The EIR/SEIS should include the rationale or analysis which provides the factual basis for this statement and further assess impacts on DWR's maintenance activities and staffing during construction and in the long term.

Response to Comment H-4

Additional detail has been added to Section 2.2.3 of the Draft EIR/SEIS to clarify the basis for this assumption.

Comment H-5

4.1 Water Quality and 4.11 Recreation

4. The San Luis Reservoir experiences periodic algae blooms. The EIR/SEIS should evaluate potential for long-term changes to water quality as a result of the reservoir raise and/or any changes to operations of the reservoirs that could induce algae blooms. If the evaluation indicates algae blooms may be induced, potential impacts to recreation should be analyzed.

Response to Comment H-5

As described in Chapter 4 of the Draft EIR/SEIS, Alternative 3 configurations would provide increased average monthly storage levels in San Luis Reservoir (see Tables 32 through 39 in Appendix D of the Draft EIR/SEIS). Chapter 4 of the Draft EIR/SEIS also noted that higher storage levels would not change water quality or temperature of water stored in San Luis Reservoir. Therefore, operation of the Alternative 3 configurations would not lead to an increase in the frequency or magnitude of algae blooms when compared to existing conditions. As explained in Chapter 4 of the Draft EIR/SEIS, impacts to water quality and recreation resources resulting from changes to storage levels would be less than significant.

Comment H-6

4.2 Surface Water Supply

5. Potential water supply effects were estimated by using the CALSIM II model. The CALSIM II modeling and other analyses show there is the potential for impacts to the State Water Project (SWP). Given the importance of effective coordinated operations of the Central Valley Project (CVP) and SWP, the existence and/or extent of any SWP water supply reduction from the Project will be reassessed prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the Project affects SWP operations. SLDMWA, through these reassessments and ongoing coordination of operations between Bureau of Reclamation (Reclamation) and DWR, should avoid, mitigate, or offset, through measures agreed to by DWR, any significant SWP water supply reduction resulting from the Project operations or construction impacts. Any adaptive management measures or restrictions imposed on SLDMWA, Reclamation, or the CVP through permits or other regulatory approvals issued for Project operations will be coordinated with DWR consistent with the rights and obligations of and between Reclamation and DWR agreed to in other independent agreements.

The EIR/SEIS should evaluate the potential water supply impacts to the SWP and if recent operational agreements between Reclamation and DWR with resource agencies may need to be re-negotiated to utilize the expanded storage available with the Project. If re-negotiations and new agreements between agencies are warranted, the environmental impact of expanded mitigation or compliance measures for resource agency permits should be addressed.

Response to Comment H-6

The Draft EIR/SEIS evaluates potential water supply impacts to the SWP and as described in Section 4.2 of the Draft EIR/SEIS includes ongoing and continued coordination between CVP and SWP and continued reassessment of effects on SWP operation prior to construction, during construction, and at the time that any new regulatory requirement or permit issued to ensure that impacts anticipated to be less-than-significant in the Draft EIR/SEIS are confirmed as such. is issued. In response to this comment, these coordination requirements have been further described in Chapter 2, Proposed Action and Description of Alternatives.

Comment H-7

4.14 Public Utilities and Power

6. On Page 4-46, the Draft EIR/SEIS Section 4.14.5.3 Operation of Alternative 3 states that Alternative 3 would increase demand on existing pumps at Gianelli Plant by approximately 10% in years when the new reservoir space is filled. The existing Gianelli Plant's pumps/generators need to be evaluated to ensure they can operate under a higher reservoir head during generation and/or pumping. If the Gianelli pumps/generators are insufficient, the EIR/SEIS needs to analyze the additional environmental impacts of adding new and/or different pumping/generating facilities to meet operational need.
7. Currently, only three of the eight units can "top off" the filling of the reservoir without potential cavitation. The additional pumping load caused by the reservoir raise could accelerate cavitation damage to both the valves and pumps/generators. Similar to the comment above, if new pumps/generators are required, the EIR/SEIS needs to address if new facilities will be required and/or if those facilities can be accommodated onsite and if there are potential environmental impacts of new facilities.

Response to Comment H-7

The Bureau of Reclamation completed a feasibility level design evaluation for the construction action associated with the B.F. Sisk Dam Raise and Reservoir Expansion Project. That design evaluation concluded there is no need for modification to the Gianelli Pumping Plant. A more detailed evaluation of pump efficiency over the new operating range including the potential for cavitation would be performed during the pre-design phase of the Dam Raise Project.

The Gianelli Pumping Plant has 8 pumps with a rating of 63,000 horsepower (hp) per pump, with a total power rating of 504,000 hp. The Pacheco Pumping Plant has 12 pumps with a rating of 2,000 hp per pump, with a total power rating of 24,000 hp. Using the projected additional pumping and the power capacity at the Gianelli Pumping Plant and Pacheco Pumping Plant, the increase in power demand to fill the expanded reservoir is projected to be 46,475,000 kilowatt-hours per year, or 46,475 megawatt-hours per year. It is expected that the additional 46,475 megawatt-hours per year required for filling the expanded reservoir would not exceed the capacity of 1,769,520 megawatt-

hours per year provided by the San Luis generating unit. The additional demand would consume less than three percent of the capacity of the unit and would not require adding new pumping facilities.

Comment H-8

8. Raising the crest while maintaining a sufficient crest width for maintenance access could require the extension of the downstream face which could encroach on the Gianelli Plant. This resulting configuration and loading condition need to be evaluated. The EIR/SEIS needs to evaluate if the additional dam raise would require physical relocation and/or re-configuration of Gianelli pumping plant that may have potential environmental impacts.

Response to Comment H-8

The Bureau of Reclamation completed a feasibility level design evaluation for the construction action associated with the B.F. Sisk Dam Raise and Reservoir Expansion Project. The design evaluation included in-kind replacement of the maintenance road on the B.F. Sisk Dam crest. The design evaluation also considered the need to upgrade the Gianelli pumping plant depending on the height of capacity increasing alternatives analyzed. That design evaluation did not identify the need for modification to the Gianelli Pumping Plant due to encroachment of the downstream face of the new embankment. However, the design evaluation recommended a more detailed evaluation of pump efficiency over the new operating range including the potential for cavitation. This evaluation would be performed during the pre-design phase of the Dam Raise Project.

Comment H-9

Dam Safety

9. Reclamation is evaluating the Project as a connected action to Reclamation and DWR's B.F. Sisk Dam SOD Modification Project. DWR agrees the proposed Project is an independent action to the SOD Modification Project.

Response to Comment H-9

The Proposed Action has elements of independent utility from the SOD Modification Project but is being evaluated as a connected action under NEPA for the reasons described in the Draft EIR/SEIS and in Master Response 1. The Draft EIR/SEIS evaluates the Proposed Action in the manner most likely to result in full disclosure of potential impacts and identification of measures to avoid or substantially reduce any potentially significant impacts to the extent feasible. Please see Master Response 1 for additional information.

Comment H-10

10. The Project's additional expansion of reservoir and water loads resulting from the 10-foot raise in storage may require revisions to the SOD modification design. DWR and Reclamation have performed over a decade of analyses and exploration to design the final SOD modification for the existing dam configuration. The final SOD modification concept (berms, cutoff trench, drains) is designed to stabilize the embankment for the loads and phreatic surface (saturation zones of embankment/foundation) associated with the current dimensions and maximum storage elevations. A new SOD stability analysis and design may be warranted and will require review by the independent consulting review board and may require additional time to the SOD modification design work. Similarly, the added height of

the outlet towers and access bridge towers may require further seismic analysis. The EIR/SEIS should evaluate the new potential impacts on the underlying soils, geology, and hydrology in front of the dam resulting from the proposed Project as a result of expanded project disturbance areas (larger footprint) near the base of the dam.

Response to Comment H-10

As noted in response to comment G-3, the additional embankment materials and reservoir levels will create new loadings on the dam. The impact of these loadings on the seismic stability of the B.F. Sisk Dam is still being evaluated and is expected to be completed during the pre-design phase of the B. F. Sisk Dam Raise and Reservoir Expansion Project.

Comment H-11

11. Considering the Project may increase the dam's inundation area, the Public Services, Utilities and Hazards sections of the EIR/SEIS should analyze the potential environmental impacts of a larger inundation area below the dam.

Response to Comment H-11

As explained in Chapter 2 of the Draft EIR/SEIS, the 10-foot increase in B.F. Sisk Dam under Proposed Action would inundate 445 acres of new land around the shore of the reservoir when the reservoir is full. This increase in inundation from operations of Alternative 3 (Proposed Action) is analyzed in Chapter 4 of the Draft EIR/SEIS. The increased inundation area has the potential to impact water quality, visual resources, terrestrial resources, and recreation. Inundation mapping illustrating the impact of inundation are included in Appendix L of the Draft EIR/SEIS. It is not expected that there would be any inundation impacts to public utilities and power or hazards and hazardous materials as there are no utilities within the mapped inundation area.

3.3 Individuals

3.3.1 Comment Letter I, Dennis Brazil, Former Mayor of City of Gustine

Comment I-1

It is not only common sense to raise the San Luis Dam, during its seismic construction, but also offers huge Benefits to all water users (Ag, Urban, Environment).

San Luis Dam, was built to store water and deliver water to all of its end users.

The cost of raising the dam, is a fraction of the cost to build a new dam.

Please listen to (us) the people of the San Joaquin Valley and the residents of California and users of this water, and raise the dam to increase capacity for water storage.

Response to Comment I-1

The comment is noted. The Final EIR/SEIS will be provided to each party that provided comments on the Draft EIR/SEIS.

3.3.2 Comment Letter J, Kevin Olds, Landowner in Dos Palos, California

Comment J-1

I am writing in favor raising San Luis Dam near Los Banos, CA. This additional storage will be big win for water security in our state. It will insure irrigation water for farms on the west side of the San Joaquin, as well as, provide water for water fowl that come through.

Please consider this proposal.

Response to Comment J-1

The comment is noted. The Final EIR/SEIS will be provided to each party that provided comments on the Draft EIR/SEIS.

3.3.3 Comment Letter K, Scott M. Steward, Resident

Comment K-1

California is in critical need of additional water storage and this will help with the growing demands for California's shared water resources.

Raising the B.F. Sisk Dam for water supply during the Safety of Dam modifications is a smart, practical decision.

Response to Comment K-1

The comment is noted. The Final EIR/SEIS will be provided to each party that provided comments on the Draft EIR/SEIS.

3.3.4 Comment Letter L, Anonymous, Public Meeting Attendee

Comment L-1

If possible, could you address the "Operation of Dam Raise Alternative" section, in specific the "CVP/SWP Split Storage Alternative"? Since this is not a DWR/SWP project, why would this operational alternative be on this EIR?

Response to Comment L-1

The CVP/SWP Split Storage Subalternative is presented in the Draft EIR/SEIS to capture a range of stakeholder-requested configurations and cover the high- and low-end of potential environmental effects of operational variations.

Chapter 4 Errata Sheets

This chapter contains all text changes to the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft EIR/SEIS. Changes in text are signified by strikeouts where text is removed and by italics where text is added.

4.1 Executive Summary

Page ES-2

The second sentence in the first paragraph on page ES-2 of the Draft EIR/SEIS is revised as follows:

Later in the year, when CVP and SWP demand increases, water is released from San Luis Reservoir through O'Neill Forebay and conveyed via the DMC or the San Luis Canal (a joint-use CVP and SWP facility) and California Aqueduct for use by water contractors (Reclamation *and* DWR 2019).

The fourth sentence in the first paragraph on page ES-2 of the Draft EIR/SEIS is revised as follows:

Water is also diverted from the west side of San Luis Reservoir at the Pacheco Pumping Plant to supply water to two CVP contractors, the Santa Clara Valley Water District (~~Valley Water District (Valley)~~), ~~and the San Benito County Water~~, ~~and the San Benito County Water~~ (Reclamation *and* DWR 2019).

The first and second sentences in the second paragraph on page ES-2 of the Draft EIR/SEIS is revised as follows:

The B.F. Sisk Dam SOD Modification Project is a federal project that has the potential to influence water supply conditions in San Luis Reservoir *by decreasing high seismic risk*. In 2006, *United States Department of Interior, Bureau of Reclamation* (Reclamation) completed a risk analysis of B.F. Sisk Dam that concluded there is justification to take action to reduce risk to the downstream public from a potential severe earthquake (Reclamation 2006).

The third paragraph on page ES-2 of the Draft EIR/SEIS is revised as follows:

~~As a potential funding source for the Proposed Action under the WIIN Act, and in accordance with the amended SOD Act,~~ Reclamation's ~~preliminary~~ *primary* purpose and need is to evaluate the feasibility report and determine if SLDMWA's request to increase water storage supply provides an additional benefit in conjunction with the current B.F. Sisk Dam SOD Modification Project, is consistent with Reclamation Law, can support a Secretary of Interior's finding of feasibility, has federal benefits pursuant to the WIIN Act, and can be accomplished without negatively impacting the B.F. Sisk Dam SOD Modification Project.

This preliminary purpose and need are based on the goals of SLDMWA and Reclamation's authority under the WIIN Act and the amended SOD.

Page ES-3

The second and third paragraph on page ES-3 of the Draft EIR/SEIS are revised as follows: Footnotes are added and revised.

ES.3.3 Problems and Needs/Project Opportunities

ES.3.1.1 Problems and Needs

The B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS is being developed to facilitate and approve the expansion of San Luis Reservoir's capacity to secure a more reliable water supply for South-of-Delta CVP and SWP water contractors and address water supply reliability problems across the CVP and SWP service areas.

Decreased water supply reliability affects the ability of CVP contractors to meet water demands. Stringent flow and water quality requirements in the Delta continue to restrict the amount of water that the CVP and SWP can pump. These limitations cause water supply reliability concerns for CVP and SWP contractors that receive Delta exports. Regulatory changes and project operations are expected to increase reliance on San Luis Reservoir supplies.

ES.3.1.2 Operational Flexibility

Operational flexibility allows water agencies to manage water supplies efficiently by increasing supply and storage management options. Implementing the B. F. Sisk Dam Raise and Reservoir Expansion Project would provide increased storage options to CVP contractors to store *non-CVP water here to referenced as non-Project water*¹⁵ ~~non-Project water~~.

ES.3.1.32-Water Supply Reliability

In years when CVP contractors choose to conserve portions of their allocation for use in a subsequent dry year, those contractors can choose to leave that unused supply in San Luis Reservoir as carried-over water. The contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation). The CVP contractors also store their supplemental supply (non-Project water) such as transfer water or conserved water¹⁶ into a subsequent year. The contractors also risk losing this water if San Luis Reservoir fills. Implementing the B.F. Sisk Dam Raise and Reservoir Expansion Project could increase storage capacity ~~and thereby and reducing and reduce~~ the likelihood of carried-over supply and other water being lost to CVP contractors ~~from spill~~. Additionally,

¹⁵ Non-Project water includes transfer water acquired by existing South-of-Delta CVP contractors or other non-Project water currently stored in San Luis Reservoir such as conserved water. The water contractors can store non-Project water in San Luis Reservoir under a Warren Act Contract. Similar to carried-over water, the contractors take on a risk of potentially losing non-Project water if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation).

¹⁶ Conservation water or conserved water is typically defined as water conserved by utilities through reducing irrecoverable water losses.

Reclamation could also capture more project water¹⁷ if excess flows become available, *pursuant to existing water rights.*

The third sentence in the fifth paragraph on page ES-3 of the Draft EIR/SEIS is revised as follows:

This EIR uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and DWR* 2019), which remains a current and accurate representation of existing conditions.

Page ES-4

The second sentence in the first paragraph on page ES-4 of the Draft EIR/SEIS is revised as follows: Footnotes added and revised.

The Crest raise action includes increasing the dam crest by 12 feet to reduce safety concerns for the downstream public by reducing the likelihood of overtopping if slumping were to occur during a seismic event (Reclamation *and DWR* 2019).

Page ES-6

The second paragraph on page ES-6 of the Draft EIR/SEIS is revised as follows:

Impacts on air quality due to construction actions under Alternative 1 would generate nitrogen oxides (NOx) emissions that exceed significance thresholds. Implementation of mitigation measures *previously identified and* required under the B.F. Sisk Dam SOD Modification Project, including use of Tier 4 construction equipment, reduction of exhaust emissions from on-road trucks, and implementing best available mitigation measures for the construction phase would reduce impacts to less than significant.

Page ES-7

The last sentence in the fifth paragraph on page ES-7 of the Draft EIR/SEIS is revised as follows:

~~Water quality and~~ Environmental commitments identified in the B.F. Sisk Dam SOD Modification Project ~~include erosion control actions~~ *would decrease erosion rates and delivery of sediments and any other resident pollutants to surface waters.*

¹⁷ Article 1(u) of the Water Service Contract defines Project Water as all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Project and in accordance with the terms and conditions of water rights acquired pursuant to California law.

¹⁷ Article 1(u) of the Water Service Contract defines Project Water as all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Project and in accordance with the terms and conditions of water rights acquired pursuant to California law.

¹⁷ The NOI ~~draft supplemental environmental impact statement Draft SEIS, for which this final~~ Final supplemental impact statement SEIS is issued, ~~was begun~~ was published prior to ~~before~~ September 14, 2020. Therefore, all references to CEQ regulations are to those regulations at 40 CFR parts 1500-1508 in existence as of the date the NOI was published in the Federal Register on May 14, 2020.

The second sentence in the seventh paragraph on page ES-7 of the Draft EIR/SEIS is revised as follows:

Implementation of Mitigation Measures AQ-1, AQ-2, AQ-3, ~~and AQ-4~~, *AQ-5, and GHG-1* required under the Proposed Action, include use of renewable diesel or biodiesel powered construction equipment and the purchase of carbon offsets, and would reduce greenhouse gas emissions to a less than significant level.

Page ES-8

The fifth, sixth and seventh paragraph on page ES-8 of the Draft EIR/SEIS are revised as follows:

78) Construction activities have the potential for significant impacts on sensitive terrestrial habitats including wetland and riparian vegetation communities, terrestrial wildlife, nesting birds, and special status plant species. Mitigation Measures TERR-1 through TERR-16, required under the Proposed Project including preconstruction surveys, establishment of buffers, construction monitoring, and compensatory mitigation where impacts could not be avoided, which would substantially reduce these potential impacts to a less than significant level.

(89) Impacts to known historic properties, historical resources, and other cultural resources associated with Alternative 3 would be significant. CEQA Mitigation Measures CR-1, CR-2, and CR-3, required under the Proposed Project, which include avoidance of known resources, training of construction personnel on the cultural sensitivity of the area, monitoring for the inadvertent discovery of new resources by qualified personnel, and continued coordination with culturally associated Native American tribes, would be implemented to avoid or reduce significant impacts. Under Section 106 of the NHPA, adverse effects to historic properties would be resolved (i.e., avoided, minimized, or mitigated) through the completion of the Section 106 process and the execution of an amendment to the agreement document developed for Alternative 1.

(910) Significant recreation impacts due to increased surface inundation would occur under Alternative 3. Mitigation Measures REC-1 and REC-2, required under the Proposed Project, include expansion of boat launches at the San Luis Creek Use Areas and movement of portions of the Lone Oak Trail upslope, which would reduce recreation impacts to a less than significant level.

Page ES-9

The first and second paragraph on page ES-9 of the Draft EIR/SEIS are revised as follows:

ES.7 Environmentally Superior Alternative *and Preferred Alternative*

CEQA Guidelines require an EIR to identify an environmentally superior alternative. However, the environmentally superior alternative does not need to be adopted as the ~~preferred alternative~~ *proposed project* for implementation. The identification of the ~~preferred alternative~~ *proposed project* is independent of the identification of the environmentally superior alternative, although the identification of both will be based on the information presented in this Draft EIR/SEIS.

This ~~Draft~~ EIR/SEIS provides a substantial portion of the environmental information for SLDMWA to determine the environmentally superior alternative. In this ~~Draft~~ EIR/SEIS, SLDMWA, as *CEQA* lead agency, has identified the subalternatives under Alternative 3 that provide additional refuge water supply benefits as the environmentally superior alternative. SLDMWA will consider feedback during the public review phase of the ~~Draft~~ EIR/SEIS on the environmental benefits and impacts of each alternative when developing the *Notice of Determination (NOD)*~~Final EIR/SEIS and ROD~~.

Text added on page ES-9 of the Draft EIR/SEIS:

Consistent with 40 Code of Federal Regulations (CFR) Part 46.425, the Final EIR/SEIS identifies a preferred alternative (also known as the proposed project for CEQA) for implementation. The identification of the preferred alternative is independent of the identification of the environmentally superior alternative. Reclamation, as NEPA lead agency, has identified Alternative 3, as the preferred alternative. The preferred alternative identified in the Final EIR/SEIS is based on the information presented in the Draft EIR/SEIS, along with revisions made in response to comments received on the Draft EIR/SEIS. After the Final EIR/SEIS is published, SLDMWA and Reclamation will prepare a NOD/ROD, respectively, to implement the selected alternative. Agencies with regulatory authority issuing permits or other types of approvals for the B.F. Sisk Dam Raise and Reservoir Expansion Project may adopt this EIR/SEIS, consistent with their own policies and regulations, or use information included as the basis for their own environmental compliance.

Footnotes added on page ES-9 of the Draft EIR/SEIS.

¹ The Notice of Intent (NOI) for which this final supplemental impact statement is issued was published before September 14, 2020. Therefore, all references to CEQ regulations are to those regulations at 40 CFR parts 1500-1508 in existence as of the date the NOI was published in the Federal Register on May 14, 2020.

Page ES-11

Table ES-1 Impact Summary on page ES-11 of the Draft EIR/SEIS is revised as follows:

Table ES-1. Impact Summary

4.3 Air Quality				
Estimates of potential emissions from the short-term construction generated and long-term operations and maintenance of the alternatives were developed and compared to significance thresholds established by the respective air district where the alternative would be implemented.	1	S, LTS	AQ-1, AQ-2, AQ-3 ¹ , AQ-5	Section 4.3.3
	2	NI	None	Section 4.3.4
	3	S, SU	AQ-1 ² , AQ-2 ² , AQ-3, AQ-4, AQ-5	Section 4.35 Appendix F

4.2 Chapter 1

Page 1-1

The fourth and fifth sentences in the third paragraph on page 1-1 of the Draft EIR/SEIS are revised as follows:

Typically, during the winter and early spring, water conveyed from the Delta in the Delta-Mendota Canal (DMC) (a CVP facility) and California Aqueduct (a SWP facility) is lifted from O'Neill Forebay into San Luis Reservoir for storage using the pump-turbines in Gianelli Pumping-Generating Plant ~~(see Figure 1-1). Figure 1-1 depicts San Luis Reservoir and associated facilities.~~ Later in the year typically late spring and summer months, when CVP and SWP demand increases, water is released from San Luis Reservoir through O'Neill Forebay and conveyed via the DMC or the San Luis Canal (a joint-use CVP and SWP facility) and California Aqueduct for use by water contractors (Reclamation *and* DWR 2019).

Page 1-2

The second sentence in the first paragraph on page 1-2 of the Draft EIR/SEIS is revised as follows:

Water is also diverted from the west side of San Luis Reservoir at the Pacheco Pumping Plant to supply water to two CVP contractors, the Santa Clara District (Valley Water), and the San Benito County Water District (Reclamation *and* DWR 2019).

Page 1-3

The first sentence in the first paragraph on page 1-3 of the Draft EIR/SEIS is revised as follows:

The Reclamation Safety of Dams Act of November 2, 1978 (SOD Act) (43 U.S.C. §506 et seq.), was amended by P.L. 114-113 to include authority for Reclamation to develop additional project benefits in conjunction with *SOD modifications, including the* ~~B.F. Sisk Dam SOD Modification Project.~~

The second sentence in the second paragraph on page 1-3 of the Draft EIR/SEIS is revised as follows:

The increased storage capacity could be achieved by implementation of *the* Proposed Action ~~by an additional 10 feet to raise the embankment elevation of the B.F. Sisk Dam embankment by 10 feet~~ across the entire dam crest above the level proposed for dam safety purposes.

The third paragraph on page 1-3 of the Draft EIR/SEIS is revised as follows:

1.2.1 Project Purpose and Need

~~As a potential funding source for the Proposed Action under the WIIN Act, and in accordance with the amended SOD Act,~~ Reclamation's ~~preliminary~~ *primary* purpose and need is to evaluate the feasibility report and determine if SLDMWA's request to increase water storage supply provides an additional benefit in conjunction with the current B.F. Sisk Dam SOD Modification Project, is consistent with Reclamation Law, can support a Secretary of Interior's finding of feasibility, has federal benefits pursuant to the WIIN Act, and can be accomplished without negatively impacting the B.F. Sisk Dam SOD Modification Project.

This preliminary purpose and need are based on the goals of SLDMWA and Reclamation's authority under the WIIN Act and the amended SOD.

Page 1-4

The first, second, third and fourth paragraph on page 1-4 of the Draft EIR/SEIS are revised as follows (footnotes added):

1.2.3 Problems and Needs/Project Opportunities

1.2.3.1 Problems and Needs

The B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS is being developed to facilitate and approve the expansion of San Luis Reservoir's capacity to secure a more reliable water supply for South-of-Delta CVP and SWP water contractors and address water supply reliability problems across the CVP and SWP service areas.

Decreased water supply reliability affects the ability of CVP contractors to meet water demands. Stringent flow and water quality requirements in the Delta continue to restrict the amount of water that the CVP and SWP can pump. These limitations cause water supply reliability concerns for CVP and SWP contractors that receive Delta exports. Regulatory changes and project operations are expected to increase reliance on San Luis Reservoir supplies.

~~1.2.3.1~~ 1.2.3.2 Operational Flexibility

Operational flexibility allows water agencies to manage water supplies efficiently by increasing supply and storage management options. Implementing the B. F. Sisk Dam Raise and Reservoir Expansion Project would provide increased storage options to CVP contractors to store *non-CVP water here to referenced as non-Project water*¹⁸ ~~non-Project water~~.

~~1.2.3.2~~ 1.2.3.3 Water Supply Reliability

In years when CVP contractors choose to conserve portions of their allocation for use in a subsequent dry year, those contractors can choose to leave that unused supply in San Luis Reservoir as carried-over water. The contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation). The CVP contractors also store their supplemental supply (non-Project water) such as transfer water or conserved water¹⁹ into a subsequent year. The contractors also risk losing this water if San Luis Reservoir fills. Implementing the B.F. Sisk Dam Raise and Reservoir Expansion Project could increase storage capacity ~~and thereby and reducing and reduce the~~

¹⁸ Non-Project water includes transfer water acquired by existing South-of-Delta CVP contractors or other non-Project water currently stored in San Luis Reservoir such as conserved water. The water contractors can store non-Project water in San Luis Reservoir under a Warren Act Contract. Similar to carried-over water, the contractors take on a risk of potentially losing non-Project water if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation).

¹⁹ Conservation water or conserved water is typically defined as water conserved by utilities through reducing irrecoverable water losses.

¹⁹ Article 1(u) of the Water Service Contract defines Project Water as all water that is developed, diverted, stored, or delivered by the Secretary in accordance with the statutes authorizing the Project and in accordance with the terms and conditions of water rights acquired pursuant to California law.

likelihood of carried-over supply and other water being lost to CVP contractors *from spill*. Additionally, Reclamation could also capture more CVP project water²⁰ if excess flows become available, *pursuant to existing water rights*.

4.3 Chapter 2

Page 2-1

The last sentence in the first paragraph on page 2-1 of the Draft EIR/SEIS is revised as follows:

A supplemental EIS is to be developed using the same process and format as an original EIS, except that scoping is not required ~~(40 CFR.1502.9).23 CFR 771.130(d).)))).~~ Per CEQA Section 21083.9, SLDMWA held a public scoping meeting via an online web-based tool on May 26, 2020 for the subsequent EIR.

The third paragraph on page 2-1 of the Draft EIR/SEIS is revised as follows:

SLDMWA and Reclamation started the process by identifying the project objectives ~~(operational flexibility and water supply reliability)/~~ purpose and need. SLDMWA and its member agencies reviewed the project objectives and previous studies in their initial effort to develop conceptual alternatives. This process identified an initial list of 17466 measures that could, in part, contribute to the ~~project~~ project's objectives/~~purpose~~ purposes and ~~need~~ needs. The ~~three~~ criteria developed to evaluate each measure include the ability of the measure to address the ~~objective~~ objectives of the project; the reliability and quantity of annual allocations and increasing the certainty of access to supplies for South-of-Delta contractors, ~~as well as the cost effectiveness of the measure;~~ and the ~~acceptability of the environmental impacts.~~ Measures were scored qualitatively for each of the ~~three screening criteria:~~ ability of the measure to address the project purposes and needs; additional project benefits under the B.F. Sisk Dam SOD Modification Project, federal benefits pursuant to the WIIN Act, and confirm no adverse impacts to the B.F. Sisk Dam SOD Modification Project. ~~The metrics used were:~~ measures were scored qualitatively and ranked as high, medium, or low:

The three bullets on page 2-1 of the Draft EIR/SEIS are revised as follows:

- **High (3)** – measure **fully meets** the project's objectives/purpose and need
- **Medium (2)** – measure **partially meets** the project's objectives/purpose and need
- **Low (1)** – measure **does not meet** the project's objectives/purpose and need
- ——— The measure fully addressed the screening criteria
- ——— The measure partially addressed the screening criteria
- ——— The measure did not address the screening criteria

The fourth paragraph on page 2-1 of the Draft EIR/SEIS is revised as follows:

Measures that scored highest moved forward to be incorporated into the alternatives. These measures, and their performance, are documented in the Alternatives Development Report (see Appendix A). The measures remaining after the initial screening were combined into ~~two~~^{one} action ~~alternative~~^{alternatives (the Non-Structural Alternative and Dam Raise Alternative)} that ~~was~~^{were} selected to move forward for analysis (in addition to the No Project/No Action Alternative).

Page 2-2

The last sentence in the second paragraph on page 2-2 of the Draft EIR/SEIS is revised as follows:

This EIR *is prepared subsequent to, and* uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and* DWR 2019), which remains a current and accurate representation of existing conditions.

The first, second and third sentence in the third paragraph on page 2-2 of the Draft EIR/SEIS are revised as follows:

In this EIR/SEIS Alternative, the No Project/No Action Alternative reflects the implementation of the crest raise actions per the B.F. Sisk Dam SOD Modification Project ~~Record of Decision (ROD)~~. The crest raise action, as detailed in the B.F. Sisk Dam SOD Modification Project EIS/EIR, includes increasing the dam crest by 12 feet to reduce safety concerns for the downstream public by reducing the likelihood of overtopping if slumping were to occur during a seismic event (Reclamation *and* DWR 2019). The EIS/EIR assumes construction would start in 2020 and last between 8 to 12 years ~~and s. T the~~. ~~The crest raise action evaluated in the B. F. Sisk Dam SOD Modification Project EIS/EIR would not result in an increase in inundation area. s. Construction, construction~~ actions evaluated in the EIS/EIR ~~are~~^{is} expected to result in ground disturbance area of approximately 3,905 acres (includes the crest of the dam, the entire downstream slope of the dam, borrow areas, haul routes, site access, and potential construction use areas).

The footnote revised on page 2-2 of the Draft EIR/SEIS as follows:

¹ ~~The draft supplemental environmental impact statement~~ Notice of Intent (NOI) for which this ~~final Final supplemental impact statement~~ SEIS is issued, ~~was begun~~^{was published prior to} before September 14, 2020. Therefore, all references to CEQ regulations are to those regulations at 40 CFR parts 1500-1508 in existence as of the date the NOI was published in the Federal Register on May 14, 2020.

Page 2-3

The eighth sentence in the first paragraph on page 2-3 of the Draft EIR/SEIS is revised as follows:

In these drier years, the 310 TAF in reserved supply would be allocated to ~~M&I~~ South-of-Delta CVP contractors, consistent with the CVP's current allocation of water supply stored in San Luis Reservoir, *but only if supply is sufficient to meet the demands of senior water rights contractors. Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of*

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Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types. ~~Reservoir.~~

The second paragraph on page 2-3 of the Draft EIR/SEIS is revised as follows:

This change in San Luis Reservoir operations to increase water supply available in dry and critical years would adversely impact average water supply deliveries to CVP and SWP contractors. This alternative would not completely meet the project objectives/purpose and needs of the Proposed Action. However, Alternative 2 is analyzed in this EIR/SEIS as a nonstructural alternative that would partially meet the water supply reliability objective. *The non-structural alternative is analyzed in the B.F. Sisk Dam Raise and Reservoir Expansion EIR/SEIS in accordance with the Directive and Standard – Developing Additional Project Benefits in Conjunction with a Safety of Dams Modification Project (Reclamation 2016). This directive and standard includes the requirement for the evaluation of “a non-structural alternative that meets the needs and objectives of the additional benefits of the additional benefits project.” Although this Non-Structural Alternative partially meets project objectives, of the Non-Structural alternatives analyzed, the selected Non-Structural alternative performed best in meeting project objectives.* The Non-Structural Alternative would not require any additional construction or maintenance actions.

Page 2-7

The first paragraph on page 2-7 of the Draft EIR/SEIS is revised as follows:

Construction of Dam Raise. Construction of the additional 10-foot embankment and associated modifications would initiate during final stages of the construction of the B.F. Sisk Dam SOD Modification Project. Construction of the dam raise action is scheduled to start in September 2025 and *be* completed ~~within~~ 8 years. Preconstruction and design activities will begin in 2022.

Page 2-8

The second paragraph on page 2-8 of the Draft EIR/SEIS is revised as follows:

During the period of construction (2025 through 2032), it is anticipated that 130 workers would be on-site during the day shift and 87 workers on-site during the night shift. This is in addition to the number of worker evaluated under the B.F. Sisk Dam SOD Modification Project EIS/EIR. *Since all existing project features at B.F. Sisk Dam would be replaced in kind under Alternative 3, Postconstruction maintenance activities would not increase the frequency of maintenance workers being on-site compared to existing maintenance activities at B.F. Sisk Dam. The Gianelli Pumping Plant would not be expanded or modified under Alternative 3 and therefore would not require increased operations staff on-site.*

The second and third sentences in the fourth paragraph on page 2-8 of the Draft EIR/SEIS are revised as follows:

SR 152 modification would include raising the embankment by 11 feet and *adding* slope protection of the East Overlook Parking Area located approximately half a mile southeast from the SR 152 site. ~~The SR 152 modification construction is scheduled to last for 18–24 months, starting in summer 2027.~~

Page 2-10

The third paragraph on page 2-10 of the Draft EIR/SEIS is revised as follows:

Given the importance of effective coordinated operations of the CVP and SWP, the existence and/or extent of any SWP water supply reduction from subalternatives will be reassessed prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the subalternatives, affect SWP operations. SLDMWA, through these reassessments and ongoing coordination of operations between Reclamation and DWR, shall confirm at these intervals that any SWP water supply reduction resulting from the subalternatives' construction or operation is less than significant. Any adaptive management measures or restrictions imposed on SLDMWA, Reclamation, or the CVP through permits or other regulatory approvals issued for the subalternatives' operations will be coordinated with DWR consistent through the Coordinated Operation Agreement that includes with the water with the rights and obligations of and between Reclamation and DWR agreed to in other independent agreements.

The fifth paragraph on page 2-10 of the Draft EIR/SEIS is revised as follows:

CVP/SWP Split Storage Subalternative. The additional storage would be split between CVP and SWP consistent with the current ~~45% CVP and 55% SWP split~~ share of the overall reservoir storage. The additional storage would follow current operating criteria and the storage priority will follow the current rescheduling guidelines.

Page 2-13

Table 2-1 on page 2-13 of the Draft EIR/SEIS is revised as follows:

Table 2-1. Mitigation Measures to Avoid Environmental Impacts Associated with B.F. Sisk Dam SOD Modification Project

Mitigation Measure	Summary	Measures Under Alternative 1 Carried Forward Under Alternative 3
REC-1	Closure of Basalt Campground and other recreational facilities due to construction activities will be replaced at a 1:1 ratio. It will include six American with Disabilities Act (ADA) accessible campsites (with site amenities) and Recreational Vehicle (RV) accommodations. The boat launch at the San Luis Creek and Dinosaur Point use areas would be expanded by addition of a launch lane and a boarding float at each area. In addition, a fish cleaning station, public storage lockers, and shower facilities would be developed at San Luis Creek Use Area	

Source: Reclamation and DWR 2019

Page 2-14

The first, second and third paragraph on page 2-13 of the Draft EIR/SEIS are revised as follows:

2.4 Environmentally Superior Alternative and Preferred Alternative

CEQA Guidelines require an EIR to identify an environmentally superior alternative. However, the environmentally superior alternative does not need to be adopted ~~as the proposed project~~ ~~preferred alternative~~ for implementation. The identification of the ~~preferred alternative~~ ~~proposed project~~ is independent of the identification of the environmentally superior alternative, although the identification of both will be based on the information presented in ~~this Draft EIR/SEIS~~.

~~This Draft EIR/SEIS~~ provides a substantive portion of the environmental information for SLDMWA to determine the environmentally superior alternative. In ~~this Draft EIR/SEIS~~, SLDMWA, ~~as CEQA lead agency~~, has identified the subalternatives under Alternative 3 that provide additional refuge water supply benefits as the environmentally superior alternative. SLDMWA will consider feedback during the public review phase of the draft EIR/SEIS on the environmental benefits and impacts of each alternative when developing the final EIR/SEIS and ROD.

Consistent with 40 Code of Federal Regulations (CFR) Part ~~46.425~~ 1502.14, the Final EIR/SEIS identifies a preferred alternative (also known as the proposed project for CEQA) for implementation. The identification of the preferred alternative is independent of the identification of the environmentally superior alternative. ~~SLDMWA and Reclamation, as NEPA lead agency, have identified Alternative 3, as the preferred alternative. The preferred alternative identified in the Ffinal EIR/SEIS is based on the information presented in the Draft EIR/SEIS, along with revisions made in response to comments received during public review phase on Draft EIR/SEIS. After the Ffinal EIR/SEIS is published, SLDMWA and Reclamation will prepare a NOD/ROD, respectively, to implement the selected alternative. Agencies with regulatory authority issuing permits or other types of approvals for the B.F. Sisk Dam Raise and Reservoir Expansion Project may adopt this EIR/SEIS, consistent with their own policies and regulations, or use information included as the basis for their own environmental compliance.~~

~~Reclamation has not yet identified an environmentally preferable alternative for the Project. Pursuant to 40 CFR 1505.2(b), Reclamation will decide on the environmentally preferable alternative based on analysis in the EIR/SEIS, consultation and coordination with interdisciplinary team members, and public input.~~

4.4 Chapter 3

Page 3-1

The first sentence in the first paragraph on page 3-1 of the Draft EIR/SEIS is revised as follows:

This chapter presents an overview of the affected environment for the ~~draft~~ *final* EIR/SEIS.

The fourth sentence in the first paragraph on page 3-1 of the Draft EIR/SEIS is revised as follows:

This baseline conditions presented in this chapter is the same baseline presented and evaluated in the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and* DWR 2019

Page 3-8

The last sentence in the first paragraph on page 3-8 of the Draft EIR/SEIS is revised as follows:

Water from San Luis Reservoir also is conveyed through the Pacheco Tunnel to CVP contractors in Santa Clara and San Benito Counties (Reclamation 2019~~a~~).

The third sentence in the fifth paragraph on page 3-8 of the Draft EIR/SEIS is revised as follows:

The San Luis Canal is federally built and extends 103 miles from O’Neil Forebay southeast to just past Kettleman City, California (Reclamation 2019~~a~~).

Page 3-17

The second sentence in the third paragraph on page 3-8 of the Draft EIR/SEIS is revised as follows:

Such communities include valley foothill riparian, coast live oak woodland, chaparral/scrub, annual grassland, purple needlegrass grassland, freshwater emergent wetland, seasonal wetland, agricultural, and urban/disturbed (Table 1) (Reclamation and CDPR 2013; Reclamation 2019~~8~~; Environmental Science Associates [ESA] 2018; ESA 2020) (see Figure 9-1 in Appendix K1 [ESA 2018 Biological Survey Report] and Figure 3-1 in Appendix K2 [ESA 2020 Biological Survey Report]).

Page 3-18

The second sentence in the sixth paragraph on page 3-18 of the Draft EIR/SEIS is revised as follows:

Critical habitat is designated for California tiger salamander approximately 1 mile southeast of San Luis Reservoir and approximately 2.5 miles from Basalt Hill (see Figure 3-10 in Appendix K2) (USFWS 2019~~8~~).

Page 3-19

The first sentence in the last paragraph on page 3-19 of the Draft EIR/SEIS is revised as follows:

3.7.2.5 Plants

The B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and* DWR 2019) identified 32 special status plant species with at least a moderate potential to occur within the dam construction area (Reclamation 2019~~9~~).

The third sentence in the last paragraph on page 3-19 of the Draft EIR/SEIS is revised as follows:

The species are described and assessed for occurrence potential in the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and* DWR 2019) and in Section 3.3.1, “Special Status Plants” in Appendices K-1 and K-2.

4.5 Chapter 4

Page 4-1

The fourth sentence in the first paragraph on page 4-1 was revised as follows:

This EIR uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR (Reclamation *and* DWR 2019), which remains a current and accurate representation of existing conditions.

The fifth sentence in the first paragraph on page 4-1 was revised to add a footnote as follows:

Because the B.F. Sisk Dam SOD Modification Project (12-foot embankment raise) has been approved and the structural alternative (Alternative 3) proposes an additional 10-foot embankment raise, the effects analysis presented below uses the No Project/No Action Alternative (Alternative 1) as the basis for comparison of the approved project to the Proposed Action and action alternatives for CEQA and NEPA²¹.

Page 4-5

The first paragraph in Section 4.2.4 on page 4-5 is revised as follows:

Under Alternative 2, Reclamation would change its annual allocation process to reserve up to 310 TAF of stored CVP supply in San Luis Reservoir at the end of wetter years. This water would be reserved in San Luis Reservoir for allocation in subsequent drier years to South-of-Delta CVP contractors. In these drier years, the 310 TAF in reserved supply would be allocated to South-of-Delta CVP water contractors consistent with the CVP's current allocation of water supply stored in San Luis Reservoir, but only if supply is sufficient to meet the demands of senior water rights contractors. Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types. Under this new operational configuration allocated water supply not used by CVP contractors could not be carried over for use in a subsequent year. Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types.

Page 4-9

The second sentence in Section 4.3.3 on page 4-9 is revised as follows:

Implementation of AQ-1, AQ-2, ~~and~~ AQ-3, *and* AQ-5 and the Air Quality Environmental Commitment required under the B.F. Sisk Dam SOD Modification Project, described in Table 2-1 and Appendix B, would manage these significant impacts, reducing them to **less than significant**.

²¹ The No Project/No Action Alternative forecast of future conditions includes as is detailed in Appendix J2, projections of future hydrology with climate change.

Page 4-11

The first incomplete sentence on page 4-11 is revised as follows:

Implementation of Mitigation Measures AQ-1, AQ-2, AQ-3, ~~and~~ AQ-4, *and* AQ-5, described in Section 4.15, would be used to reduce VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions to ~~less than significant~~; however, VOC, NO_x, CO, and PM₁₀ emissions would remain significant and unavoidable.

Page 4-13

The third sentence in Section 4.4.3 on page 4-13 is revised as follows:

Implementation of Mitigation Measure *AQ-5 and* GHG-1 required under the B.F. Sisk Dam SOD Modifications Project, described in Table 2-1 and Appendix B, would reduce impacts to less than significant.

The fourth and fifth sentences in Section 4.4.5 on page 4-13 are revised as follows:

Implementation of Mitigation Measures AQ-1, AQ-2, *AQ-5*, GHG-1, and GHG-2, described in Section 4.15, would reduce the impacts' severity. **With the implementation of Mitigation Measures AQ-1, AQ-2, AQ-5, GHG-1, and GHG-2, construction and operation of the dam raise and SR 152 modifications would have less than significant impact on GHG emissions and GHG reduction plan and policy conflicts with mitigation.**

Page 4-14

The first sentence in Section 4.4.5.2 on page 4-14 is revised as follows:

Additional pumping at Gianelli Pumping-Generating Plant ~~and~~, Pacheco Pumping Plant, *and* O'Neill Pumping-Generating Plant would increase GHG emissions by 4,971 MTCO_{2e} per year.

Page 4-28

The text in Section 4.10.2 on page 4-28 is revised as follows:

Impacts on terrestrial biological resources would be considered significant if the project (1) would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as an endangered, threatened, candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS; (2) would have a substantial adverse effect on any riparian habitat or other sensitive (or special status) natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS; (3) would have a substantial adverse effect on state or federally protected wetlands (e.g., vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means; (4) would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or would impede the use of native wildlife nursery sites; or (5) would conflict with any local policies or ordinances protecting biological resources or adopted *Habitat Conservation Plan (HCP)*, *Natural Community Conservation Plan (NCCP)*, or other approved local, regional, or state conservation plan.

Page 4-29

The third sentence in Section 4.10.3 on page 4-29 of the Draft EIR/SEIS is revised as follows:

Under Alternative 1, construction activities would permanently remove 358 acres of upland and aquatic habitat and temporarily disturb 3,084 acres (Appendix K1) (ESA 2018; Reclamation *and* DWR 2019), which include permanent impacts to approximately 3.4 acres of freshwater emergent wetland and 1.5 acres of seasonal wetland from the expansion of the dam footprint. Additional habitat would be temporarily impacted in the borrow and staging areas (Table 4-3).

The Table 4-3 notes on page 4-29 of the Draft EIR/SEIS is revised as follows:

Source: Reclamation *and* DWR 2019

> – greater than

The first sentence in the second paragraph on page 4-29 of the Draft EIR/SEIS is revised as follows:

Construction could result in associated loss of habitat or direct or indirect harm to several special status wildlife species, including vernal pool fairy shrimp, valley elderberry longhorn beetle, CRLF, California tiger salamander, western pond turtle, coast horned lizard, San Joaquin whipsnake, special status bats, SJKF, and American badger (see Appendix K1) (Reclamation *and* DWR 2019).

Pages 4-46 and 4-47

The text in Section 4.14.5.3 on Pages 4-46 and 4-47 is revised as follows:

Operation would increase demand on the existing pumps at Gianelli Pumping-Generating Plant, Pacheco Pumping Plant, and O'Neill Pumping-Generating Plant by approximately 10% in years when the new reservoir space is filled. Overall, changes in operation of ~~Gianelli Pumping-Generating Plant~~ the pumping plants resulting from the ability to fill an additional 130 TAF in San Luis Reservoir would result in the need for additional energy supplies. However, this energy could be partially recaptured at the Gianelli Pumping-Generating Plant and O'Neill Pumping-Generating Plant when water is released back into the forebay. In addition, the projected modeled frequency of this expanded storage capacity being filled to its maximum capacity would occur in 15 out of 82 years, or about 18% of the time. On average, this increase in power demand is projected to be 46,475,000 kilowatt-hours per year, or 46,475 megawatt-hours per year ~~46,475,000 megawatt-hours per year~~. The existing 10,600,202 megawatts of production capacity in the San Luis generating unit Western Area Power of Administration system can meet this increased demand, which provides a maximum capacity of approximately 1,769,520 megawatt-hours per year. The additional demand would consume less than three percent of the capacity of the unit. The existing power capacity at Gianelli Pumping-Generating Plant, Pacheco Pumping Plant, and O'Neill Pumping-Generating Plant would be able to meet the increased power demand to fill the expanded reservoir and would not result in the depletion of local or regional energy supplies. Additionally, an increase in head at San Luis Reservoir would increase pumping requirements at Dos Amigos Pumping Plant, which would increase power demand. The increased pumping would be necessary to achieve the project objectives. **This impact would be less than significant.**

Page 4-47

The following text has been added after Mitigation Measure AQ-4 on page 4-47:

Mitigation Measure AQ-5. *Construction contractors will be required to incorporate the following administrative control measures to minimize air pollutant and GHG emissions:*

- *Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes cumulative impacts from other planned projects in the region, if feasible.*
- *Locate diesel engines, motors, and equipment staging areas as far as possible from residential areas and other sensitive receptors (e.g., schools, daycare centers, hospitals, senior centers, etc.).*
- *Avoid routing truck traffic near sensitive land uses to the fullest extent feasible.*
- *Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production.*
- *Recycle construction debris to the maximum extent feasible.*
- *Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.²²*
- *Reduce construction-related trips of workers and equipment, including trucks.*
- *Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.*
- *Identify all commitments to reduce construction emissions and quantify air quality improvements that would result from adopting specific air quality measures.*

Identify where implementation of mitigation measures is rejected based on economic infeasibility.

Page 4-52

The second paragraph of Mitigation Measure TERR-7 on page 4-52 of the Draft EIR/SEIS is revised as follows:

Permanent foraging habitat losses (i.e., grasslands) within 1 mile of active Swainson's hawk nests will be compensated by preserving, in perpetuity, suitable foraging habitat ~~at a ratio of 4:1~~ as provided in CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (1994). This includes permanently disturbed construction sites. CDFW will approve the location and types of habitats preserved.

²² Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

Pages 4-52 and 4-53

Text for Mitigation Measure TERR-8 on pages 4-52 and 4-53 of the Draft EIR/SEIS is revised as follows:

- **Mitigation Measure TERR-8: Bald and Golden Eagles and California Condor.** The following measures address potential impacts on nesting eagles near San Luis Reservoir. *An Eagle Conservation Plan would be developed and subsequently approved by USFWS before construction begins. Eagle nest avoidance buffers would be 1 to 2 miles, depending on the type of activity, as specified in the USFWS's Recommended Buffer Zones for Human Activities around Nesting Sites of Bald Eagles in California and Nevada and the USFWS Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada (USFWS 2017a and USFWS 2020). If active eagle nests are identified and avoidance guidelines cannot be feasibly implemented, then coordination with the USFWS would be warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an Eagle Take Permit by the USFWS would be necessary.* Prior to the construction, an eagle conservation plan will be developed, detailing plan will be developed, detailing eagle protection guidelines specific to the San Luis Reservoir construction area. These protections will include preconstruction surveys by a USFWS and CDFW approved biologist for golden and bald eagles starting approximately 2 years prior to construction and continuing through the construction period. These surveys will be completed within a 5-mile radius from where impacts from the project occur, including construction areas. Any nesting sites identified during these surveys would be mapped and monitored for up to 10 years, depending on the monitoring specifications identified within the plan. Whenever feasible, construction near recently active nest sites will start outside the active nesting season. The nesting period is between January 15 and August 15 for golden eagles and January 1 and August 15 for bald eagles. If groundbreaking activities begin during the nesting period, a qualified biologist will perform a preconstruction survey 14–30 days prior to each new construction phase to search for eagle nest sites within 2 miles of proposed activities. If active nests are not identified, no further action is required, and construction may proceed. If active nests are identified, the following avoidance guidelines will be implemented: For golden and bald eagles, construction contractors will observe CDFW and USFWSUSFWSUSFWS avoidance guidelines, guidelines which stipulate a minimum 660-foot to 0.5-mile buffer zone depending upon the visibility and severity of the activity (e.g., earthmoving versus blasting) (USFWS 2007). Buffer zones will remain until young have fledged. A qualified biologist will monitor the nest daily for 1 week to determine whether construction activities are disturbing nest behavior. If nest behavior appears normal, then weekly monitoring will continue until the nest is no longer active. If the nest appears disturbed, the biological monitor will increase the no-work buffer at the monitor's discretion to ensure normal nesting behavior. For activities conducted with agency approval within this buffer zone, a qualified biologist will monitor construction activities and the eagle nest to monitor eagle reactions to activities. If activities are deemed to have a negative effect on nesting eagles, the biologist will immediately inform the construction manager that work should be halted, and USFWS and CDFW will be consulted.
- CDFW and USFWS often allow construction activities that are initiated outside the nesting season to continue without cessation even if raptors such as eagles choose to nest within 500 feet of work activities. Thus, work at the dam construction site may continue if approved by CDFW and USFWS and a qualified biologist monitors the nest site during construction.

- To compensate for the loss of 340.9 acres of grassland foraging habitat for golden eagles and California condors during construction and inundation, grasslands will be enhanced or restored at a minimum ratio of 1:1. Restoration or enhancement of grassland habitat will be conducted under a USFWS- and CDFW-approved restoration/enhancement plan.

Page 4-58

The second sentence in Mitigation Measure TERR-16a on Page 4-58 in the Draft EIR/SEIS is revised as follows:

Prior to construction, a qualified biologist ~~person~~ will delineate the extent of jurisdictional areas to be avoided in the field.

4.6 Chapter 5

Page 5-1

The following second sentence has been added to the first paragraph in Section 5.1.1 on page 5-1 of the Draft EIR/SEIS:

In addition, the Los Vaqueros Reservoir Expansion Project could result in long-term changes to Delta operations. However, these projects would be operated within the constraints of the the 2019 Biological Opinions for CVP and SWP operations as well as any future biological opinions or requirements. Therefore, no significant impacts to Delta operations are expected.

Pages 5-1 and 5-2

The following sixth sentence has been added to the first paragraph in Section 5.1.2 on pages 5-1 and 5-2 of the Draft EIR/SEIS:

The Los Vaqueros Reservoir Expansion Project could result in long-term changes to Delta operations, provide CVP operational flexibility, and increase refuge water supply deliveries to south-of-Delta refuges.

Page 5-3

Table 5-1 on page 5-3 of the Draft EIR/SEIS is revised as follows:

Table 5-1. Cumulative Construction Projects Maximum Annual Emissions

Cumulative Development Projects During Construction ¹	VOCs, tpy	NOx, tpy	CO, tpy	SO ₂ , tpy	PM ₁₀ , tpy	PM _{2.5} , tpy
B.F. Sisk Dam Raise and Reservoir Expansion Project	5	45	73	<1	41	6
Delta Conveyance Project	30	217	<1	1	58	9
San Luis Low Point Improvement Project	68	937	49132	<1	415	62
San Luis Transmission Project	4	26	34	n/a	39	7
San Luis Solar Project	<1	5	3	<1	<1	<1
Total from Other Construction Projects Emissions	40	257	86	1	138	22
Total Cumulative Construction Project Emissions	4547	302330	159242	1	180144	2824

4.7 Chapter 6

Page 6-7

Section 6.8.2 on page 6-7 of the Draft EIR/SEIS is revised as follows:

~~The Dam Raise Alternative has the potential to impact wetlands. Therefore, Reclamation and SLDMWA will coordinate with the USACE Regulatory Division regarding development of any to obtain a CWA Section 404 permit for the project. As part of the CWA Section 404 permit process, discharging construction-related waste into wetlands and other waters of the United States would be evaluated.~~

Page 6-8

The following section 6.8.14 has been added to Section 6.8 on pages 6-8 and 6-9 of the Draft EIR/SEIS:

Implementation of the Dam Raise Alternative would modify an existing CVP facility that stores water supplies conveyed from the Delta. Delta conveyance would occur consistent with existing water rights and would not amend or modify existing water supply or water transfer contracts. CVP and non-Project water would be stored in San Luis Reservoir consistent with current contract terms and all regulatory requirements.

The determination that a proposed activity meets the definition of a “covered action” under the Delta Plan is the responsibility of the state or local agency undertaking the proposed activity (Cal. Code Regs. tit 23, §5001, subd.(j)(3).) SLDMWA has made a good faith determination that the proposed project is not a “covered action”. The proposed project is a connected action to the B.F. Sisk Dam SOD Modification Project and would expand the B.F. Sisk Dam embankment by 10-foot to support an increase in reservoir storage capacity of 130 TAF. The proposed project evaluated different operation configurations of the expanded storage. All evaluated operational configurations would operate pursuant to existing water rights and regulatory requirements. If the lead agencies modify operations of the expanded storage in the future in a manner that qualifies as a “covered action,” a certification of consistency would be filed with the Delta Stewardship Council at that point.

Chapter 5 References

Chapter 1 Introduction

No References.

Chapter 2 Overview of the B.F. Sisk Dam Raise and Reservoir Expansion Project

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B.F. Sisk Dam Raise and Reservoir Expansion Project Final Environmental Impact Report/ Supplemental Environmental Impact Statement

Appendix A: Public Comment Letters

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

Comment ID
A

September 25, 2020

Casey Arthur
U.S. Bureau of Reclamation
Willows Construction Office
1140 W. Wood Street
Willows, California 95988

Subject: Supplemental Draft Environmental Impact Statement for B.F. Sisk Dam Raise and Reservoir Expansion Project, Merced County, California (EIS No. 20200163)

Dear Ms. Arthur:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. In this document, the Bureau of Reclamation, in conjunction with the San Luis and Delta-Mendota Water Authority, proposes to improve water supply reliability for federal and state contractors. In December 2019, Reclamation signed a Record of Decision detailing the agency's decision to implement the Crest Raise Alternative which would raise the dam twelve feet for seismic safety reasons. Reclamation is evaluating the current project as a connected action to the B. F. Sisk Dam Safety of Dams Modification Project to create additional project benefits by increasing storage within San Luis Reservoir through operational and construction alternatives.

The construction alternative evaluated in this Supplemental Draft EIS was previously evaluated as an alternative in the San Luis Low Point Improvement Project Draft EIS released in July 2019. This project is still under development and no Preferred Alternative has been selected. We understand there is a lot of uncertainty on how these projects will proceed, and we encourage Reclamation to proactively coordinate implementation of the remaining permits to successfully mitigate cumulative air, water, and species impacts in the project area.

Effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change and the EPA's continued roles and responsibilities in the review of federal actions can be found on our website: <https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act>. The EPA appreciates the opportunity to review this Supplemental Draft EIS. If you have any questions, please contact me at (415) 947-4167, or contact Stephanie Gordon, the lead reviewer for this project, at 415-972-3098 or gordon.stephanies@epa.gov

Sincerely,

JEAN
PRIJATEL

Digitally signed by JEAN
PRIJATEL
Date: 2020.09.25
15:53:09 -07'00'

Jean Prijatel
Manager, Environmental Review Branch

A-1

Cc: Nicole Johnson, Bureau of Reclamation
Keith Hess, U.S. Army Corps of Engineers
Lauren Sullivan, US Fish and Wildlife Service
Joel Casagrande, National Marine Fisheries Service

U.S. EPA DETAILED COMMENTS ON THE SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE B.F. SISK DAM RAISE AND RESERVOIR EXPANSION PROJECT, MERCED COUNTY, CALIFORNIA- SEPTEMBER 25, 2020

Air Quality

EPA's regulations at 40 CFR 93.150-165 provide a method for federal agencies to demonstrate general conformity with the National Ambient Air Quality Standards. Estimated annual emissions from a federal action are compared to the de minimis thresholds through an applicability assessment. If the emissions exceed the de minimis threshold, general conformity is applicable to the federal action and the EPA's regulations offer methods to demonstrate conformity as well as other requirements for the conformity demonstration, such as public involvement.

The Plan Area is located within the San Joaquin Valley Air Basin, which the EPA currently designates as extreme nonattainment for ozone and nonattainment for particulate matter of less than 2.5 microns (PM_{2.5}). The Supplemental Draft EIS indicates there would be degradation of air quality during project construction for the dam raise alternative. As shown in Table 4-1, volatile organic compounds (VOC), oxides of nitrogen (Nox), carbon monoxide (CO), PM₁₀, and PM_{2.5} emissions would exceed the San Joaquin Valley Air Pollution Control District's significance thresholds, while VOC, NOx, and PM₁₀ emissions would exceed the general conformity de minimis thresholds (p. 4-11). The SDEIS acknowledges that a general conformity determination will be needed for Alternative 3 if it selected as Reclamation's preferred alternative (p. 6-7).

A-2

Recommendation: We recommend including a draft general conformity determination in the Final EIS to fulfill the public participation requirements of 40 CFR 93.156.

Construction Emissions

The proposed mitigation for air quality impacts, as detailed in Appendix B, is to enter into a Voluntary Emissions Reduction Agreement with the San Joaquin Valley Air Pollution Control District. EPA recommends that Reclamation coordinate closely with the SJVAPCD to ensure that the project moves forward in a manner that reduces air quality impacts to the greatest extent possible. We note that there are a number of actions that can reduce construction-related emissions of NAAQS.

Recommendation: In addition to measures necessary to meet all applicable local, state, and federal requirements, EPA recommends the following mitigation measures be included in the construction emissions mitigation plan:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both active and inactive sites during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

A-3

Mobile and Stationary Source Controls:

- Reduce unnecessary idling from heavy equipment.
- Prohibit engine tampering to increase horsepower, except when meeting manufacturer's recommendations.

- Lease or buy newer, cleaner equipment using the best available emissions control technologies.
 - Use lower-emitting engines and fuels, including electric, liquified gas, hydrogen fuel cells, and/or alternative diesel formulations, if feasible.
 - *On-Highway Vehicles* - On-highway vehicles should meet, or exceed, the U.S. EPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., drayage trucks, long haul trucks, refuse haulers, shuttle buses, etc.).¹
 - *Nonroad Vehicles & Equipment* - Nonroad vehicles and equipment should meet, or exceed, the U.S. EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., nonroad trucks, construction equipment, cargo handlers, etc.).²

Administrative Controls:

- Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes cumulative impacts from other planned projects in the region, if feasible.
- Locate diesel engines, motors, and equipment staging areas as far as possible from residential areas and other sensitive receptors (e.g., schools, daycare centers, hospitals, senior centers, etc.).
- Avoid routing truck traffic near sensitive land uses to the fullest extent feasible.
- Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production.
- Use lighter-colored pavement where feasible.
- Recycle construction debris to the maximum extent feasible.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.³
- Reduce construction-related trips of workers and equipment, including trucks.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify all commitments to reduce construction emissions and quantify air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.

A-3

Cumulative Impacts

Chapter 5 details the cumulative impacts that would occur if other projects in the area begin construction at the same time. Multiple large construction projects in the area are proposed, including high speed rail, the Delta Conveyance Project, and most directly, the possible construction of Pacheco reservoir next to San Luis Reservoir. The current document analyzes Alternative 4 from the San Luis Low Improvement Project in the cumulative impact analysis for this document, even though that Alternative is the action alternative in this document (p. 5-3).

¹ See <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100O9ZZ.pdf>

² See <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100OA05.pdf>

³ Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

A-4

Recommendation: Include impacts from Alternative 5 from the San Luis Low Point Improvement Project/Pacheco Reservoir Project in the cumulative air impacts analysis of the Final EIS.

A-4

Consider additional mitigation (described above) and staggering construction schedules to minimize emission of NAAQS from multiple construction projects in the area.

CWA Section 404 Permitting

The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of waters of the United States. These goals are achieved, in part, by controlling discharges of dredged or fill material pursuant to EPA's Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging practicable alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters.

The Supplemental Draft EIS does not address whether or not CWA Section 404 would apply to the project, but states that the dam raise alternative has the potential to impact wetlands (p. 6-7), that Reclamation and the San Luis Delta Mendota Water Authority would work with the U.S. Army Corps of Engineers regarding development of a CWA 404 permit, and that Mitigation Measure TERR-16 is intended to identify jurisdictional wetlands (p. 4-31).

Recommendations: Include in the Final EIS a discussion of the applicability of CWA Section 404 to project construction, operations, and maintenance activities. If applicable, discuss the permit requirements under this statute and identify the role of the Army Corps of Engineers in implementing these programs. Describe the results of the CWA Section 404 impacts analysis, as well as proposed mitigation, if applicable.

A-5

Conduct a USACE-verified jurisdictional delineation and quantify and describe in the Final EIS the waters of the U.S. that will be impacted by the proposed project.

Include the results of the CWA Section 404 (b)(1) Alternatives Analysis in the Final EIS with detailed discussion regarding determination of the LEDPA.

Discuss avoidance, minimization, and mitigation separately to clarify that aquatic resources are preserved and avoided to the greatest extent feasible by selecting the least damaging project type, spatial location and extent compatible with achieving the purpose of the project.

Present mitigation types sequentially in the following order:

- Avoidance - achieved through an analysis of appropriate and practicable alternatives and a consideration of impact footprint.
- Minimization - achieved through the incorporation of appropriate and practicable design and risk avoidance measures.
- Compensatory Mitigation - achieved through appropriate and practicable restoration, establishment, enhancement, and/or preservation of aquatic resource functions and services.

Should Reclamation choose not to include the results of a jurisdictional delineation and CWA Section 404 (b)(1) Alternatives Analysis within the Final EIS, EPA recommends that Reclamation include an assessment of the impacts to aquatic resources, an analysis of functions and values of aquatic resources that will be lost by the proposed project, and a discussion of possible mitigation to reduce those impacts.

A-5

Alternatives Analysis

EPA understands that Reclamation is striving to complete NEPA requirements in a concise manner. The current Supplemental Draft EIS has incorporated by reference a number of appendices that describe the alternatives, impacts to water quality, construction emissions and impacts to air quality, mitigation to offset impacts, and others. This method of providing relevant information creates challenges for reading and understanding the NEPA document.

A-6

Recommendation: EPA recommends that brief summaries be included in the main body of the EIS document itself, in addition to the incorporation by reference; for example, include a description of the need for increased reliability that is summarized in Chapter 3 of Appendix A. Readability is important for the public and decision-makers to understand the purpose and needs of projects and compare amongst alternatives.



CALIFORNIA FARM BUREAU FEDERATION

OFFICE OF THE GENERAL COUNSEL

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September 28th, 2020

Comment ID
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Re: B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement

Ms. Arthur and Mr. Arroyave:

The California Farm Bureau is California's largest farm organization, working to protect family farms and ranches on behalf of its nearly 36,000 members statewide and as part of a nationwide network of more than 5.5 million members. Organized 100 years ago as a voluntary, nongovernmental and nonpartisan organization, it advances its mission throughout the state together with its 53 county Farm Bureaus.

These comments are submitted in relation to the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement ("Draft SEIS/R").

San Luis Reservoir is a strategically located work-horse facility and cornerstone of California's massive Central Valley Project ("CVP") and State Water Project ("SWP") system. The combination of dam safety and water storage will significantly increase the resilience of California state-federal system.

The 130,000 acre-feet of additional storage space proposed as part of a 10-foot crest raise, over and above the 12-foot dam safety raise already contemplated, will inject sorely needed operational

B-1

flexibility on *both* sides of the hydrological cycle: On the one hand, it will create new spill-protected carry over, rescheduled water, transfer water, and dry-year reserve space to serve as a buffer against future droughts. On the other hand, the same space will also better capture excess flows in wet years. Both of these operational features will help to smooth some of the year-to-year water supply volatility of recent years and, in turn, help restore certainty and reliability lost over roughly the last two decades.

B-1

A confluence of circumstances make it important to move decisively and expeditiously in pursuing this key system-level improvement at this time. One circumstance is the dam safety 12-foot crest raise already identified as a “connected action” (i.e., the related B.F. Sisk Dam Safety of Dams Modification Project). This improvement alone will require an estimated 12 years to complete (from roughly 2025 to 2032); this same 12-year timeframe, in turn, coincides with the time required for an expanded, combined dam safety and water supply raise project, within the same footprint. Coordination of the two projects will avoid additional disruption and take advantage of the partial outage and other construction impacts already planned.

Additional project advantages include the unique availability of multiple cost-shares, including already approved Safety of Dams funds, potential Water Infrastructure Improvements for the Nation (“WIIN”) Act funding, local beneficiary shares as well as any other sources.

As a modest expansion on an off-stream reservoir, the upstream environmental impact of the proposed project is negligible in the grand scheme, and more than offset by expected environmental benefits. South-of-Delta refuge water benefits are one such benefit. Another derives from the increment in dry and wet year operational flexibility as a means to lessen year-to-year whiplash effects with operations otherwise constantly playing catch up, always one up or one down, continually constrained to make up in one year for what is lost in another.

While the exact cost-benefit calculus of a feasibility study currently in process remains to further refine, inform, and sort out selection of a final preferred alternative, it is encouraging to see a well-founded range of logical alternatives in the Draft SEIS/R, including Alternative 3 (the Dam Crest Raise Alternative), three related sub-alternatives (100% CVP-Only Storage, 45%:55% CVP/SWP Split Storage), and four additional options within the third “Investor Directed” alternative.

Within the “Investor Directed” third sub-alternative, specifically, there are proposed three configurations as follows:

- **Configuration A** – 180 TAF upper, carry-over water target; SLDMWA investor group, 78% agriculture, 7% M&I, and 15% federal refuge water.
- **Configuration B** – 180 TAF upper, carry-over target; SLDMWA investor group, 90% M&I, 10% ag.
- **Configuration C** – 310 TAF upper, carry-over target; SLDMWA investor group, 78% ag, 7% M&I, and 15% federal refuge water.
- **Configuration D** – 310 TAF upper, carry-over target; SLDMWA investor group, 90% M&I, 10% ag.

B-2

Which of the above-enumerated alternatives, sub-alternatives and/or sub-alternative “configurations” is ultimately selected is, again, a question to be further explored. Presumably, this

will occur in the San Luis-Delta Mendota Authority (“Authority”)’s and the Bureau of Reclamation (“Bureau”)’s pending feasibility study, and in any related negotiations (among CVP user groups, SWP interests, and ag and M&I interests within the Authority itself). As such, we refrain from prejudging any particular outcome. As a general observation, however, one essential consideration would appear to be reaching an acceptable arrangement on this shared facility between the CVP and SWP. A second is to reach an agreeable arrangement within the family of CVP contractors generally. Finally, there remains the division of potential benefits amongst agricultural versus municipal and industrial versus wildlife refuge water interests within the Authority itself.

B-2

Within the third “Investor Director” sub-alternative, given the relevant lack of critical demand on the M&I side, greater equity and an enhanced ability to meet critical unmet ag demands under either Configuration B or D would appear to offer the better option. Hard numbers to support these or any other option should emerge with greater clarity from the pending feasibility study. A final choice will likely further hinge on continuing negotiations, financial commitments, and the like. This is all part of the hard, but necessary process of formulating the best, most financially and technical sound, environmentally justified, and broadly supported project possible—even when, objectively, for this, we believe the proposed B.F. Sisk Dam and Reservoir Expansion Project should be as well positioned as any in the state. The good news, in the meantime, is that the Draft SEIS’s range of alternatives, sub-alternatives and various potential “configurations” within sub-alternatives affords considerable flexibility, appearing to provide an ample and well-grounded framework within which to work.

B-3

In contrast to the promise of some variation on the sub-alternatives under Alternative 3, Alternative 2, the ‘non-structural’ dry-year option, notably fails to meet the core project purpose as well as several objectives. These purposes and objectives include improved water supply reliability, increased operational flexibility, increased reliability for South of Delta contractors, and greater certainty of access to multi-year carryover, rescheduled, and transfer water in San Luis Reservoir. While potentially useful to provide a range of potential alternatives for comparison in the Draft SEIS/R, it is our observation that Alternative 2 seems to work directly against many or all of these stated project purposes and objectives.

B-4

In closing, the California Farm Bureau thanks the Authority and the Bureau for their hard work on this critically important and strategic piece of infrastructure, and for the opportunity to comment. We look eagerly forward to the joint selection of a final preferred alternative by the Authority and the Bureau, and to the prospect of expeditious progress through necessary permitting, procurement, and construction.

Questions regarding this correspondence may be directly, as an initial point of contact, to the undersigned, Justin Fredrickson at 916-561-5673 or jfredrickson@cbbf.com.

Sincerely,



Justin Fredrickson
Environmental Policy Analyst

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September 28, 2020

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Pablo Arroyave
San Luis and Delta-Mendota Water Authority
P.O. Box 2157
Los Banos, CA 93635

Subject: **B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement**

Dear Ms. Arthur:

On behalf of Friant Water Authority (FWA), thank you for the opportunity to provide comments on the Draft Environmental Impact Report and Supplemental Environmental Impact Statement (Draft EIR/SEIS) for the B.F. Sisk Dam Raise and Reservoir Expansion Project (Project), consistent with the requirements of the *California Environmental Quality Act* (CEQA) and *National Environmental Policy Act* (NEPA).

As stated in the Draft EIR/SEIS, the Project includes a crest raise to address seismic risks at the dam but also an additional 10-foot raise to increase storage capacity at the reservoir by approximately 120,000 acre-feet. In addition, a non-structural alternative is provided to improve water supply flexibility. The reservoir expansion component may include the Bureau of Reclamation as a federal cost-share partner under the *Water Infrastructure Investments for the Nation Act*.

FWA is a public agency representing a majority of the Friant Division of the Central Valley Project (CVP). FWA also operates and maintains the Friant-Kern Canal, which supplies San Joaquin River water stored at Millerton Lake to more than 30 Friant contractors, and to 15,000 family farms on more than one million acres of irrigable farm land on the eastside of the southern San Joaquin Valley. As such, we thoroughly appreciate that surface water storage is critical for the Valley and for all of California. Protecting existing storage infrastructure and adding it where feasible is important, and we support Reclamation and SLDMWA's efforts to achieve both at Sisk Dam.

FWA has reviewed the Draft EIR/SEIS, considering previously provided environmental scoping comments provided by FWA on June 15, 2020 and offer the following comments:

1. **The description of the Non-Structural Alternative (Alternative 2) is unclear.** Section 2.2.2 states "Under the Non-Structural Alternative, Reclamation would change its annual allocation process to reserve up to 310 TAF of stored CVP supply in San Luis Reservoir at the end of wetter years. This water would be reserved in San Luis Reservoir for allocation in subsequent drier years to South-of-Delta CVP contractors. In these drier years, the 310 TAF in

reserved supply would be allocated to M&I South-of-Delta CVP contractors, consistent with the CVP's current allocation of water supply stored in San Luis Reservoir (emphasis added)." Section 4.2.4 states "Under Alternative 2, water supply reserved in wetter water years by Reclamation for delivery to South-of Delta CVP contractors in drier years could potentially be diverted for delivery to the Exchange Contractors in critical water year types (emphasis added)." It is unclear if the reservation of 310 TAF of stored CVP supply from wet to drier years is to be allocated to all South-of-Delta (SOD) CVP contractors, M&I SOD CVP contractors, and/or Exchange Contractors.

C-1

2. **The modeling results show that Alternative 2 does not meet the water supply reliability objective and project purpose and need and should have been screened out during the alternatives development.** The Draft EIR/SEIS concluded that the operational modifications evaluated under the Non-Structural Alternative (Alternative 2) would result in significant and unavoidable water supply impacts, and no mitigation is proposed. According to Table 5 in Appendix E, SOD CVP agricultural water supply deliveries would decrease from 0 to 86 TAF per year for critical to wet years with an average annual impact of 42 TAF per year. There would be some small increase in deliveries in the spring, but those do not offset the decreases in the fall. Section 2.2.2 acknowledges that this alternative does not completely meet the project objectives. It states that it would partially meet the water supply reliability objective. The minor benefit provided to SWP contractors is within the modelling error of CalSim.

C-2

3. **Is it unclear how the impacts to CVP SOD agricultural contractors are distributed.** CVP SOD agricultural impacts should be disaggregated or addressed as requested in FWA's scoping comments:
- San Joaquin River Exchange Contractors;
 - Cross Valley Canal Contractors;
 - Water Service Contractors;
 - Repayment Contractors; and
 - San Joaquin River Restoration Settlement Paragraph 16(a) Water (i.e. Recapture and Recirculation).

C-3

4. **Use of CalSim II model is insufficient in evaluating impacts to San Joaquin River Exchange Contractors as the range of hydrology considered in the model does not account for the 2012 through 2016 drought.** Modeling should be revised to account for this condition, and/or proof that any CVP SOD water impacts would not apply to San Joaquin River Exchange Contractors.

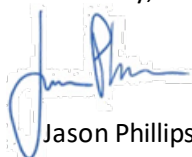
C-4

5. **Although most operational configurations of Alternative 3 have a beneficial effect on SOD CVP contractors, there are at times negative impacts during certain months and year types and it is unclear how those impacts are distributed** (see Comment #3).

C-5

Thank you for the opportunity to comment. You may contact me with any questions at 559-562-6305 or jphillips@friantwater.org.

Sincerely,



Jason Phillips
Chief Executive Officer



Comment ID
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September 28, 2020

Via email: carthur@usbr.gov and pablo.arroyave@sldmwa.org

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Subject: Contra Costa Water District Comments on B.F. Sisk Dam Raise and Reservoir Expansion Project Environmental Impact Report / Supplemental Environmental Impact Statement

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report / Supplemental Environmental Impact Statement (Draft EIR/SEIS) for the B.F. Sisk Dam Raise and Reservoir Expansion Project. Contra Costa Water District (CCWD) serves water from its intakes in the Sacramento-San Joaquin Delta for residential, commercial, and industrial uses in eastern and central Contra Costa County. CCWD relies on the Delta, together with recycled water, for 100% of its water supply, including Central Valley Project contract deliveries, diversions under CCWD's own water rights, and diversions under East Contra Costa Irrigation District's pre-1914 water right. As such, CCWD has a vital interest in the B.F. Sisk Dam Raise and Reservoir Expansion Project.

CCWD diverts water from four intakes in the Delta for treatment and/or delivery to CCWD's customers. The choice of which intake to use at any time is based largely on salinity at the intakes, with consideration of fish protection requirements for operation of CCWD's intakes and Los Vaqueros Reservoir. Additionally, CCWD diverts water from two of its intakes to storage in the Los Vaqueros Reservoir, an off-stream reservoir that is owned and operated by CCWD and was built to improve water quality and provide drought and emergency storage for CCWD's customers.

D-1

CCWD's operation of its diversion, storage, and conveyance facilities meets the permitting requirements of the Endangered Species Act and CESA through biological opinions (BOs) issued by the National Marine Fisheries Service and the United States Fish & Wildlife Service and an Incidental Take Permit (ITP) from the California Department of Fish and Wildlife (the "CCWD-specific BOs and ITP"), which are separate and distinct from the BOs for the coordinated long-term operation of the Central Valley Project (CVP) and State Water Project (SWP) and from the ITP for ongoing operation of the SWP. The CCWD-specific BOs and ITP include terms and conditions that fully mitigate for the effects of CCWD's diversions on covered species. CCWD, the Bureau of Reclamation (Reclamation), and the California Department of Water Resources (DWR) currently coordinate operations so that in-Delta standards and fishery regulations are met without additional limitations or restrictions on CCWD's operations beyond what is necessary to fully mitigate for CCWD's effects as identified in the CCWD-specific BOs and ITP.

D-1

The Draft EIR/SEIS uses modeling that is based on the assumption that CCWD would continue to be governed by its own biological opinions and permits, without new or additional restrictions or limitations as a result of the implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project. This is consistent with Reclamation's recent reconsultation on the long-term coordinated operation of the CVP and SWP (ROC on LTO), which encompasses Reclamation's compliance with the National Environmental Policy Act and the Endangered Species Act for all CVP operations. For consistency with the ROC on LTO, CCWD recommends that the Final EIR/SEIS for the B.F. Sisk Dam Raise and Reservoir Expansion Project include a statement that CCWD's facilities will continue to be operated and maintained according to the biological opinions and permits that specifically apply to those facilities, and that the implementation of the B.F. Sisk Dam Raise and Reservoir Expansion Project will not create new or additional limitations or restrictions on CCWD operations beyond the requirements set forth in those separate biological opinions and permits – thereby ensuring that CCWD will have opportunities to fill Los Vaqueros Reservoir that are at least comparable to the current conditions. This mirrors the language in Reclamation's Record of Decision on the ROC on LTO. Furthermore, CCWD would like to work with Reclamation and San Luis & Delta-Mendota Water Authority (SLDMWA) to coordinate operations to ensure that the B.F. Sisk Dam Raise and Reservoir Expansion Project minimizes adverse impacts to CCWD and its customers, protecting existing beneficial uses of water and supporting Reclamation's goals for improving overall CVP water supply reliability.

D-2

Finally, Reclamation and CCWD are the lead agencies in the development of the Phase 2 Los Vaqueros Reservoir Expansion Project, for which SLDMWA is a Local Agency Partner, evaluating potential participation in the project to help strengthen their water supply portfolios to better manage droughts, emergencies, climate change and regulatory challenges that limit other supplies. In August 2020, Reclamation released the Final Feasibility Report that recognized the need to increase CVP operational flexibility, to increase the reliability of water supplies delivered to the Bay Area and CVP contractors south of the Delta, and to secure long-term water supplies for south of Delta wildlife refuges. The Final Feasibility Report found that the Phase 2 Los Vaqueros Reservoir Expansion Project is technically, environmentally, economically, and financially feasible.

As the Phase 2 Los Vaqueros Reservoir Expansion Project and the B.F. Sisk Dam Raise and Reservoir Expansion Project move forward, CCWD is committed to working closely with Reclamation and SLDMWA to evaluate the potential to coordinate the operations of both projects, as well as other existing or proposed water storage and conveyance infrastructure, with the goal of improving overall CVP operational flexibility and increasing water supply reliability benefits for all parties.

CCWD looks forward to working collaboratively with Reclamation and SLDMWA to coordinate as described above to our mutual benefit. If you have any questions, please do not hesitate to get in touch with me at (925) 525-5445 or dsereno@ccwater.com.

Sincerely,



Deanna Sereno
Senior Policy Advisor

DS:wec

D-2



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CHARLTON H. BONHAM, Director



Comment ID
E

September 28, 2020

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San Luis and Delta-Mendota Water Authority
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Los Banos, California 93635

Cassandra Arthur
Bureau of Reclamation
Willows Construction Office
1140 West Wood Street
Willows, California 95988

**Subject: B.F. Sisk Dam Raise and Reservoir Expansion Project (Project)
Draft Environmental Impact Report/Supplemental Environmental Impact
Statement
SCH #: 2009091004**

Dear Mr. Arroyave and Ms. Arthur:

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS) from the San Luis and Delta-Mendota Water Authority (Authority) and Bureau of Reclamation (Reclamation) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

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CDFW ROLE

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The “CEQA Guidelines” are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.

E-1

Water Rights: The use of unallocated stream flows is subject to appropriation and approval by the State Water Resources Control Board (SWRCB) pursuant to Water Code § 1225. CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Certain fish and wildlife are reliant upon aquatic ecosystems, which in turn are reliant upon adequate flows of water. CDFW therefore has a material interest in assuring that adequate water flows within streams for the protection, maintenance and proper stewardship of those resources. CDFW provides, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities.

PROJECT DESCRIPTION SUMMARY

Proponent: San Luis and Delta-Mendota Water Authority and Bureau of Reclamation

Objective: In 2005, Reclamation completed a risk analysis of B.F. Sisk Dam that concluded there is justification to take action to reduce risk to the downstream public from a potential severe earthquake. Consequently, Reclamation, in coordination with the California Department of Water Resources, completed the B.F. Sisk Dam Safety of Dams (SOD) Modification Project EIS/EIR in December 2019. The Crest Raise Alternative was selected to be implemented. Raising the crest elevation 12 feet would increase the distance between the water surface and the dam crest to prevent reservoir overtopping and failure in the event of dam deformation from a seismic event.

The Project proposes additional fill material on the dam embankment to raise the dam crest an additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam SOD Modification Project. The 10-foot embankment raise would support an increase in reservoir storage capacity of 130 thousand acre-feet. Project activities include levee modifications to the banks of the San Luis Reservoir via fill to a section of State Route 152 where it crosses over Cottonwood Bay between milepost MER R5.239 and MER R5.806, fill to State Route 152 at milepost MER R6.295, and fill to raise a levee at Dinosaur Point.

Location: The Project location is the San Luis Reservoir, located approximately 12 miles west of Los Banos, in Merced County, California.

Timeframe: Construction of Project activities is scheduled to start in September 2025 and completed in 8 years. Preconstruction and design activities will begin in 2022.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Authority and Reclamation in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

There are many special-status resources present in and adjacent to the Project area. These resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the State and federally threatened California tiger salamander (*Ambystoma californiense*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the State endangered foothill yellow-legged frog (*Rana boylei*), the State endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), the fully protected golden eagle (*Aquila chrysaetos*), the State threatened Swainson's hawk (*Buteo swainsonii*), the federally threatened and State species of special concern California red-legged frog (*Rana draytonii*), the State candidate-listed as threatened mountain lion (*Puma concolor*), and tule elk (*Cervus canadensis nannodes*). In order to adequately assess any potential impacts to biological resources, focused biological surveys conducted by a qualified wildlife biologist are recommended during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project area. Properly conducted biological surveys, and the information assembled from them, are essential to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol-level surveys, especially in the areas not in irrigated agriculture, and to identify any Project-related impacts under CESA and other species of concern.

I. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: California Tiger Salamander (CTS)

Issue: CTS have the potential to occur in the Project site. Aerial imagery shows that the Project site consists of upland habitat, which likely serve as refugia for CTS that are dispersing from and into the area, and aquatic features that may provide CTS breeding habitat.

Specific Impacts: Aerial imagery shows that the proposed Project site has upland habitat for refugia which may function as breeding habitat. Potential ground- and vegetation-disturbing activities associated with Project activities include: collapse of small mammal burrows, inadvertent entrapment, loss of upland refugia, water quality impacts to breeding sites, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact would be significant: Up to 75% of historic CTS habitat has been lost to urban and agricultural development (Searcy et al. 2013). Loss, degradation, and fragmentation of habitat are the primary threats to CTS in both the Central and San Joaquin valleys. Contaminants and vehicle strikes are also sources of mortality for the species (CDFW 2015, USFWS 2017a). The Project site is within the range of CTS and has suitable habitat (i.e., grasslands interspersed with burrows and vernal pools). CTS have been determined to be physiologically capable of dispersing up to approximately 1.5 miles from seasonally flooded wetlands (Searcy and Shaffer 2011) and have been documented to occur near the Project site (CDFW 2020). Given the presence of suitable habitat within the Project site, ground-disturbing activities have the potential to significantly impact local populations of CTS.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CTS, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final Environmental Impact Report (EIR) prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 1: Focused CTS Protocol-level Surveys

While Mitigation Measure TERR-3 of the draft EIR/SEIS states that surveys will be conducted for CTS, CDFW recommends that a qualified biologist conduct

protocol-level surveys in accordance with the USFWS “Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander” (USFWS 2003) at the appropriate time of year to determine the existence and extent of CTS breeding and refugia habitat. The protocol-level surveys for CTS require more than one survey season and are dependent upon sufficient rainfall to complete. As a result, consultation with CDFW and the USFWS is recommended well in advance of beginning the surveys and prior to any planned vegetation- or ground-disturbing activities. CDFW advises that the protocol-level survey include a 100-foot buffer around the Project area in all areas of wetland and upland habitat that could support CTS. Please be advised that protocol-level survey results are viable for two years after the results are reviewed by CDFW.

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Recommended Mitigation Measure 2: CTS Avoidance

If CTS protocol-level surveys as described in the above Mitigation Measure 1 are not conducted, CDFW advises that a minimum 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable upland refugia habitat within and/or adjacent to the Project site. Further, CDFW recommends potential or known breeding habitat within and/or adjacent to the Project site be delineated with a minimum 250-foot no-disturbance buffer. Both upland burrow and wetland breeding no-disturbance buffers are intended to minimize impacts to CTS habitat and avoid take of individuals. Alternatively, the applicant can assume presence of CTS within the Project site and obtain from CDFW a State Incidental Take Permit (ITP) in accordance with Fish and Game Code section 2081 subdivision (b).

Recommended Mitigation Measure 3: CTS Take Authorization

If through surveys it is determined that CTS are occupying or have the potential to occupy the Project site, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities to comply with CESA. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b). As stated above, in the absence of protocol surveys, the Authority can assume presence of CTS within the Project site and obtain an ITP from CDFW.

COMMENT 2: San Joaquin Kit Fox (SJKF)

Issue: The Project has the potential to impact SJKF. The area from around Los Banos Reservoir to the north of San Luis Reservoir has been identified by CDFW and the USFWS as a migratory corridor critical to the continued existence and genetic diversity of the northern kit fox population – with the Santa Nella area being identified as a critical SJKF migratory “pinch-point” within this area (HT Harvey and Associates 2004). The creation of the San Luis Reservoir and O’Neil Forebay

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resulted in a large migratory barrier to the north-south migration of SJKF, and busy highways in the area such as State Routes 152 and 33 and Interstate 5, as well as the existing urban development further compounded this problem. As a result, any grassland, shrub land, or dry farmed habitat features in this area that could serve as movement or rest areas for SJKF has very high conservation values for this species. Any loss of these features within the corridor is potentially significant. In addition, SJKF has the potential to occur on the Project site because of the proximity of the Project site to the Santa Nella area. Any take of SJKF without appropriate take authorization would be a violation of Fish and Game Code.

Specific impact: The draft EIR/SIES state that to compensate for the 8-year loss of the Santa Nella area SJKF movement corridor during construction, Mitigation Measure TERR-12 will be implemented which propose construction of a broad (e.g. 80- to 120- foot wide) earthen bridge over the mid-portion of the B.F. Sisk Dam spillway, and finishing the upper portion of State Route 152 causeway at Cottonwood Bay with earthen materials. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with Project activities include den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). The Project area consists and is bordered by some of the only remaining undeveloped land in the vicinity. Therefore, subsequent ground-disturbing activities have the potential to significantly impact local SJKF populations.

E-3

Recommended Analysis

CDFW recommends the draft EIR/SEIS quantify and describe the direct and indirect potential impacts to SJKF, including any impacts to the SJKF movement corridor and other conservation areas. CDFW recommends the evaluation include the cumulative impacts to SJKF from other existing, planned and potential development from south of the Los Banos Reservoir to north of the San Luis Reservoir that may impact existing upland habitat.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

To evaluate potential impacts to SJKF, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 4: SJKF Surveys

CDFW agree with Mitigation Measure TERR-12 of the draft EIR/SEIS that presence/absence of SJKF be assessed by conducting surveys and implementing den avoidance buffers following the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011). Specifically, CDFW advises conducting these surveys in all areas of potentially suitable habitat no less than 14 days and no more than 30 days prior to beginning of ground-disturbing activities.

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Recommended Mitigation Measure 5: SJKF Take Authorization

SJKF detection warrants consultation with CDFW to discuss how to avoid take, or if avoidance is not feasible, to acquire an ITP by the Authority prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 3: Foothill Yellow-Legged Frog (FYLF) and California Red-Legged Frog (CRLF)

Issue: FYLF are primarily stream dwelling and requires shallow, flowing water in streams and rivers with at least some cobble-sized substrate; CRLF primarily inhabit ponds but can also be found in other waterways including marshes, streams, and lagoons, and the species will also breed in ephemeral waters (Thomson et al. 2016). FYLF and CRLF have been documented to occur in the vicinity of the Project site (CDFW 2020). The Project site contains habitat that may support both species. Avoidance and minimization measures are necessary to reduce impacts to FYLF and CRLF to a level that is less than significant.

Specific impact: Without appropriate avoidance and minimization measures for FYLF and CRLF, potentially significant impacts associated with the Project's activities include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs, larvae and/or young, and direct mortality of individuals.

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Evidence impact would be significant: FYLF and CRLF populations throughout the State have experienced ongoing and drastic declines and many have been extirpated; historically, FYLF occurred in mountain streams from the San Gabriel River in Los Angeles County to southern Oregon west of the Sierra-Cascade crest (Thomson et al. 2016). Habitat loss from growth of cities and suburbs, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators, such as bullfrogs are the primary threats to FYLF and CRLF (Thomson et al. 2016, USFWS 2017b). Project activities have the potential to significantly impact both species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to FYLF and CRLF, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation

measures into the final EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 6: FYLF and CRLF Surveys

Mitigation Measure TERR-3 of the draft EIR/SEIS states that surveys will be conducted for CRLF, and Section 3.7.2.2 states that FYLF is considered unlikely in San Luis Creek. CDFW recommends that a qualified wildlife biologist conduct surveys for FYLF and CRLF in accordance with the USFWS "Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog" (USFWS 2005) to determine if FYLF and CRLF are within or adjacent to the Project area; while this survey is designed for CRLF, the survey may be used for FYLF with focus on stream/river habitat.

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Recommended Mitigation Measure 7: FYLF and CRLF Avoidance

If any FYLF or/and CRLF are found during pre-construction surveys or at any time during construction, consultation with CDFW is warranted to determine if the Project can avoid take. CDFW recommends that initial ground-disturbing activities be timed to avoid the period when FYLF and CRLF are most likely to be moving through upland areas (November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends a qualified biologist monitor construction activity daily for FYLF and CRLF.

Recommended Mitigation Measure 8: FYLF Take Authorization

If through surveys it is determined that FYLF are occupying or have the potential to occupy the Project site and take cannot be avoided, take authorization would be warranted prior to initiating ground-disturbing activities. Take authorization for the Authority would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 4: Swainson's Hawk (SWHA)

Issue: SWHA have the potential to forage or nest near or on the Project site. The California Natural Diversity Database shows SWHA occurrences throughout the area near the Project site (CDFW 2020). In addition to annual grasslands, SWHA are known to forage in alfalfa, fallow fields, dry-land and irrigated pasture, rice land (during the non-flooded period), cereal grain crops (including corn after harvest), beet, tomato, and other low-growing row or field crops.

Specific impacts: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct

E-5

mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact is potentially significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits their local distribution and abundance (CDFW 2016). The Project as proposed, particularly construction of new facilities, will involve noise, groundwork, and movement of workers that could affect nests and foraging which has the potential to result in nest abandonment and decreased feeding, significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to SWHA, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the CEQA document prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 9: SWHA Surveys

CDFW agree with Mitigation Measure TERR-7 of the draft EIR/SEIS that surveys for SWHA will be conducted within 0.5 miles of construction areas. CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC, 2000) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest and foraging sites prior to initiating ground-disturbing activities.

E-5

Recommended Mitigation Measure 10: SWHA No-disturbance Buffer

CDFW agree with Mitigation Measure TERR-7 of the draft EIR/SEIS that a minimum no disturbance buffer of ½-mile be delineated around active nests if construction cannot be limited to occur outside of the nesting season. CDFW recommends the 0.5-mile buffer be implemented until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Recommended Mitigation Measure 11: SWHA Foraging Habitat

Mitigation Measure TERR-7 of the draft EIR/SEIS states that SWHA foraging habitat loss within 1 mile of active SWHA nests will be compensated by preserving, in perpetuity, suitable foraging habitat at a ratio of 1:1. CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on CDFW's Staff Report Regarding

Mitigation for Impacts to Swainson's Hawks (CDFG, 1994), which recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites and the amount of habitat compensation is dependent on nest proximity. In addition to fee title acquisition or conservation easement recorded on property with suitable grassland habitat features, mitigation may occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.

E-5

Recommended Mitigation Measure 12: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected during surveys and the CDFW recommended ½-mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization for the Authority through the issuance of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

COMMENT 5: Tule Elk

Issue: Elk are California's largest land mammal and an important wildlife resource whose population growth in recent decades has been of great interest to the public. Prior to non-indigenous settlement, it is estimated the elk population in California was more than 500,000 animals. Non-indigenous settlement decimated California's elk populations. By 1872, only a few tule elk remained in the San Joaquin Valley. Conservation organizations and hunters were able to restore elk to the California landscape. Elk population growth since 1970 has been significant and California now supports approximately 5,700 tule elk (CDFW 2018). CDFW regional biologists have confirmed tule elk within and adjacent to the Project site. The Project has the potential to impact this species.

E-6

Specific impact: Tule elk are known to utilize the Project site and adjacent areas, especially below the B.F. Sisk Dam. Potential impacts to tule elk as a result of the Project includes loss of habitat, mortality resulting from vehicle collisions, and entanglement with fences and other structures. Without appropriate mitigation measures for tule elk, potentially significant impacts include loss of habitat.

Evidence impact is potentially significant: Habitat loss resulting from development or conversion to other land uses are the primary threat to tule elk. The Project site is within the range of tule elk and is utilized by tule elk based on CDFW population assessment surveys. As a result, ground-disturbing activities associated

with development of the Project site have the potential to significantly impact local populations of this species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to tule elk, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the final EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

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Recommended Mitigation Measure 13: Tule Elk habitat

The Project as proposed will result in the loss of tule elk habitat. CDFW recommends that tule elk habitat be conserved at a minimum 1:1 ratio to the loss of habitat within the general vicinity of the Project site.

Recommended Mitigation Measure 14: Fencing

Increasing the storage capacity of the San Luis Reservoir may result in realignment to the perimeter fencing. Physical barriers such as fencing, mesh wire, panels, electric fence, and visual barriers (such as landscaping cloth hung between fence poles) have the potential to impact tule elk. CDFW recommends not utilizing physical barriers that may impede tule elk access to water, and foraging areas.

COMMENT 5: Mountain lion

On June 25, 2019, a petition to list the mountain lion (*Puma concolor*), Southern California/Central Coast Evolutionarily Significant Unit (ESU) in Southern and Central California, as Threatened or Endangered pursuant to the California Endangered Species Act (California Fish and Game Code §§ 2050 et seq., "CESA") was submitted to the California Fish and Game Commission. Specifically, the petitioners requested listing as a "threatened species" for the ESU comprised of the following recognized mountain lion subpopulations: 1) Santa Ana Mountains 2) Eastern Peninsular Range 3) San Gabriel/San Bernardino Mountains 4) Central Coast South (Santa Monica Mountains) 5) Central Coast North (Santa Cruz Mountains) 6) Central Coast Central. In April 2020, Fish and Game Commission determined that the petitioned action "may be warranted" and established mountain lion within the proposed ESU as a candidate species under CESA. As a candidate species, mountain lion within the proposed ESU now has all of the protections afforded to an endangered species under CESA.

E-7

The Project site is adjacent to the Central Coast North ESU. Therefore, CDFW advises analyzing Project impacts to the subpopulation; CDFW advises including and referencing recent linkage studies on mountain lion that includes these six subpopulations of mountain lions in California. Based on this analysis, CDFW

recommends the final EIR prepared for this Project include robust feasible avoidance, minimization, and mitigation measures to reduce impacts to mountain lion to less than significant.

E-7

COMMENT 6: Riparian Impacts

Issue: The increased storage capacity as a result from the additional 10 feet above the 12-foot embankment raise under development by the B.F. Sisk Dam SOD Modification Project will impact riparian habitat and associated species throughout the San Luis Reservoir. A hydrologic study or other information may be needed to identify and analyze the impacts of the removal of riparian woodland around the San Luis Reservoir, and the species supported by these habitats.

Specific Impact: Watershed and habitat protection are vital to the CDFW's management of California's diverse fish, wildlife, and plant resources. The various riparian zones around the San Luis Reservoir (i.e. San Luis Creek) supports riparian woodland habitat and associated annual grassland, and may potentially support several sensitive species listed as threatened or endangered under CESA and the Federal Endangered Species Act (FESA), as well as several State special-status species including California red-legged and foothill yellow-legged frog. CDFW is concerned that the loss of riparian habitat will result in direct and cumulative adverse impacts to these fish and wildlife and other public trust resources.

E-8

Recommended Analysis

CDFW recommends a hydrologic study or other information that identify and analyze the impacts to the riparian woodland and aquatic habitats around the San Luis Reservoir and the species supported by these habitats.

Study Plan

Where a project could affect the hydrologic regime of a watershed, the necessary elements to successfully maintain the biological diversity and avoid impacts to threatened and endangered species needs to be identified to facilitate sound management decisions. CDFW recommends the Lead Agency develop and implement a site-specific study to evaluate potential Project-related impacts to riparian habitat and determine appropriate measures to reduce impacts to a less than significant level. Mitigation Measure TERR-16b states that "a wetland mitigation and monitoring plan will be developed with CDFW, USACE, or RWQCB to detail mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters due to construction activities and for other CDFW jurisdictional areas. The plan will quantify the total acreage affected; provide for mitigation to wetland or riparian habitat; specify annual success criteria for mitigation sites; specify monitoring and reporting requirements; and prescribe site-specific plans to compensate for wetland losses resulting from the Project consistent with the USACE's no net loss policy."

At a minimum, CDFW recommends the study plan include the following:

1. Analysis of any impacts to flows necessary to maintain the health and perpetuation of aquatic and riparian resources adjacent to the reservoir that result from Project activities.
2. A complete updated (within the last two years) assessment of the flora and fauna within, and adjacent to, the Project footprint with particular emphasis on identifying endangered, threatened, and sensitive species and sensitive habitats. The assessment should be based on the findings of appropriate applicable protocol surveys to determine the presence or absence of special-status species within the Project footprint. These surveys should be conducted on the project site, including adjacent habitats.
3. A quantification of the loss of biological resources that will occur as a result of the inundation of riparian habitat and associated tributaries, and an evaluation of the impacts to resources.
4. A mitigation plan to replace lost plant, fish, and/or wildlife resources including, but not limited to the species or habitats described above. This plan must include a survey which quantifies the loss of resources that will occur as a result of this project. It must also specify measures that will be taken to offset impacts to resources and outline specific mitigation and monitoring programs.

E-8

Comment 7: CDFW-Owned and Managed Lands

CDFW Wildlife Areas are acquired for the protection and enhancement of habitat for a wide variety of species and are open to the public for wildlife viewing, hiking, hunting, fishing, and nature tours. The construction and staging activities near CDFW lands could severely limit the wildlife and public use values of these lands as well as alter the way these lands are managed by CDFW. Most Wildlife Areas depend on visitor fees for operation, maintenance and management. CDFW has concerns that Project-related construction and staging activities may negatively impact the number of visitors to Wildlife Areas resulting in reduced revenues; thereby reducing or eliminating the future enhancement of public recreational opportunities and wildlife habitat provided by these areas.

E-9

Specific CDFW-owned lands that are in the Project vicinity include Cottonwood Creek Wildlife Area (Upper and Lower), San Luis Reservoir Wildlife Area, O'Neill Forebay Wildlife Area, Volta Wildlife Area, Los Banos Wildlife Area, North Grasslands Wildlife Area and Cañada de los Osos Ecological Reserve. It is of note that the Cottonwood Creek, O'Neill Forebay, and San Luis Reservoir Wildlife Areas were set aside/created as USBR mitigation for the creation of San Luis Reservoir, and these lands appear to be those most likely to be directly impacted by the project. CDFW requests that the final EIR evaluate how construction, staging, and road/highway modification activities may temporarily or

permanently impact public access and use of these Wildlife Areas in addition to potential resource impacts. It is of note that all of these properties are known to support state and federally listed species.

E-9

Comment 8: Cumulative Impacts Related to High Speed Rail

The Bay Area to Merced alignment of the High Speed Train is also planned for the project area vicinity. The currently proposed High Speed Train alignment would run along Henry Miller Road to the east of the Project Area and ultimately would tunnel underneath the Cottonwood Creek Wildlife Area, in close proximity to B.F. Sisk Dam and possibly with overlapping staging, traffic, and road use/construction impacts. CDFW recommend that the draft EIR/SEIS evaluate the potential impacts of both the High Speed Train and the proposed Project being constructed simultaneously or in close proximity temporally. CDFW recommends related cumulative impacts to CDFW lands and biological resources also be analyzed and addressed.

E-10

Comment 9: Fisheries and Aquatic Resources

The environmental impacts analysis for operations of the Dam Raise Alternative indicates increases in Delta exports during wet and above normal years, with Delta outflows generally decreasing during wetter years and increasing during drier years. However, it is difficult to interpret the model results for operational impacts to water quality and aquatic resources (Appendices D and J2) based on a limited description of the CalSim II analysis. CDFW recommends that the final EIR includes detailed documentation of the CalSim II model assumptions and methodology used to calculate and summarize the modeling results. Additionally, modeling results that include averages should also include estimates of variance to better evaluate the effect on fisheries resources. Fisheries resources respond to the immediate effects experienced rather than averaged effects over long periods of time. The use of long-term summarized averages without variance estimation or documentation of methodology obscures the true proposed Project impacts on fisheries resources.

E-11

While hydrodynamic changes can be used as proxies for aquatic habitat conditions, CalSim II should not be used in lieu of life cycle models and other appropriate tools developed to evaluate the effects of operational changes to fisheries and aquatic resources. CDFW recommends the following model analyses to evaluate effects of Project operations on fisheries:

Winter-run Chinook Salmon, Spring-run Chinook Salmon, Delta Smelt, Longfin Smelt:

- Channel Velocity (DSM2-HYDRO)
- Entry into Interior Delta
- Flow Routing into Channel Junctions

Winter-run Chinook Salmon and Spring-run Chinook Salmon:

- Current Sacramento River Temperature Model

- Martin 2017 Temperature Model
- Through-Delta Survival
 - Delta Passage Model
 - Newman 2003 (spring-run only)
 - Perry et al. 2018 STARS
- Life Cycle Models (winter-run only)
 - Interactive Object-oriented Salmon Simulation (IOS)
 - Oncorhynchus Bayesian Analysis (OBAN)
 - NMFS Winter Run Life Cycle Model (NMFS WRLCM)

E-11

Longfin Smelt:

- Kimmerer 2009 (outflow)

Delta Smelt and Longfin Smelt (habitat related, quantitative/qualitative analyses):

- Migration impedance and lost reproductive opportunity
- Changes in larval transport
- South Delta facilities-entrainment
- Microcystis
- Reduction in transport of food web materials
- Sediment removal and changes in turbidity

Comment 10: Cumulative Impacts Related to Los Vaqueros Reservoir Expansion

The Los Vaqueros Reservoir Expansion Project is anticipated to be constructed and in operation before completion of the Project. This project could result in long-term changes to Delta operations, provide CVP operational flexibility, and increase refuge water supply deliveries to south-of-Delta refuges. CDFW recommends that the cumulative effects analysis for water quality (Section 5.1.1) and surface water supply (Section 5.1.2) include the Los Vaqueros Reservoir Expansion Project as a reasonably foreseeable project that could contribute to cumulative impacts.

E-12

II. Editorial Comments and/or Suggestions

Fully Protected Raptors: The fully protected bald eagle and golden eagle are known to nest and forage in the vicinity of the Project site. Projects within occupied territories have the potential to significantly impact the species. CDFW recommends that focused surveys be conducted by experienced biologists prior to Project implementation. To avoid impact to the species, CDFW recommend incorporating survey protocols developed by CDFW (CDFG, 2010) and the USFWS (USFWS, 2010). Mitigation Measure TERR-8 of the draft EIR/SEIS states that if active nests are identified, a minimum 660-foot to 0.5-mile buffer zone depending upon visibility and severity of the

E-13

activity will be implemented. In the event that either species are found within 0.5-mile of the Site, CDFW recommends that a qualified wildlife biologist be on-Site during all ground disturbing/construction related activities and that a 0.5-mile no-disturbance buffer be put into effect. If the 0.5-mile no-disturbance buffer cannot feasibly be implemented, contacting CDFW to assist with providing and implementing additional avoidance measures is advised. CDFW recommend these mitigation measures for fully protected raptor species be addressed in the final EIR prepared for the Project.

E-13

Lake and Streambed Alteration: Project activities include levee modifications to the banks of the San Luis Reservoir via fill to a section of State Route 152 where it crosses over Cottonwood Bay between milepost MER R5.239 and MER R5.806, fill to State Route 152 at milepost MER R6.295, and fill to raise a levee at Dinosaur Point. Therefore, the Project is subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires the Authority to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake; or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent, such as the unnamed stream within the Project site, as well as those that are perennial in nature.

E-14

For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593. It is important to note, CDFW is required to comply with CEQA, as a Responsible Agency, when issuing a Lake or Streambed Alteration Agreement (LSAA). If inadequate, or no environmental review, has occurred, for the Project activities that are subject to notification under Fish and Game Code section 1602, CDFW will not be able to issue the Final LSAA until CEQA analysis for the project is complete. This may lead to considerable Project delays.

Water Rights: CDFW recommends the final EIR address whether the Project proponents anticipate applying for the water rights associated with the proposed increase in storage capacity for the reservoir. CDFW recommends the final EIR address how the Project will affect existing water rights including those associated with the Central Valley Project (CVP) and State Water Project (SWP) water supply, pre-1914 appropriative rights, riparian rights, prescriptive rights, and appropriative rights approved under licenses and SWRCB WR Orders.

E-15

Project-related diversions to storage may impact riparian, wetland, fisheries and terrestrial (upland) wildlife species and their habitats. As stated previously, CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Given the potential for impacts to sensitive species and their

habitats, it is advised that consultation with CDFW occur well in advance of any SWRCB water right application process.

E-15

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, CTS, SJKF, and CRLF. Take under FESA is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

E-16

Carried-over Water: The Investor-Directed Storage Subalternative on page 2-10 states, *"Investors could forego delivery of their allocated CVP Project water for delivery in subsequent year(s). This unused CVP Project water would be carried-over to subsequent year(s) and continue to be stored in San Luis Reservoir until investor requests delivery of the water without the risk of "spill."* However, footnote 6 defines carried-over water as *"...Rescheduled Water. Rescheduled Water is defined as allocated CVP water carried over to subsequent water year(s) by the water contractor pursuant to Reclamation's then-current Rescheduling Guidelines. The water contractors, in storing this carried-over supply in San Luis Reservoir, take on a risk of potentially losing it if San Luis Reservoir fills the next year and that supply is "spilled" (converted to CVP supplies for following year's allocation)."* These two statements seem contradictory of each other and CDFW requests clarification on the description of carried-over water and the risk of "spill."

E-17

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

E-18

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project

Pablo Arroyave; Casandra Arthur
San Luis and Delta-Mendota Water Authority; Bureau of Reclamation
September 28, 2020
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approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist the Authority and Reclamation in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact Jim Vang, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 254, or by electronic mail at Jim.Vang@wildlife.ca.gov.

Sincerely,



Julie A. Vance
Regional Manager

E-18

Pablo Arroyave; Casandra Arthur
San Luis and Delta-Mendota Water Authority; Bureau of Reclamation
September 28, 2020
Page 19

cc: State Water Resources Control Board
Division of Water Rights
Post Office Box 2000
Sacramento, California 95812

United States Army Corps of Engineers
San Joaquin Valley Office
1325 "J" Street, Suite #1350
Sacramento, California 95814-2928

ec: Patricia Cole; Patricia_Cole@fws.gov

Annette Tenneboe, Linda Connolly, Lara Sparks, Cristen Langner, Angela
Llaban; CDFW

Literature Cited

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USFWS. 2017a. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U. S. Fish and Wildlife Service, Region 8, Sacramento, California. June 2017.

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Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM
(MMRP)**

PROJECT: B.F. Sisk Dam Raise and Reservoir Expansion Project

SCH No.: 2009091004

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>Before Disturbing Soil or Vegetation</i>	
Mitigation Measure 1: Focused CTS Protocol-level Surveys	
Mitigation Measure 3: CTS Take Authorization	
Mitigation Measure 4: SJKF Surveys	
Mitigation Measure 5: SJKF Take Authorization	
Mitigation Measure 6: FYLF and CRLF Surveys	
Mitigation Measure 8: FYLF Take Authorization	
Mitigation Measure 9: SWHA Surveys	
Mitigation Measure 11: SWHA Foraging Habitat	
Mitigation Measure 12: SWHA Take Authorization	
Mitigation Measure 13: Tule Elk habitat	
<i>During Construction</i>	
Mitigation Measure 2: CTS Avoidance	
Mitigation Measure 7: FYLF and CRLF Avoidance	
Mitigation Measure 10: SWHA No-disturbance Buffer	
Mitigation Measure 14: Fencing	

From: [Arthur, Casandra N](#)
To: [Park, Christopher](#)
Cc: [Pablo Arroyave](#); [Kashyap, Anusha V.](#)
Subject: Fw: [EXTERNAL] WAPA comments on B.F. Sisk Dam Raise EIS
Date: Tuesday, September 29, 2020 8:02:34 AM
Attachments: [B.F. Sisk EIS - WAPA comments 20200928.docx](#)

Good Morning Chris,

Comments from WAPA attached.

Thank you,
Casey

From: Prowatzke, Michael <Prowatzke@WAPA.GOV>
Sent: Monday, September 28, 2020 12:51 PM
To: Arthur, Casandra N <carthur@usbr.gov>
Cc: Wolfe, Autumn <Wolfe@WAPA.GOV>; Sethi, Arun <ASethi@WAPA.GOV>; Saare, LaTisha <Saare@WAPA.GOV>; Danielson, Ammon <Danielson@WAPA.GOV>; Anderson, Sonja <SAnderso@WAPA.GOV>
Subject: [EXTERNAL] WAPA comments on B.F. Sisk Dam Raise EIS

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Casey—Please see the attached compiled comments from the Western Area Power Administration regarding the B.F. Sisk Dam Raise project. We are submitting these as part of the public comment process for the environmental impact statement. If there are any questions related to our concerns, please do not hesitate to reach out to us for clarification. Thank you for the opportunity to comment.

Michael Prowatzke | Biologist

Western Area Power Administration | Sierra Nevada Region | Folsom, CA
(O) 916.353.4081 | (M) 916.203.7454 | [prowatzke\[at\]wapa.gov](mailto:prowatzke[at]wapa.gov)

The Western Area Power Administration (WAPA) appreciates the opportunity to comment on the proposed B.F. Sisk Dam Raise Project. In light of WAPA's mission to market and deliver clean, renewable, reliable, cost-based federal hydroelectric power and related services, we provide the following comments, with particular concern toward the interest of Central Valley Project (CVP) power stakeholders.

- 1) WAPA contends that the added power demand is not "less than significant", as the document states in section 4.14.5.3, based on the information provided. The authors submit that the "increase in power demand [for pumping/filling] is projected to be 46,475,000 megawatt-hours per year", and that the "existing 10,600 megawatts of production capacity in the Western Area Power Administration system can meet this increased demand". Clarification of these figures is in order, as the CVP has an installed capacity of approximately 2,000 megawatts, not 10,600 megawatts. This corrected number would provide a maximum capacity of approximately 17,520,000 megawatt-hours per year (2,000 megawatts X 8,760 hours/year), which is well short of the projected increase in power demand. Even using the document's stated 10,600 megawatt capacity (or 92,856,000 megawatt-hours per year), the new requirement for pumping would consume over half the capacity of the CVP, and this is not a "less than significant" amount of added power demand. F-1
- 2) Regardless of what power source is used, WAPA recommends that the project proponents perform a system impact study to ensure that increased local demand would not cause any local power system reliability issues, or to determine whether any upgrades would be needed to handle this transmission and delivery requirement. This analysis should not only determine whether the local lines have a rated capacity to handle this load but also ensure that expected pumping times and increased power demand will not contribute to congestion on the local transmission network during critical times of the day/year. F-2
- 3) Although the authors state that the "energy [demand for pumping] could be partially recaptured when water is released back into the forebay", WAPA expresses concern that the document downplays the potential losses with respect to the CVP. While on the surface the claim of power recapture seems tenable, it overlooks two key system-related factors. First, the San Luis generating unit is on the CAISO system rather than the CVP system. As such, this increased pumping could represent greater "project use" and subsequently less base resource available to CVP power stakeholders. Second, since the San Luis Dam is operated by the State of California Department of Water Resources, and they may base their power releases on market conditions or other considerations that may not necessarily align with (CVP) project-related interests, this has potential to further reduce the "recaptured" benefit to CVP power stakeholders. F-3
- 4) Finally, as this project seems to deliver a significant benefit to water users and seems to generate little power benefit (or even potentially a net loss to CVP power stakeholders), WAPA would like to confirm that reimbursable costs resulting from the proposed project would not be assigned to the power function but rather to water users who are the primary beneficiaries of the proposed project. F-4

WAPA remains committed to working with the Bureau of Reclamation and welcomes the opportunity to discuss any or all of these comments. Please contact us if we can be of further assistance going forward.

September 28, 2020

Comment ID
G



Sent via email: carthur@usbr.gov, pablo.arroyave@sldmwa.org

Ms. Casandra Arthur
Bureau of Reclamation
Willows Construction Office
1140 W. Wood Street
Willows, CA, 95988

Mr. Pablo Arroyave
San Luis and Delta-Mendota Water Authority
842 6th Street
Los Banos, CA 93635

Subject: CEQA and NEPA Comments on B.F. Sisk Dam Raise and Reservoir Expansion
Project Draft Environmental Impact Report/Supplemental Environmental Impact
Statement

Dear Ms. Arthur and Mr. Arroyave:

The State Water Contractors ("SWC") on behalf of its member agencies¹, and the Metropolitan Water District of Southern California ("Metropolitan") have reviewed the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement ("Sisk Dam Raise Draft EIR/SEIS") analyzing the potential impact of raising the elevation of B.F. Sisk Dam and enlarging the San Luis Reservoir (herein referred to as "Water Supply Modification Project" or "Project") and submit this comment letter.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies, serving approximately 19 million people in portions of six counties in Southern California.

The DEIR/SEIS was prepared pursuant to the California Environmental Quality Act ("CEQA") and National Environmental Policy Act ("NEPA") by the Bureau of Reclamation (Reclamation) and San Luis & Delta Mendota Water Authority ("SLDMWA") as the respective NEPA and CEQA Lead Agencies. The proposed Project consists of constructing an additional 10-feet of crest height to the B.F. Sisk Dam, San Luis Reservoir beyond the approved 12-foot crest raise actions of the B.F. Sisk Dam Safety of Dams ("SOD") Modification Project ("SOD Modification Project"). The purpose of the proposed Project is to provide operational flexibility and water supply reliability for South-of-Delta Central Valley Project ("CVP") and State Water Project ("SWP"). However, the Department of Water Resources ("DWR") who operates the State Water Project is not serving as the CEQA lead agency for the Project even though the DWR was the lead agency for the initial Environmental Review for the SOD Modification Project.

DIRECTORS

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President

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Solano County Water
Agency

Matthew Stone

Santa Clarita Valley Water
Agency

General Manager

Jennifer Pierre

G-1

¹ The State Water Contractors submit this letter on its behalf and on behalf of all its member agencies, except Santa Clara Valley Water District.

As described in detail below, SWC and Metropolitan are concerned about the CEQA and NEPA analysis and conclusions contained in Reclamation and SLDMWA's Sisk Dam Raise Draft EIR/SEIS. While we are generally supportive of additional storage, the potential water supply impacts that this Water Supply Modification Project will have on the SWP are a significant concern.

The Draft EIR/SEIS and associated modeling shows that this Project will have a significant impact on the SWP operations, causing up to a 147,000 acre-feet reduction in annual SWP exports and up to a 148,000 acre-feet reduction in Oroville storage. At the same time, the impacts to SWP are likely not fully disclosed because the Draft EIR/SEIS does not consider the SWP's operations under its California Endangered Species Act (CESA) Incidental Take Permit (ITP) in the modeling conducted for the Project. The SWC and Metropolitan request that Reclamation and SLDMWA fully mitigate any impacts to the SWP so that this Water Supply Modification Project will have no redirected negative impacts, the full extent of which needs to be disclosed and analyzed in the Sisk Dam Raise Draft EIR/SEIS.

G-1

I. A Subsequent EIR Hides Impacts

Even though the Notice of Availability identified the Water Supply Modification Project as a subsequent EIR in the text of the notice, the Draft EIR is not titled as a subsequent EIR. SLDMWA's failure to title the Draft EIR/SEIS as a subsequent EIR is misleading. Informed decision making and public participation are fundamental purposes of the CEQA process. (*Union of Med. Marijuana Patients, Inc. v. City of San Diego* (2019) 7 Cal.5th 1171, 1184; *Friends of the Eel River v. North Coast R.R. Auth.* (2017) 3 Cal.5th 677, 711.) The title of the Draft EIR/SEIS tells the public that the SLDMWA is analyzing a new project from scratch when in reality, SLDMWA is attempting to utilize CEQA's subsequent review procedures applicable to projects that have already received environmental review. This is confusing, inaccurate, and in violation of CEQA's informational purpose. Furthermore, the Draft EIR/SEIR is devoid of any discussion explaining why a subsequent EIR is appropriate. Here the SOD Modification Project is solely for the purpose of seismic reinforcement and does not create water supply benefits, but the Water Supply Modification Project discussed in this Draft EIR/SEIS is for water supply purposes. These two projects happen to involve the same location (the B. F. Sisk Dam), but they are fundamentally different in their purposes, benefits, and as to most potential impacts.

Based on our review of the Draft EIR/SEIS, it is not clear whether SLDMWA has principal responsibility for carrying out the Project. For example, it is unclear whether SLDMWA has the authority to proceed with dam modifications, to approve actions that will increase water volume in the reservoir, or to undertake contractual modifications (if any) that may be needed to address increased reservoir volumes. It is also unclear whether SLDMWA can use the subsequent EIR procedures given that it was not lead agency for the SOD Modification Project, nor does it appear to be identified as a responsible agency in the SOD Modification Project EIR/EIS.

The Draft EIR/SEIS states that "As a connected action this EIR/SEIS uses the baseline evaluation presented in the B.F. Sisk Dam SOD Modification Project EIS/EIR and considers the incremental impacts of action alternatives presented herein." However, by using this incremental baseline, the actual impacts of the Modification Project are not fully disclosed or analyzed.

II. Draft EIR/SEIS indicates potential for significant impacts to SWP water supply.

The Draft EIR/SEIS and the associated modeling indicate potential significant impacts to SWP. The modeling performed for this Project did not consider the 2020 California Endangered Species Act (CESA) Incidental Take Permit (ITP), and therefore, does not accurately represent existing SWP operations. The ITP limits CVP's use of SWP facilities under certain circumstances. It is important to recognize these

G-2

nuances to accurately estimate potential impacts due to the Project. The modeling performed for the Project indicates potential reductions of up to 155,000 acre-feet annual SWP Table A deliveries, up to 50,000 acre-feet of SWP carryover deliveries and up to 137,000 acre-feet of SWP Article 21 deliveries. The modeling also indicates potential impacts to Oroville storage levels. The Project can also potentially cause water quality changes in the Delta resulting in impacts to SWP operations. The Draft EIR/SEIS incorrectly concludes that these impacts are not significant. Neither the project description nor the modeling assumptions included in the Draft EIR/SEIS describe how the expanded storage would be operated in coordination with ongoing SWP and CVP operations, especially under the investor-directed option. Operations of the expanded storage will require revisiting the December 2018 COA amendment between DWR and Reclamation. The Draft EIR/SEIS also does not analyze and disclose potential water supply impacts to SWP during the 8-year construction period. Finally, the Draft EIR/SEIS does not describe how these impacts to SWP will be mitigated.

G-2

III. Potential dam safety impacts are not analyzed and disclosed.

The DEIR/SEIS states that the "environmental consequences of the proposed alternatives were analyzed qualitatively" with respect to geology, seismicity, and soils. The impacts of constructing an additional 10-foot raise requires a quantitative, not qualitative, analysis. The effects of raising the crest of the existing B. F. Sisk Dam by 22 feet (12 feet by the SOD Modification Project and 10 feet by the Water Supply Modification Project) on the structural integrity of the dam and appurtenances requires defensive engineering in order to ensure its continuing security under both the gravity load and the design seismic events. The additional embankment and water loads resulting from the additional ten-foot raise in storage could create significant adverse effects on the seismic performance of the B.F. Sisk Dam SOD Modification Project and requires a new seismic analysis.

G-3

DWR and USBR have performed over a decade of analyses and exploration to design the final Safety of Dams (SOD) modification for the existing dam configuration. The final SOD modification concept, including but not limited to berms, cutoff trench, drains, is designed to stabilize the embankment for the loads and saturation zones of embankment foundation associated with the current dimensions and the current maximum storage elevations. The additional embankment and water loads resulting from the additional 10-foot raise and expanded storage will potentially require the SOD modification design to be reevaluated. A totally new SOD stability analysis and design may be warranted and there is significant risk of considerable added expense and time delay to the ongoing SOD Modification work. Similarly, the added height of the massive concrete outlet towers and access bridge columns would need to be analyzed for the seismic stability.

IV. Constructability issues are not analyzed and disclosed.

Constructability issues such as availability of local borrow materials for the fill associated with the additional 10-foot dam raise have not been evaluated. Where would this borrow material come from? Do these activities create additional noise, traffic, and air quality impacts? These issues should be analyzed in the Draft EIR/S.

G-4

V. Impacts on existing infrastructure are not analyzed and disclosed.

The impacts to existing Gianelli infrastructure, largely pumps and generators, need to be evaluated and disclosed as they would be required to operate under a higher reservoir head under the Water Supply Modification Project. The additional pumping load caused by the reservoir raise could potentially damage the valves and pumps/generators. Furthermore, potential impacts to Gianelli Plant's structural stability because of the expanded embankment should be analyzed, disclosed, and fully mitigated. The Water Supply Modification Project and associated dam raise and expanded storage are expected to increase the operations

G-5

and maintenance costs of existing infrastructure for SWP. Additional energy use, greenhouse gas emissions and costs should be analyzed, disclosed, and mitigated.

G-5

VI. Impacts to SWP during construction of the Project are not analyzed and disclosed.

Adding the considerable construction time for the Water Supply Modification Project's 10-foot raise will add additional inconvenience and result in negative impacts to the normal SWP operations and recreation access. Adding the additional Sisk Dam raise will potentially cause significant delay in the construction time of the SOD Modification Project. These impacts need to be analyzed, disclosed, and fully mitigated.

G-6

VII. Cumulative impacts of various ongoing planned storage projects by Reclamation should be analyzed and disclosed.

Reclamation and CVP contractors are simultaneously pursuing several expanded storage projects including Shasta Enlargement and Los Vaqueros expansion in addition to B.F. Sisk Dam raise. Each project individually and cumulatively will likely impact SWP operations. The Draft EIR/SEIS should analyze and disclose the fullest extent of the cumulative impacts of all the ongoing projects on the SWP.

It is clear based on the project description and the limited analysis presented in the Draft EIR/SEIS, there is the potential for impacts to the SWP during construction and operation of this Project. Therefore, the project description should include this commitment: "The existence and extent of any SWP water supply reduction or other impacts from the B. F. Sisk Dam Raise and Reservoir Expansion Project ("Project") will be assessed prior to construction, during construction and at the time that any new regulatory requirement or permit issued for the Project affects SWP operations. SLDMWA and USBR, shall avoid, mitigate, or offset, through measures agreed to by DWR and SWC, any SWP water supply reduction resulting from the Project operations or construction impacts. Any restrictions imposed on SLDMWA, USBR, or the CVP through permits or other regulatory approvals issued for the Project operations or construction shall not impact SWP water supply. This mitigation measure does not modify or impair the rights and obligations between USBR and DWR agreed to in other independent agreements."

G-7

The SWC and Metropolitan appreciate this opportunity to comment and look forward to working with SLDMWA and Reclamation on this Project. Both the SWC (cchilmakuri@swc.org) and Metropolitan (jsafely@mw2o.com) also request that they be added to the notification and distribution lists for all CEQA notices, public meeting notices, and public meeting/hearing notices relating to the Project under CEQA and California's open meeting laws. Should you have any questions, please contact Chandra Chilmakuri at 916-562-2583.

Sincerely,



Jennifer Pierre
General Manager

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791



September 28, 2020

Comment ID H

Casey Arthur
Bureau of Reclamation
Willows Construction Office
1140 West Wood Street
Willows, California 95988

Via electronic mail

B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact Report/Supplemental Environmental Impact Statement SCH# 2009091004

Dear Mr. Arthur,

The California Department of Water Resources (DWR) has reviewed the San Luis and Delta-Mendota Water Authority (SLDMWA) and the United States Department of the Interior, Bureau of Reclamation's Draft Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS) for the B.F Sisk Dam Raise and Reservoir Expansion Project (Project) dated August 2020 and provides the enclosed comments. DWR appreciates the opportunity to comment on the Draft EIR/SEIS and looks forward to working with SLDMWA and Bureau of Reclamation as the Project moves forward.

H1

If you have any questions, please contact me at Ted.Craddock@water.ca.gov or your staff may contact David Duval, Chief of State Water Project Operations and Maintenance, at David.Duval@water.ca.gov.

John Harbrough for

Ted Craddock
Deputy Director
State Water Project

Enclosure

Enclosure: Department of Water Resources' Comments on the August 2020 Draft Environmental Impact Report/Supplemental Environmental Impact Statement for the B.F Sisk Dam Raise and Reservoir Expansion Project

2.2 Proposed Alternatives

Elements Common to all sub-alternatives.

1. On page 2-7, the Draft EIR/SEIS states the 10-foot raise would start during the final stages of the Safety of Dams (SOD) modification construction. The Project schedules require further analysis to optimize construction timelines to minimize impacts to reservoir operations. It is likely the final stages of construction for the SOD Modification Project will take until 2030 to complete. As a result, the schedule for completion and potential environmental impacts related to the extended timeline for construction (e.g., air quality and greenhouse gas emissions) need to be addressed in the EIR/SEIS. H2
2. On page 2-7, the Draft EIR/SEIS states the fill materials would be sourced from two borrow sites – Basalt Hill and Borrow Area 6. The potential local borrow supply needs to be evaluated further to ensure sufficient materials are available for the Project. The EIR/SEIS should evaluate whether materials (quarried rock and sand) may be available onsite, after the SOD Project is completed. If additional materials cannot be acquired onsite for the Project, then additional analysis of offsite material resources needs to be included in the EIR/SEIS. H3
3. Page 2-8, the Draft EIR/SEIS states postconstruction maintenance activities would not increase the frequency of maintenance workers being on-site compared to existing maintenance activities at BF Sisk Dam. DWR is responsible for the operation and maintenance of BF Sisk Dam. The EIR/SEIS should include the rationale or analysis which provides the factual basis for this statement and further assess impacts on DWR's maintenance activities and staffing during construction and in the long term. H4

4.1 Water Quality and 4.11 Recreation

4. The San Luis Reservoir experiences periodic algae blooms. The EIR/SEIS should evaluate potential for long-term changes to water quality as a result of the reservoir raise and/or any changes to operations of the reservoirs that could induce algae blooms. If the evaluation indicates algae blooms may be induced, potential impacts to recreation should be analyzed. H5

4.2 Surface Water Supply

5. Potential water supply effects were estimated by using the CALSIM II model. The CALSIM II modeling and other analyses show there is the potential for impacts to the State Water Project (SWP). Given the importance of effective coordinated operations of the Central Valley Project (CVP) and SWP, the existence and/or extent of any SWP water supply reduction from the Project will be reassessed prior to construction, during construction, and at the time that any new regulatory requirement or permit issued for the Project affects SWP operations. SLDMWA, through these reassessments and ongoing coordination of operations between Bureau of Reclamation (Reclamation) and DWR, should H6

avoid, mitigate, or offset, through measures agreed to by DWR, any significant SWP water supply reduction resulting from the Project operations or construction impacts. Any adaptive management measures or restrictions imposed on SLDMWA, Reclamation, or the CVP through permits or other regulatory approvals issued for Project operations will be coordinated with DWR consistent with the rights and obligations of and between Reclamation and DWR agreed to in other independent agreements.

H6

The EIR/SEIS should evaluate the potential water supply impacts to the SWP and if recent operational agreements between Reclamation and DWR with resource agencies may need to be re-negotiated to utilize the expanded storage available with the Project. If re-negotiations and new agreements between agencies are warranted, the environmental impact of expanded mitigation or compliance measures for resource agency permits should be addressed.

4.14 Public Utilities and Power

6. On Page 4-46, the Draft EIR/SEIS Section 4.14.5.3 Operation of Alternative 3 states that Alternative 3 would increase demand on existing pumps at Gianelli Plant by approximately 10% in years when the new reservoir space is filled. The existing Gianelli Plant's pumps/generators need to be evaluated to ensure they can operate under a higher reservoir head during generation and/or pumping. If the Gianelli pumps/generators are insufficient, the EIR/SEIS needs to analyze the additional environmental impacts of adding new and/or different pumping/generating facilities to meet operational need.
7. Currently, only three of the eight units can "top off" the filling of the reservoir without potential cavitation. The additional pumping load caused by the reservoir raise could accelerate cavitation damage to both the valves and pumps/generators. Similar to the comment above, if new pumps/generators are required, the EIR/SEIS needs to address if new facilities will be required and/or if those facilities can be accommodated onsite and if there are potential environmental impacts of new facilities.
8. Raising the crest while maintaining a sufficient crest width for maintenance access could require the extension of the downstream face which could encroach on the Gianelli Plant. This resulting configuration and loading condition need to be evaluated. The EIR/SEIS needs to evaluate if the additional dam raise would require physical relocation and/or re-configuration of Gianelli pumping plant that may have potential environmental impacts.

H7

H8

Dam Safety

9. Reclamation is evaluating the Project as a connected action to Reclamation and DWR's B. F. Sisk Dam SOD Modification Project. DWR agrees the proposed Project is an independent action to the SOD Modification Project.
10. The Project's additional expansion of reservoir and water loads resulting from the 10-foot raise in storage may require revisions to the SOD modification design. DWR and Reclamation have performed over a decade of analyses and exploration to design the final SOD modification for the existing dam configuration. The final SOD modification concept (berms, cutoff trench, drains)

H9

H10

is designed to stabilize the embankment for the loads and phreatic surface (saturation zones of embankment/foundation) associated with the current dimensions and maximum storage elevations. A new SOD stability analysis and design may be warranted and will require review by the independent consulting review board and may require additional time to the SOD modification design work. Similarly, the added height of the outlet towers and access bridge towers may require further seismic analysis. The EIR/SEIS should evaluate the new potential impacts on the underlying soils, geology, and hydrology in front of the dam resulting from the proposed Project as a result of expanded project disturbance areas (larger footprint) near the base of the dam.

H10

11. Considering the Project may increase the dam's inundation area, the Public Services, Utilities and Hazards sections of the EIR/SEIS should analyze the potential environmental impacts of a larger inundation area below the dam.

H11

From: [Arthur, Casandra N](#)
To: [Park, Christopher](#)
Cc: [Kashyap, Anusha V.](#)
Subject: Fw: [EXTERNAL] San Luis Dam
Date: Friday, September 18, 2020 9:23:59 AM

Hi Chris,

Email 1 of 3 for comments I have received thus far on Draft SEIS for B.F. Sisk Raise.

Thank you,
Casey

From: Dennis Brazil <dennis9599@att.net>
Sent: Thursday, August 13, 2020 12:51 PM
To: Arthur, Casandra N <carthur@usbr.gov>
Subject: [EXTERNAL] San Luis Dam

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

All,

It is not only common sense to raise the San Luis Dam, during its seismic construction, but also offers huge Benifits to all water users (Ag, Urban, Environment)

San Luis Dam, was built to store water and deliver water to all of its end users.

The cost of raising the dam, is a fraction of the cost to build a new dam.

Please listen to (us) the people of the San Joaquin Valley and the residents of California and users of this water, and raise the dam to increase capacity for water storage.

Dennis Brazil
Former Gustine Mayor

Sent from my iPhone

From: [Arthur, Casandra N](#)
To: [Park, Christopher](#)
Cc: [Kashyap, Anusha V.](#)
Subject: Fw: [EXTERNAL] Raise San Luis Dam
Date: Friday, September 18, 2020 9:24:59 AM

Email 3 of 3 for comments I have received thus far on Draft SEIS for B.F. Sisk Raise.

Thank you,
Casey

From: kolds <kolds29@gmail.com>
Sent: Thursday, August 13, 2020 6:18 PM
To: Arthur, Casandra N <carthur@usbr.gov>
Subject: [EXTERNAL] Raise San Luis Dam

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

I am writing in favor raising San Luis Dam near Los Banos, CA.
This additional storage will be big win for water security in our state. It will insure irrigation water for farms on the west side of the San Joaquin, as well as, provide water for water fowl that come through.
Please consider this proposal.
Thank you,
Kevin Olds
Land owner in Dos Palos, CA

J-1

Sent from my iPhone

From: [Arthur, Casandra N](#)
To: [Park, Christopher](#)
Cc: [Kashyap, Anusha V.](#)
Subject: Fw: [EXTERNAL] B.F. Sisk Dam Raise and Reservoir Expansion Project
Date: Friday, September 18, 2020 9:24:39 AM

Email 2 of 3 for comments I have received thus far on Draft SEIS for B.F. Sisk Raise.

Thank you,
Casey

From: Scott Steward <scottmsteward@yahoo.com>
Sent: Thursday, August 13, 2020 5:44 PM
To: Arthur, Casandra N <carthur@usbr.gov>
Subject: [EXTERNAL] B.F. Sisk Dam Raise and Reservoir Expansion Project

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

California is in critical need of additional water storage and this will help with the growing demands for California's shared water resources.

Raising the B.F. Sisk Dam for water supply during the Safety of Dam modifications is a smart, practical decision.

Scott M Steward
Bookkeeping / Accounting Solutions
Intuit QuickBooks ProAdvisor
Enrolled Agent / Tax Preparation
Ph 949-726-2103
Fax 714-979-1207

K-1

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2295 Gateway Oaks Drive, suite 250
Sacramento, CA 95833
916.567.9900

Comment Log

Project:

B.F. Sisk Dam Raise and Reservoir Expansion Project

Date:

9/3/20

Made by/Received by: Anonymous

Notes: A public meeting for the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft EIR/SEIS was held via Microsoft Teams on 9/3/20. One public comment was received through the Q&A function. The comment and response are presented below.

Comment: If possible, could you address the "Operation of Dam Raise Alternative" section, in specific the "CVP/SWP Split Storage Alternative"? Since this is not a DWR/SWP project, why would this operational alternative be on this EIR?

L-1

Response: Thank you for commenting. Your comment will be addressed in the Final EIR/SEIS.

B.F. Sisk Dam Raise and Reservoir Expansion Project Environmental Impact Report/ Supplemental Environmental Impact Statement

**Appendix B: EIR/SEIS Appendix EIR/SEIS Appendix
Errata Sheets**

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Appendix B EIR/SEIS Appendix Errata Sheets

This appendix contains all text changes to the B.F. Sisk Dam Raise and Reservoir Expansion Project EIR/SEIS appendices. Changes in text are signified by strikeouts where text is removed and by italics where text is added.

B.1 Appendix B

Page B-39

The first heading on page B-39 of the Draft EIR/SEIS is revised as follows:

Coordinated~~perated~~ Operations Agreement

Page B-44

The reference on page B-44 of the Draft EIR/SEIS is revised as follows:

~~Reclamation and DWR. 2014. DRAFT Technical Information for Preparing Water Transfer Proposals. November. Accessed on September 6, 2018. Available at: http://www.water.ca.gov/watertransfers/docs/2015_Water_Transfer_White_Paper.pdf~~

B.2 Appendix C

Page C-2

The first sentence on the third paragraph on page C-2 of the Draft EIR/SEIS is revised as follows:

Table 1 presents the de minimis amounts for *nonattainment areas* (NAA).

Page C-35

The reference page C-35 of the Draft EIR/SEIS is revised as follows:

Central Valley Regional Water Quality Control Board (RWQCB). 1998. Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region (5). (5). *Fifth Edition. Revised May 2018. Fourth Edition. Updated Beneficial Uses April 22, 2010. Revised October 2011.*

B.3 Appendix J2

Page J2-1

The first sentence on the fourth paragraph on page J2-1 of the Draft EIR/SEIS were added:

Operational impacts would be triggered by changes in hydrology ~~associated with changes in operations.~~

Page J2-1

The fifth paragraph on page J2-1 of the Draft EIR/SEIS were added:

The CalSim II model for this project was developed from a baseline model provided by Reclamation to the project team. The model provided is based on Alternative 1 developed by Reclamation for the Reinitiation of Consultation on the Long-Term Operation (ROC on LTO) of the Central Valley Project and State Water Project (Reclamation 2019). The model's input hydrology includes historical hydrology projected to Year 2030 with climate change and with projected 2020 modifications for operations upstream of the rim reservoirs. Land use projections for this model are based on Year 2020 estimates for the Sacramento Valley, and draft Year 2030 estimates for the San Joaquin Valley. The model simulates these conditions using 82 years of hydrology from water year 1922 through 2003. Regulatory requirements imposed under Alternative 1 included all existing regulatory requirements, as well as actions detailed in the 2019 USFWS and the 2019 NOAA Fisheries Biological Opinions (BO) for delta smelt and listed salmonid species, respectively (USFWS 2019; NOAA Fisheries 2019). The baseline model also includes the changes to operating criteria and requirements put in place under the 2018 Coordination Operations Agreement (COA) Addendum.

Page J2-4

The third sentence on the third paragraph on page J2-4 of the Draft EIR/SEIS were added:

Concerns regarding reverse flows in Old and Middle rivers have also focused on planktonic egg and larval stages of striped bass, Sacramento splittail, and on Chinook salmon *juveniles* ~~smolts~~, in addition to delta smelt and longfin smelt.

Page J2-5

The second sentence on the first paragraph on page J2-5 of the Draft EIR/SEIS were added:

The most biologically sensitive period when the potential effects of reverse flows could affect delta smelt, Chinook salmon, and many other species extends from the late winter (*February/March*) through early summer (*June/July*).

Page J2-5

The first sentence on the second paragraph on page J2-5 of the Draft EIR/SEIS were added:

Increased exports could increase the risk of entrainment and ~~salvage loss~~ of resident and migratory fish present in the south Delta, which may include adult and juvenile delta smelt and longfin smelt, juvenile Chinook salmon, steelhead, striped bass, and other species of fish, as well as macroinvertebrates and nutrients.

B.4 Appendix K2

Page 4-1

The reference on page 4-1 of the Draft EIR/SEIS is revised as follows:

~~Beebe, F. L. 1974. *Field Studies of the Falconiformes of British Columbia*. British Columbia Provincial Museum Occasional Paper No. 17. Victoria, British Columbia, Canada. Erlich et al. 1988~~

Page 4-2

The references on page 4-2 of the Draft EIR/SEIS are revised as follows:

~~Craighead, J. J., and F. C. Craighead Jr. 1956. *Hawks, Owls and Wildlife*. Stackpole Books, Harrisburg, Pennsylvania. Erlich et al. 1988~~

Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, P. A. Rabie, and B. R. Euliss. 2002/2003. Effects of Management Practices on Grassland Birds: Burrowing Owl. Northern Prairie Wildlife Research Center, Jamestown, North Dakota. Northern Prairie Wildlife Research Center Online. (Version 12AUG2004).

B.5 Appendix M

Page 2-1

The sixth sentence on the third paragraph on page 2-1 of the Draft EIR/SEIS is revised as follows:

By about 7,000 years ago, the rate of worldwide sea-level rise began to slow dramatically, and relatively slow submersion of more inland portions of the bay and the Sacramento-San Joaquin Delta began (Atwater 1980, 1982; Shelmon and Begg 1975; Stanley and Warne 1994; Wells and Goman 1995).

Page 2-2

The second sentence on the third paragraph on page 2-2 of the Draft EIR/SEIS is revised as follows:

Geological studies in Contra Costa County and the foothills of the western San Joaquin Valley demonstrate that many valleys in the region were partially filled with alluvium by several cycles of deposition in the Holocene that were separated by periods of landscape stability and soil formation (Lettis 1982; Marchand and Allwardt 1981; ~~Pape 1978~~; Rogers 1988).

Page 3-1

The second sentence on the third paragraph on page 3-1 of the Draft EIR/SEIS is revised as follows:

With his control of the Department of Anthropology at the University of California and his belief that the archaeology of the Bay Area could lead to few insights concerning the historical development of Native American culture, Kroeber shifted the resources of the Department away from archaeology and more towards salvage ethnography (~~Gerow with Force 1968: 2~~).

B.F. Sisk Dam Raise and Reservoir Expansion Project
Final Environmental Impact Report/Supplemental Environmental Impact Statement

The third sentence on the fourth paragraph on page 3-1 of the Draft EIR/SEIS is revised as follows:

It was not until the publication of *Lillard and Purves published their 1936 The Archaeology of the Deer Creek-Cosumnes Area (Lillard and Purves 1936)*, however, that Central California had a stratigraphically based cultural sequence equivalent to that of Rogers (1929) and Olson (1930).

The last sentence on the third paragraph on page 3-1 of the Draft EIR/SEIS is revised as follows:

This important publication laid the groundwork for what would become known as the “Central California Taxonomic System,” or the CCTS (~~Gerow with Force 1968: 5~~).

Page 3-2

The second sentence on the second paragraph on page 3-2 of the Draft EIR/SEIS is revised as follows:

In general terms, the CCTS was a cultural sequence divided into three successive cultural periods: the Early, Middle (also called Transitional), and Late Horizons (Heizer and Fenenga 1939; ~~Lillard and Purves 1936; Lillard et al. 1939~~).

The first sentence on the third paragraph on page 3-2 of the Draft EIR/SEIS is revised as follows:

One of the primary goals of this new paradigm in Central California archaeology was to integrate the culture history of the Central Valley and Bay Area (Beardsley 1948, 1954; Heizer and Fenenga 1939: 396; ~~Lillard et al. 1939: 64~~).

The fourth sentence on the third paragraph on page 3-2 of the Draft EIR/SEIS is revised as follows:

The CCTS could not account for these new discoveries without significant revision (~~Gerow with Force 1968: 5~~), as the system was based on the belief that “the Bay constituted a local marginal and culturally backward area into which outside influences either failed to spread or spread slowly or halfheartedly” (Heizer 1949: 39).

The fourth paragraph on page 3-2 of the Draft EIR/SEIS is revised as follows:

Being based on the diffusionist notion of “climax” areas or regions (Kroeber 1920, 1939), the CCTS considered the Central Valley as the area in which dominant cultural trends developed and later spread into surrounding areas. In contrast, Gerow ~~with and Force (1968)~~ proposed that several different early cultures existed in Central California and that these cultures later converged to create the cultures of the Middle Horizon (*Gerow 1974*). Even though this proposition demanded a thorough revision of the CCTS, ~~Gerow with Force (1968)~~ *they* did not offer an alternative to the existing system. Instead, ~~the authors~~ *they* worked within the confines of the CCTS to integrate the new data within the old system (*Gerow 1974*), though other archaeologists were also growing dissatisfied with the status quo (Bennyhoff and Fredrickson 1994; Fredrickson 1973, 1994a).

Page 3-3

The third sentence on the second paragraph on page 3-3 of the Draft EIR/SEIS is revised as follows:

Most of the non-obsidian rock sources (e.g., quartz crystals, calcite, alabaster, and schist) for Windmill Pattern artifacts are from Sierra Nevada sources (Moratto 1984), whereas much of the obsidian used for chipped stone artifacts is from the western Great Basin and North Coast Ranges. ~~(Jackson 1974).~~

Page 3-5

The last sentence on the second paragraph on page 3-5 of the Draft EIR/SEIS is revised as follows:

The Kahwathwah Yokut tribe lived in the San Luis Reservoir area (Latta 1947~~79~~).

Page 3-6

The third sentence on the first paragraph on page 3-6 of the Draft EIR/SEIS is revised as follows:

Sweathouses and larger ceremonial chambers have been documented ethnographically (Gayton~~1936~~, 1948).

The first sentence on the second paragraph on page 3-6 of the Draft EIR/SEIS is revised as follows:

Trade occurred north and south along the San Joaquin River. Tule rafts were used for transportation as well as trade (~~Gayton-Wallace 1936~~78).

The third sentence on the fourth paragraph on page 3-6 of the Draft EIR/SEIS is revised as follows:

Overviews are provided in ~~Heizer (1974)~~, Levy (1978a), Margolin (1978), and Milliken (1983, 1991, 1995), among other texts. ~~Galvan-Bean (1969)~~48) and Williams (1890) offer Native accounts of Ohlone history, and an excellent example of contemporary ethnohistory can be found in Cambra et al. (1996).

The third sentence on the fifth paragraph on page 3-6 of the Draft EIR/SEIS is revised as follows:

Studies by C.D. King and others suggest that over time several of these tribelets amalgamated into larger tribal units (~~Breschini et al. 1983~~).

Page 3-7

The second paragraph on page 3-7 of the Draft EIR/SEIS is revised as follows:

The nature of political authority among Central California tribes has been differentially characterized by early explorers and missionaries as both egalitarian and hierarchical. ~~Records from Mission San Juan Bautista for example attempted to fit local Native Americans into a Spanish system, and described tribal leadership by capitanes, or male village leaders. Paradoxically, Father Arroyo de la Cuesta, also of Mission San Juan Bautista, described in his correspondence with Spanish officials a primarily egalitarian, leaderless society in which social control was embedded within the dynamics of deep-seated inter-~~

B.F. Sisk Dam Raise and Reservoir Expansion Project
Final Environmental Impact Report/Supplemental Environmental Impact Statement

~~family feuds. It is evident from Arroyo de la Cuesta's observations that he did not view these divisions in Native leadership as comparable with the hierarchical ranks of bureaucratic Spanish society. He did note, however, that though the "pagan state" lacked distinguished capitanes, distinct male leadership roles did arise in battles, banquets, and ceremonies (Arroyo de la Cuesta in Geiger and Meighan 1976). Levy (1977: 487) noted that tribelet chiefs might be either men or women, with succession passing patrilineally from father to son or to sister or daughter. He observed that accession to the office of chief required the approval of the community, and that the chief was responsible for providing for visitors, directing ceremonial activities, and directing hunting, fishing, and warfare expeditions. Despite their responsibilities, the "chief and council served mainly as advisors to the community. Costanoan ideas of personal freedom precluded the existence of any type of institutionalized coercive power. Obedience to a higher authority was rendered only in time of war" (Levy 1978: 487).~~

The second sentence on the last paragraph on page 3-7 of the Draft EIR/SEIS is revised as follows:

The single most important food item among the Ohlone was the acorn, at least four species of which were collected and processed into meal or flour (Breschini et al. 1983; Levy 1978:491).

Page 3-8

The first and second sentences on the fourth paragraph on page 3-8 of the Draft EIR/SEIS are revised as follows:

An abundance of information exists on the material culture of the Ohlone. Mission-era accounts of clothing worn by ~~Rumsen~~ the Ohlone neophytes at the Carmel Mission note that women often wore "a short apron of red and white cords braided tule or grass in the front and buckskin in the back twisted and worked as closely as possible, which extends to the knee" (Breschini et al. 1983; Levy 1977: 299-493). ~~According to these accounts, men~~ Men typically went naked, ~~though both men and women often wore cloaks fastened under the chin in cold weather except for the few who covered themselves with a small cloak of rabbit skin above the waist.~~

The sixth and seventh sentences on the fifth paragraph on page 3-8 of the Draft EIR/SEIS are revised as follows:

Intermarriage usually occurred between adjacent groups and was rare between those at greater distances (Milliken et al. 1993). Both marital and trade issues were affected by and effected warfare between the tribes (Amoros in Heizer 1974; Levy 1974), which has been described as common at the time of Spanish contact (Fages 1937).

Page 3-9

The last sentence on the fourth paragraph on page 3-9 of the Draft EIR/SEIS is revised as follows:

An adobe, which may have dated to as early as 1810, stood at the *vaquero* camp location until it was demolished in 1900 (Latta 1936; 1977: 14-15; Snoke 2010).

Page 3-12

The second sentence on the first paragraph on page 3-12 of the Draft EIR/SEIS is revised as follows:

When Lux died in 1887, Miller bought out Lux's heirs and continued to expand the empire, which lasted through the 1920s before financial debts curtailed the company's growth (Teller 2004: 180; Pierce 1977: 183).

Page 4-1

The last bullet on page 4-1 of the Draft EIR/SEIS is revised as follows:

- California Points of Historical Interest (*California Office of Historic Preservation Department of Parks and Recreation* 1992).

Page 4-2

The first three bullets on page 4-2 of the Draft EIR/SEIS are revised as follows:

- Caltrans *Structure Maintenance & Investigations: Historical Significance – Local Agency Bridges State and Local Bridge Survey* (*California Department of Parks and Recreation-Caltrans* 20149);
- Caltrans Statewide Historic Bridge Inventory *Update* (*California Department of Transportation Caltrans* 20135), which includes listings of bridges previously evaluated for listing in the NRHP and determined eligible for listing be not re-evaluated, bridges that remain unevaluated, and local agency bridges;
- Historic Highway Bridges of California (*California Department of Transportation-Caltrans* 1990);

The last bullet on page 4-2 of the Draft EIR/SEIS is revised as follows:

- Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys (*Department of Parks and Recreation-California OHP* 1989).

Page 7-19

The second sentence on the first paragraph on page 7-19 of the Draft EIR/SEIS is revised as follows:

It represents a part of the larger Basalt Hill Quarry (CA-MER-509H) and separation plant complex built in 1963 to process basalt into riprap for construction of the B.F. Sisk Dam (Autabee 2011: 11-12; Berman 2012: pers. comm.; *Reclamation* 1974: 49).

Page 7-20

The first sentence on the second paragraph on page 7-20 of the Draft EIR/SEIS is revised as follows:

Historic period map evidence supports other accounts that the Basalt Hill Quarry (CA-MER-509H) and separation plant complex were established in 1963 to support construction of the B.F. Sisk Dam and San Luis Reservoir, which were completed in 1967 (Autabee 2011: 11-12; *Reclamation* 1974: 49).

Page 7-30

The first sentence on the last paragraph on page 7-30 of the Draft EIR/SEIS is revised as follows:

CA-MER-509H, or the Basalt Hill Quarry, is a historic period industrial resource that spans 4,000 feet NW/SE by 5,000 feet NE/SW. It represents the main element of a quarry and separation plant complex built in 1963 to process basalt into riprap for construction of the B.F. Sisk Dam (Autabee 2011: 11-12; Berman 2012: pers. comm.; ~~Reclamation 1974: 49~~).

Page 7-32

The last sentence on the last paragraph on page 7-32 of the Draft EIR/SEIS is revised as follows:

This supports historic period accounts that the Basalt Hill Quarry and separation plant complex were established in 1963 to support construction of the B.F. Sisk Dam and San Luis Reservoir, which were completed in 1967 (Autabee 2011: 11-12; ~~Reclamation 1974: 49~~).

Page 7-34

The fifth sentence on the third paragraph on page 7-34 of the Draft EIR/SEIS is revised as follows:

This subsystem was noted in the *Minerals Yearbook, 1963* and *Engineering News Record* along with a general description of the overall system processes (Cotter 1963:1068; ~~Engineering News Record 1963:46~~).

Page 8-1

The references on page 8-1 of the Draft EIR/SEIS are revised as follows:

Atwater, Brian F.

~~1980 — Attempts to Correlate Late Quaternary Climatic Records Between San Francisco Bay, the Sacramento-San Joaquin Delta and the Mokelumne River, California. Unpublished Ph.D. dissertation, University of Delaware.~~

~~2011 — San Luis Unit, West San Joaquin Division Central Valley Project. Bureau of Reclamation. Accessed March 2013. Available at Available at <https://usbr.gov/projects/pdf.php?id=109>. http://www.usbr.gov/projects/ImageServer?imgName=Doe_1303396586494.pdf.~~

Page 8-2

The reference on page 8-2 of the Draft EIR/SEIS is revised as follows:

Bean, Lowell John

1994 *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region. Compiled and Edited by Lowell John Bean. Ballena Press, Novato, California.*

Page 8-3

The references on page 8-3 of the Draft EIR/SEIS are revised as follows:

Breschini, G. S., T. Haversat, and R. P. Hampson

~~1983—A Cultural Resources Overview of the Coast and Coast Valley Study Areas. Submitted to the Bureau of Land Management.~~

CAhighways.org

~~20240 California Highways, SR 152. Accessed February 2010. Available at <http://www.cahighways.org/ROUTE145-152.html#152.html>.~~

~~1989—Survey of Surveys. A Summary of California's Historical and Architectural Resource Surveys. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~

~~1992—California Points of Historical Interest. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~

Page 8-4

The references on page 8-4 of the Draft EIR/SEIS are revised as follows:

~~20122011—Caltrans State and Local Bridge Survey. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~

~~2014 Historic Property Data File for Merced and Santa Clara Counties. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California. 1990.—NRHP Directory of Determination of Eligibility, Vol. I and II. State of California, Sacramento. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~

~~1994—List of Historic Survey Reports (Bibliography). On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State~~

~~University, Stanislaus, Department of Anthropology, Turlock, California.~~

- 1995 Instructions for Recording Historical Resources. On file at the ~~Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the~~ Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.
- 1989 *Survey of Surveys. A Summary of California's Historical and Architectural Resource Surveys. On file at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 1990 *NRHP Directory of Determinations of Eligibility, Volumes I and II. On file at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 1992 *California Points of Historical Interest. On file at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 1994 *List of Historic Survey Reports (Bibliography). On file at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 1996 *California Historical Landmarks. On file at the ~~Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the~~ Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 2009 *Historic American Landscapes Survey (HALS) Inventory – Northern California. On file at the California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 2013a *Linear Resource Concordance List for Canals, Ditches, Levees, Railroads, Roads, Trails, and Transmission Lines. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*
- 2013b *List of Railroads by County. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*

- ~~2009~~ ~~Historic American Landscapes Survey (HALS) Inventory – Northern California. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~
- ~~2013a~~ ~~Linear Resource Concordance List for Canals, Ditches, Levees, Railroads, Roads, Trails, and Transmission Lines. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~
- ~~2013b~~ ~~List of Railroads by County. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~

Page 8-5

The references on page 8-5 of the Draft EIR/SEIS are revised as follows:

- ~~2011~~ ~~Caltrans State and Local Bridge Survey. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.~~
- 20135 Caltrans Statewide Historic Bridge Survey *Inventory Update*. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.
- ~~20194~~ ~~Caltrans State and Local Bridge Survey~~ *Structure Maintenance & Investigations: Historical Significance – Local Agency Bridges. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California, and at the Central California Information Center, California State University, Stanislaus, Department of Anthropology, Turlock, California.*

Page 8-7

The reference on page 8-7 of the Draft EIR/SEIS is revised as follows:

Engineering News Record

~~1963—Conveyor Hauls Rock, Generates Power. Aug. 29, 1963 *Engineering News Record* 171(9):46.~~

Page 8-9

The references on page 8-9 of the Draft EIR/SEIS are revised as follows:

Galvan, P. M.

~~1968—People of the West: The Ohlone Story. *The Indian Historian* 1(2):9-13.~~

Gayton, A. H.

~~1936—Estudillo Among the Yokuts: 1819. In *Essays in Anthropology*, pp. 67-85. University of California Press, Berkeley, California.~~

Geiger, M., and C. W. Meighan

~~1976—*As the Padres Saw Them: California Indian Life and Customs as Reported by the Franciscan Missionaries, 1813-1815*. Santa Barbara Mission Archive Library, Santa Barbara, California.~~

Gerow, B.A. with R. Force

~~1968/74—*An Analysis of the University Village Complex Co-Traditions and Convergent Trends in Prehistoric California. San Luis Obispo county Archaeological Society No. 8. with a Reappraisal of Central California Archaeology*. Sanford University Press, Stanford, California.~~

Page 8-12

The references on page 8-12 of the Draft EIR/SEIS are revised as follows:

~~1974—*The Costanoan Indians*. Local History Studies 18, California History Center, De Anza College, Cupertino, California.~~

Horton, J.D., San Juan, C.A., and Stoesser, D.B,

2017 The State Geologic Map Compilation (SGMC) geodatabase of the conterminous United States (ver. 1.1, August 2017): U.S. Geological Survey Data Series 1052, 46 p.,
<https://www.sciencebase.gov/catalog/item/5888bf4fe4b05ccb964bab9d> <https://doi.org/10.3133/ds1052>.

Page 8-13

The references on page 8-13 of the Draft EIR/SEIS are revised as follows:

Igler, D.

~~2001—*Industrial Cowboys: Miller & Lux and the Transformation of the Far West, 1850-1920*. University of California Press, Berkeley and Los Angeles.~~

Jackson, R.

~~1974—Site record for CA SCL 186 (P 43-000197). On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.~~

Page 8-14

The references on page 8-14 of the Draft EIR/SEIS are revised as follows:

Latta, F. F.

~~1936—*El Camino Viejo á Los Angeles*. Kern County Historical Society, Bakersfield, California.~~

~~197749—*Handbook of the Yokuts Indians. Second First edition.-Bear State Books. Reprinted 1999, Coyote Press, Salinas, California. Kern County Museum, Bakersfield.*~~

Page 8-15

The references on page 8-15 of the Draft EIR/SEIS are revised as follows:

Lillard, J. B., R. F. Heizer, and F. Fenenga

~~1939—*An Introduction to the Archaeology of Central California*. Sacramento Junior College Department of Anthropology Bulletin 2. Sacramento, California.~~

Lillard, J. B., and W. K. Purves

~~1936—*The Archaeology of the Deer Creek Cosumnes Area, Sacramento County, California*. Sacramento Junior College Department of Anthropology Bulletin 1. Sacramento, California.~~

Page 8-17

The reference on page 8-17 of the Draft EIR/SEIS is revised as follows:

Milliken, R. T., J. G. Costello, C. Johnson, G. A. Laffrey, A. Sayers, and P. Orozco

~~1993—*Archaeological Test Excavations at Fourteen Sites along Highways 101 and 152, Santa Clara and San Benito Counties, California, Volume 2: History, Ethnohistory, and Historic Archaeology*. Report on file at the Northwest Information Center, Rohnert Park, California.~~

Page 8-23

The reference on page 8-23 of the Draft EIR/SEIS is revised as follows:

~~Pape, Donald Alan~~

~~1978 — *Terraced Alluvial Fills in Contra Costa County, California*. Master's thesis, University of California, Berkeley, California.~~

Page 8-26

The reference on page 8-26 of the Draft EIR/SEIS is revised as follows:

~~Shelmon, Roy and E. L. Begg~~

~~1975 — Late Quaternary Evolution of the Sacramento-San Joaquin Delta, California. In *Quaternary Studies*, edited by R. P. Suggate and M. M. Cresswell, pp. 259-265. The Royal Society of New Zealand Bulletin 13.~~

Page 8-26

The reference on page 8-26 of the Draft EIR/SEIS is revised as follows:

Snoke, P. C.

2010 *Gustine, Gem of the Valley: A Complete History of the Gustine area* California. Gustine Historical Society website. Accessed January 2010. Available at <https://gustinehistoricalsociety.org/wp-content/uploads/2016/10/gustine-history.pdf>
~~www.gustinehistoricalsociety.org/gustinehistory.html.~~

Page 8-27

The reference on page 8-27 of the Draft EIR/SEIS is revised as follows:

~~Tinkham, G. H.~~

~~1923 — *History of San Joaquin County, California with Biographical Sketches*. Historical Record Company, Los Angeles, California.~~

Page 8-29

The references on page 8-29 of the Draft EIR/SEIS are revised as follows:

United States Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS)

2007 *Soil Survey Geographic (SSURGO) database for Merced County, California, Western Part*. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, Texas. Accessed in 2016. Available at <https://websoilsurvey.nrcs.usda.gov/app/http://soildatamart.nrcs.usda.gov/>.

2010a *Soil Survey Geographic (SSURGO) database for Eastern Santa Clara Area, California*. U.S. Department of Agriculture, Natural Resources

Conservation Service, Fort Worth, Texas. Accessed in 2016. Available at
~~<https://websoilsurvey.nrcs.usda.gov/app/>~~~~<http://soildatamart.nrcs.usda.gov/>~~.

2010b *Soil Survey Geographic (SSURGO) database for Eastern Santa Clara Area, California*. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, Texas. Accessed in 2016. Available at
~~<https://websoilsurvey.nrcs.usda.gov/app/>~~~~<http://soildatamart.nrcs.usda.gov/>~~.

Page 8-30

The references on page 8-30 of the Draft EIR/SEIS are revised as follows:

**United States Department of the Interior, Bureau of Reclamation
(Reclamation)**

~~1974 *San Luis Unit Technical Record of Design and Construction, Vol. I: History, General Description, and Geology*. US Department of Interior, Denver, Colorado.~~

**United States Department of the Interior, Bureau of Reclamation
(Reclamation) and San Luis and Delta-Mendota Water Authority
(Authority)**

2019 Revised Environmental Impact Report (EIR)/Supplemental Environmental Impact Statement (EIS) for the Long-Term Water Transfers Program. Available at
https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=21161.

**United States Department of the Interior, Bureau of Reclamation
(Reclamation) and State of California Department of Water
Resources (DWR)**

2019 B.F. Sisk Dam Safety of Dams Modification Project Final Environmental Impact Statement/ Environmental Impact Report. Available at
https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=39981.

Page 8-34

The reference on page 8-34 of the Draft EIR/SEIS is revised as follows:

Whitten, D.

2016a Hemingray Glass Company. Accessed August 2016. Available at
~~<https://www.glassbottlemarks.com/hemingray/>~~~~<http://www.glassbottlemarks.com/hemingray/>~~.

Page 8-35

The references on page 8-35 of the Draft EIR/SEIS are revised as follows:

2004a Archaeological Survey Report ADA Retrofit Basalt CG and DUA, San Luis Reservoir State Recreation Area. Produced by the California Department of Parks and Recreation. Study ME-005590 on file at the Central California Information Center, California State University Stanislaus Department of Anthropology, Turlock, California.

2004b *Site record for CA-MER-433 (P-24-001806). Produced by the California Department of Parks and Recreation. On file at the Central California Information Center, California State University Stanislaus Department of Anthropology, Turlock, California.*

B.6 Appendix P

Page P-10

The second reference in the Executive Summary section on page P-10 of the Draft EIR/SEIS is revised as follows:

———. 2019. *B.F. Sisk Safety of Dams Modification Project Final Environmental Impact Statement/ Environmental Impact Report*. August 2019. Accessed on 05-08-2020. Available at: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281

The following reference has been added to the Executive Summary section on page P-10 of the Draft EIR/SEIS:

Reclamation and DWR. 2019. *B.F. Sisk Safety of Dams Modification Project Final Environmental Impact Statement/ Environmental Impact Report*. August 2019. Accessed on 05-08-2020. Available at: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281

The first reference in the Chapter 2 section on page P-10 of the Draft EIR/SEIS is revised as follows:

Bureau of Reclamation (Reclamation). 2019. *B.F. Sisk Safety of Dams Modification Project Record of Decision*. November 2019. Available at: https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=41521

———. 2020. *Record of Decision, Reinitiation of Consultation on the Coordinated Long-Term Operation of the Central Valley Project and State Water Project*. February 18, 2020. Available at: https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=42324

The following reference has been added to the Chapter 2 section on page P-10 of the Draft EIR/SEIS:

Reclamation and California Department of Water Resources (DWR). 2019. B.F. Sisk Safety of Dams Modification Project Record of Decision. November 2019. Available at: https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=41521

The second reference in the Chapter 3 section on page P-10 of the Draft EIR/SEIS is revised as follows:

~~Bureau of Reclamation (Reclamation). 2010. San Joaquin Kit Fox Early Evaluation Report. B.F. Sisk Dam, Central Valley Project, California. March.~~

Page P-13

The references on page P-13 of the Draft EIR/SEIS are revised as follows.

U.S. Department of the Interior, Bureau of Reclamation (Reclamation). ~~Bureau of Reclamation (Reclamation). 2010. San Joaquin Kit Fox Early Evaluation Report. B.F. Sisk Dam, Central Valley Project, California. March.~~

~~—. 2018. Delineation of Waters of the United States. B.F. Sisk Dam Safety of Dams Modification Project Aquatic Resources Delineation, California. Draft.~~

Page P-14

The following reference has been added to the Chapter 3 section on page P-14 of the Draft EIR/SEIS:

United States Department of the Interior, Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR). 2019. B.F. Sisk Safety of Dams Modification Project Final Environmental Impact Statement/ Environmental Impact Report. August 2019. Accessed on 05 08 2020. Available at: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281

The following reference in the Chapter 3 section on page P-14 of the Draft EIR/SEIS is revised as follows:

U.S. Fish and Wildlife Service (USFWS). 2020. *List of Threatened and Endangered Species that May Occur in your Proposed Project Location, and/or May be Affected by the San Luis Low Point Improvement Project*. U.S. Department of Interior Fish and Wildlife Service. Sacramento Fish and Wildlife Office. Consultation code: 08ESMF00-2020-SLI-1123; <https://ecos.fws.gov/ipac/> Accessed on: February 24, 2020. ~~List of Threatened and Endangered Species that May Occur in your Proposed Project Location, and/or May be Affected by the San Luis Low Point Improvement Project. U.S. Department of Interior Fish and Wildlife Service. Sacramento Fish and Wildlife Office. <https://ecos.fws.gov/ipac/> Accessed on: 10-04-2018.~~

Page P-15

The references on page P-15 of the Draft EIR/SEIS are revised as follows.

B.F. Sisk Dam Raise and Reservoir Expansion Project
Final Environmental Impact Report/Supplemental Environmental Impact Statement

U.S. Bureau of Reclamation (Reclamation) *and California Department of Water Resources (DWR)*. 2019. B.F. Sisk Dam Safety of Dams Modification Project Final Environmental Impact Statement/Environmental Impact Report. U.S. Department of the Interior, Bureau of Reclamation and the California Department of Water Resources. August 2019. Available at:
https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281.

Page P-17

The references on page P-17 of the Draft EIR/SEIS are revised as follows.

U.S. Bureau of Reclamation (Reclamation) *and California Department of Water Resources (DWR)*. 2019. B.F. Sisk Dam Safety of Dams Modification Project Final Environmental Impact Statement/Environmental Impact Report. U.S. Department of the Interior, Bureau of Reclamation and the California Department of Water Resources. August 2019. Available at:
https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281.

B.F. Sisk Dam Raise and Reservoir Expansion Project Environmental Impact Report/ Supplemental Environmental Impact Statement

Appendix C: Mitigation Monitoring and Reporting Plan

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Appendix C Mitigation Monitoring and Reporting Program

C.1 Introduction

The proposed B.F. Sisk Dam Raise and Reservoir Expansion (Project) would result in the potential for significant environmental impacts associated with water supply, air quality, noise, traffic, recreation, and cultural resources. Mitigation measures have been incorporated into the Project to reduce impacts. The mitigation measures for the Project must be adopted by Reclamation and the San Luis & Delta-Mendota Water Authority (SLDMWA), in conjunction with adoption of the Environmental Impact Report/ Supplemental Environmental Impact Statement (EIR/SEIS). As a connected action to the B.F. Sisk Dam Safety of Dams (SOD) Modification Project, there are several mitigation measures and environmental commitments included under Proposed Action that have been adopted by DWR and Reclamation as part of the approved B.F. Sisk Dam Safety of Dams (SOD) Modification Project. Approved mitigation measures and environmental commitments incorporated under the B.F. Sisk SOD Modification Project are presented in Chapter 5 of the B.F. Sisk SOD Modification Project Final Environmental Impact Statement (EIS)/EIR¹.

Section 21081.6 of the Public Resources Code (PRC) and California Environmental Quality Act (CEQA) Guidelines section 15097 require the Lead Agency for each project that is subject to CEQA to monitor performance of the mitigation measures included in any environmental document to ensure that implementation does, in fact, take place. The PRC requires the Lead Agency to adopt a monitoring and reporting program for assessing and ensuring the implementation of required mitigation measures.

In accordance with PRC Section 21081.6, SLDMWA has developed this Mitigation Monitoring and Reporting Program (MMRP) for the Project. The purpose of the MMRP is to ensure activities associated with transferring water comply with all applicable environmental mitigation requirements.

C.2 Mitigation and Monitoring

Table C-1 lists the mitigation measures identified in the EIR/SEIS, responsible parties, method for verification, and the time frame for implementation. SLDMWA, as the CEQA lead agency, is the ultimate agency responsible to make sure that mitigation measures are implemented. Other parties, including the Bureau of Reclamation and (Reclamation), as the NEPA lead agency will have a role in implementation.

¹ The [B.F. Sisk Dam SOD Modification Project Final EIS/EIR](https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281) is available for review at the following hyperlink: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=34281

Table M-1. Mitigation Measures

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
AQ-1	<p>Construction contractors will reduce impacts on air quality from construction activities by using construction equipment compliant with the Tier 4 emission standards for off-road diesel engines instead of the fleet average for the San Joaquin Valley Air Board (SJVAB). Records will be maintained by the construction contractor to demonstrate that actual emissions would not exceed San Joaquin Valley Air Pollution Control District (SJVAPCD) significance criteria and will be submitted monthly to SLDMWA.</p> <p>If nitrogen oxide (NOx) emissions are forecasted to exceed thresholds based on the monthly recordkeeping logs, then changes will be made so that the threshold is not exceeded. Possible changes that could be made to reduce emissions include changing the project phasing so there are fewer simultaneous operations, reducing the daily number of hours worked per piece of equipment, or using alternative-fueled equipment when feasible.</p>	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
AQ-2	Construction contractors will ensure all haul trucks, vendor trucks, or other vehicles operating on-site with on-road engines meet model year 2015 or better emission standards.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
AQ-3	Construction contractors will install diesel oxidation catalysts on all off-road construction equipment capable of achieving an 80% reduction in NOx.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
AQ-4	Construction contractors will be required to pave all unpaved haul and access roads to and from borrow and disposal areas (i.e., Basalt Hill and Borrow Area 6) to reduce fugitive PM ₁₀ and PM _{2.5} emissions.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
AQ-5	<p>Construction contractors will be required to incorporate the following administrative control measures to minimize air pollutant and greenhouse gas (GHG) emissions:</p> <ul style="list-style-type: none"> • Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes cumulative impacts from other planned projects in the region, if feasible. • Locate diesel engines, motors, and equipment staging areas as far as possible from residential areas and other sensitive receptors (e.g., schools, daycare centers, hospitals, senior centers, etc.). • Avoid routing truck traffic near sensitive land uses to the fullest extent feasible. • Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production. • Recycle construction debris to the maximum extent feasible. • Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking.² • Reduce construction-related trips of workers and equipment, including trucks. • Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow. 	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction

² Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.

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Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	<ul style="list-style-type: none"> Identify all commitments to reduce construction emissions and quantify air quality improvements that would result from adopting specific air quality measures. Identify where implementation of mitigation measures is rejected based on economic infeasibility. 			
GHG-1	Construction contractors will use engine electrification (including hybrid equipment) and use renewable diesel or biodiesel, when feasible, for all on- and off-road construction equipment.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
GHG-2	Construction contractors will purchase carbon offsets before construction activities commence in an amount sufficient to reduce GHG emissions remaining after implementation of Mitigation Measures AQ-1 through AQ-2 and GHG-1 to less-than-significant levels. Only emission offsets consistent with standards used for CARB Compliance Offset Protocols will be used to reduce GHG emissions. These standards ensure that offsets are real, permanent, quantifiable, verifiable, enforceable, and additional (Health and Safety Code Section 38562(d)). Registries selling approved offsets meeting these standards include the American Carbon Registry, Climate Action Reserve, and Verra (formally the Verified Carbon Standard).	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
VIS-1	To reduce visual intrusion from light sources, the construction contractor will implement measures at the State Route (SR) 152 construction area to reduce light and glare while meeting minimum safety and security standards. Light reduction measures must include directing lighting downward to prevent spillover onto nearby areas, using lighting fixtures with directional shielding to focus on areas being lit, and implementing a construction requirement that all lighting in areas not under active construction be shut off. To reduce the amount of glare, building finishes will be subdued and earth-toned. On-site mechanical equipment roofing materials and any exposed vents or flashings must be constructed of nonglare finishes that minimize reflectivity.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction

Appendix C
Mitigation Monitoring and Reporting Program

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
VIS-2	The construction contractor will implement the following measures in the SR 152 construction area: road improvements that comply with planning and design standards for development of official scenic highways, including (1) detailed land and site planning; (2) careful attention to and control of earthmoving and landscaping; and (3) the design and appearance of structures and equipment (California Department of Transportation [Caltrans] 2011).	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
TR-1	<p>The following construction management actions will be documented in a temporary traffic control plan developed by the design contractor as a requirement that will be included in its construction contract. The temporary traffic control plan will be submitted for Caltrans review and approval during the Encroachment Permit process.</p> <p>Construction contractors will install signage at intersections identified as dangerous per the <i>California Manual on Uniform Traffic Control Devices</i> (Caltrans 2014) guidelines warning motorists of slow-moving construction traffic and lane closures. Roadways with signage would include SR 152, Basalt Road, and Romero Visitor Center access road under Alternative 3. SR 152 construction work is scheduled to last for 2 years and would require lane closures. Signage will be posted at these locations 1 month in advance to allow motorists time to plan for delays or alternate routes. A public outreach/communication plan will be developed and implemented prior to start of construction actions.</p> <p>Construction contractors will implement dust abatement and perform proper construction traffic management actions, including signage warning motorists of construction activity and traffic controls like flaggers or temporary traffic signals where construction equipment will be entering roadways. This will reduce conflicts during periods of high-traffic volume in and around each construction site. The measure will mitigate conflicts with emergency responders entering and existing the area during an emergency.</p>	SLDMWA and Reclamation	Final Design and Construction contract requirement	Prior to and during construction

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Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	In addition to the temporary traffic control plan, prior to any construction actions, construction contractors will develop and adhere to a health and safety plan (HASP) outlining all applicable Occupational Safety and Health Administration (OSHA) requirements and including important traffic safety plans and identification of emergency access routes in and through construction areas that would need to be kept clear at all times during construction. The HASP will include coordination with emergency service personnel to ensure adequate mitigation for all impacts.			
HAZ-1	Requirements will be added to the construction contracts requiring the use of spark arrestors on all construction equipment. The contract will include requirements for the construction contractor to educate all construction workers about the risk of starting a wildfire and how to avoid it and who to contact if a wildfire is started. In addition, restrictions will be placed on smoking and campfires for any personnel using Basalt Campground.	SLDMWA and Reclamation	Documentation on file with SLDMWA	Prior to and during construction
TERR-1	Special Status Plant Species and Special Status Natural Communities. Surveys of the study area for special status plant species will be conducted by Reclamation and SLDMWA during the identifiable blooming period prior to commencement of work consistent with California Department Fish and Wildlife's (CDFW) most recent <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities</i> (CDFW 2018). Special status plants include Arcuate bush-mallow (blooms April through September), big-scale balsamroot (blooms March through June), California alkali grass (blooms March through May), chaparral harebell (blooms May through June), Congdon's tarplant (blooms May through October), Hall's bush-mallow (blooms May through September), Hispid bird's beak (blooms June through September), Hospital Canyon larkspur (blooms March through June), Lemmon's jewelflower (blooms February through May), Lime Ridge navarretia (blooms May through June), round-leaved filaree (blooms March through May),	SLDMWA and Reclamation	Field verification	Prior to and during construction

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	<p>shining navarretia (blooms April through July), and spiny-sepaed button-celery (blooms April through June).</p> <p>A qualified biologist will be present prior to and during construction to ensure avoidance of impacts on special status plant species and special status natural communities, outside the construction footprint, by implementing one or more of the following, as appropriate, per the biologist's recommendation:</p> <ul style="list-style-type: none"> • Ensure the boundary of construction is clearly delineated and avoids rare plant populations or natural communities to be protected • Allow adequate buffers (or as otherwise defined by federal or state take permits, if listed species are identified per permitting and environmental commitments) around identified and rare plant populations or natural communities <p>For unavoidable impacts to special status plant species from construction and inundation, a restoration and mitigation plan would be prepared to provide plant salvage and relocation consistent with CDFW guidance. If any impacts occur to listed plant species, consultation with United States Fish and Wildlife Service (USFWS) and/or CDFW will be initiated. If deemed necessary based on the type and extent of special-status plant populations affected, compensatory mitigation will entail:</p> <ol style="list-style-type: none"> a) Prior to unavoidable and permanent disturbance to a population of a special status plant species, propagules will be collected from the population to be disturbed. This may include seed collection or cuttings, and these propagules will be used to establish a new population on suitable, unoccupied habitat as described above within the San Luis Reservoir watershed. Transplantation may be attempted but will not be used as the primary means of plant salvage and new population creation, as many local rare plant species seeding may provide a better option to establish annual species. 			

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	<p>b) Creation of new populations will require identifying suitable locations and researching and determining appropriate and viable propagation or planting techniques for the species. It will require field and literature research to determine the appropriate seed sampling techniques and harvest numbers for acquisition of seeds from existing populations. Success criteria for established plant populations will be based on minimum area (for seeded plants) to provide a minimum 1:1 establishment area compared to the impacted area or a minimum 1:1 replacement ratio for individual plants based on transplanted individuals.</p> <p>c) A minimum 5-year monitoring plan with adaptive management will be implemented by Reclamation and SLDMWA to document the success of new plant populations and ensure no net loss. Adequate assurances will be provided to ensure long-term protection and management of lands to promote established rare plant populations.</p>			
TERR-2	<p>Valley Elderberry Longhorn Beetle. Prior to construction, a qualified biologist will perform preconstruction surveys to identify, map, and protect any elderberry shrubs in the project area. A minimum 165-foot avoidance buffer will be staked around elderberry shrubs that could be affected by construction. Individual plants that occur closer than 165 feet to construction will be surrounded with high-visibility fencing to avoid direct loss of plants, in coordination with USFWS. Consultation with the USFWS through the Section 7 process would be implemented by Reclamation if shrubs cannot be avoided during construction. If shrubs cannot be avoided, removal measures would be implemented and could include transplanting shrubs to a USFWS-approved conservation area, compensating for habitat loss at a ratio ranging from 1:1 to 8:1 depending on the diameter of the impacted elderberry stems and habitat type that they were removed from (riparian or non-riparian), under an Elderberry Mitigation Plan approved by USFWS, or purchasing credits at a USFWS-approved mitigation bank for valley elderberry longhorn beetle (VELB).</p>	SLDMWA and Reclamation	Field verification	Prior to construction

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TERR-3	<p>Special status Amphibians. Before and during construction:</p> <ul style="list-style-type: none"> The project proponent will submit the name and credentials of a biologist qualified to act as construction monitor to USFWS and CDFW for approval at least 30 days before construction work begins. General minimum qualifications are a 4-year degree in biological sciences and experience in surveying, identifying, and handling California tiger salamanders and California red-legged frogs (CRLFs). The approved biologist will be present at all times during construction. The USFWS- and CDFW-approved biologist, under the appropriate federal and state authorities (e.g., permitting and consultation), will survey the work sites 2 weeks before the onset of construction. If California tiger salamanders or CRLFs (or their tadpoles or eggs) are found, the approved biologist will contact USFWS and CDFW to determine whether moving any of these life-stages is appropriate. If USFWS and CDFW approve moving the animals, the biologist will be allowed sufficient time to move CRLFs or California tiger salamanders from the work sites before work begins. The biologist will immediately inform the construction manager that work will be halted, if necessary, to avert avoidable take of listed species. The biologist will use professional judgment to determine whether and when the California tiger salamanders or CRLFs are to be moved. If these species are not identified, construction can proceed at these sites. The known location of CRLFs and Willow Spring, the water source for the perennial frog pond near the borrow area, will be avoided during construction, with a buffer of 250 feet to avoid modifying aquatic habitat that supports the frog population, or as otherwise approved by the resource agencies. Areas impacted by construction will be monitored during construction to identify, capture, and relocate special status amphibians, if present. 	SLDMWA and Reclamation	Field verification	Prior to and during construction

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	<ul style="list-style-type: none"> • Areas beneath construction equipment and vehicles will be inspected daily, prior to operation, for presence of special status amphibians under tracks/tires and within machinery. If special status amphibians are found, a qualified biologist will capture and relocate animals from work sites. • Appropriate state and federal permits for handling of special status species will be acquired. • If necessary, a detailed amphibian relocation plan will be prepared at least 3 weeks before the start of groundbreaking and submitted to CDFW and USFWS for review. The purpose of the plan is to standardize amphibian relocation methods and relocation sites. • A USFWS- and CDFW-approved biologist will be present at the active work sites until special status amphibians have been removed and habitat disturbance has been completed. Thereafter, the construction contractor will designate a person to monitor on-site compliance with all minimization measures. A USFWS- and CDFW-approved biologist will ensure that this individual receives training consistent with USFWS requirements. • Reclamation and SLDMWA will install frog-exclusion fencing (i.e., silt fences) around all construction areas that are within 100 feet of any identified ponds that provide potential special status amphibian aquatic breeding habitat. During and after rain events, a qualified biologist will monitor work areas for the presence of special status amphibians. • Reclamation and SLDMWA will provide compensation for permanent and temporary impacts to 1.6 acres of California tiger salamander and CRLF aquatic habitat at Pond 44 under Alternative 3 (see Appendix K2 for location). Compensatory mitigation will be provided for the loss of aquatic breeding sites that will be filled or otherwise directly affected by the project and mitigate any impacts on associated CRLF upland habitat through compensatory mitigation. If possible, compensatory mitigation 			

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	<p>areas will be located within a California Red-Legged Frog Recovery Area, as identified in the <i>Recovery Plan for the California Red-Legged Frog (Rana aurora drayonii)</i> (USFWS 2002).</p> <ul style="list-style-type: none"> The total area, size, and number of CRLF or California tiger salamander mitigation ponds to be created will be based on a comparable loss of breeding habitat at the approximately 1.6-acre Pond 44 (see Appendix K-2 for location) (e.g., a minimum 1:1 replacement ratio;; or as otherwise specified by regulatory agencies) as a result of the project. These ponds will concurrently satisfy wetland mitigation requirements identified in Mitigation Measure TERR-2. To the degree possible, new mitigation ponds that are created for CRLF and California tiger salamander will be hydrologically self-sustaining and will not require a supplemental water supply. 			
TERR-4	<p>Western Pond Turtle. Before construction activities begin, a qualified biologist will conduct western pond turtle surveys within creeks and in other ponded areas affected by the project. Adjacent upland areas will be examined for evidence of nests and individual turtles. The project biologist will be responsible for the survey and for the relocation of pond turtles, if found. Construction will not proceed until reasonable effort has been made to capture and relocate as many western pond turtles as possible to minimize take. However, some individuals will be undetected or enter sites after surveys and would be subject to injury or mortality. If a nest is observed, a biologist with the appropriate permits and prior approval from CDFW will move eggs to a suitable location or facility for incubation and release hatchlings into the creek system the following autumn.</p>	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-5	<p>San Joaquin Whipsnake. A qualified biologist will conduct San Joaquin whipsnake surveys 2 weeks prior to construction activities within work sites and within 100 feet of disturbance areas. A qualified biologist will relocate any San Joaquin whipsnakes to suitable habitat outside of areas of disturbance. There is</p>	SLDMWA and Reclamation	Field verification	Prior to construction

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	possibility of snakes to move into the work sites after preconstruction surveys have checked the area, and some individuals could be subject to mortality. If San Joaquin whipsnakes are detected in work sites during construction, activities and equipment travel will cease in the immediate area of detection until the snake has left the work site or has been relocated out of the area by a qualified biologist.			
TERR-6	Nesting Bird Surveys. A qualified biologist will conduct nesting bird surveys prior to construction and supervise avoidance of nests during construction. The generally accepted nesting season extends from February 1 through September 15. If an active nest of a special status bird is found, construction within 300 feet of the nest (500 feet for raptor nests, excluding Swainson's hawk) will be postponed until the nest is no longer active.	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-7	Swainson's Hawk. Prior to construction, surveys for active Swainson's hawk nests will be conducted in and around all potential nest trees within 0.5 miles of construction areas. If known or active nests are identified through preconstruction surveys or other means, a 0.5-mile no-disturbance buffer will be established around all active nest sites if construction cannot be limited to occur outside the nesting season (February 15 through September 15). Buffer sizes may be reduced if approved by CDFW and active nest sites are monitored during construction by a qualified biologist. Permanent foraging habitat losses (i.e., grasslands) within 1 mile of active Swainson's hawk nests will be compensated by preserving, in perpetuity, suitable foraging habitat as provided in CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (1994). This includes permanently disturbed construction sites. CDFW will approve the location and types of habitats preserved.	SLDMWA and Reclamation	Field verification	Prior to construction

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TERR-8	<p>Bald and Golden Eagles and California Condor. The following measures address potential impacts on nesting eagles near San Luis Reservoir. An Eagle Conservation Plan would be developed and subsequently approved by USFWS before construction begins. Eagle nest avoidance buffers would be 1 to 2 miles, depending on the type of activity, as specified in the USFWS's Recommended Buffer Zones for Human Activities around Nesting Sites of Bald Eagles in California and Nevada and the USFWS Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada (USFWS 2017a and USFWS 2020). If active eagle nests are identified and avoidance guidelines cannot be feasibly implemented, then coordination with the USFWS would be warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an Eagle Take Permit by the USFWS would be necessary.</p> <ul style="list-style-type: none"> To compensate for the loss of 340.9 acres of grassland foraging habitat for golden eagles and California condors during construction and inundation, grasslands will be enhanced or restored at a minimum ratio of 1:1. Restoration or enhancement of grassland habitat will be conducted under a USFWS- and CDFW-approved restoration/enhancement plan. 	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-9	<p>Burrowing Owl. Prior to construction, surveys for burrowing owls would be conducted in areas supporting potentially suitable habitat. Any occupied burrows will not be disturbed during the breeding season (February 1 through August 31). A minimum 160-foot-wide buffer will be placed around occupied burrows during the nonbreeding season (September 1 through January 31), and a 250-foot-wide buffer will be placed around occupied burrows during the breeding season. Ground-disturbing activities will not occur within the designated buffers.</p> <p>In advance of construction, a qualified biologist will follow the current CDFW burrowing owl survey guidance to evaluate burrowing owl use. Measures will</p>	SLDMWA and Reclamation	Field verification	Prior to construction

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	<p>apply to all construction activities near active nests or within potential burrowing owl nesting habitat to avoid, minimize, or mitigate impacts on burrowing owls.</p> <p>Breeding season surveys will be performed to determine the presence of burrowing owls for the purposes of inventory, monitoring, avoidance of take, and determining appropriate mitigation. In California, the breeding season begins as early as February 1 and continues through August 31. Under the Burrowing Owl Consortium's multiphase survey methodology, for areas within 500 feet of construction boundaries, a biologist (1) will perform a habitat assessment to identify essential components of burrowing owl habitat, including artificial nest features; (2) will perform intensive burrow surveys in areas identified as providing suitable burrowing owl habitat; and; (3) will perform at least four appropriately-timed breeding season surveys (four survey visits spread evenly [roughly every 3 weeks] during the breeding season's peak, from April 15 to July 15) to document habitat use.</p> <p>Preconstruction surveys will be used to assess the owl presence before site modification is scheduled to begin. Generally, initial preconstruction surveys should be conducted within 7 days but no more than 30 days prior to ground-disturbing activities. Additional surveys may be required when the initial disturbance is followed by periods of inactivity or the development is phased spatially or temporally over the study area. Up to four or more survey visits performed on separate days may be required to assure with a high degree of certainty that site modification and grading will not take owls. The full extent of the preconstruction survey effort will be described and mapped in detail (e.g., dates, time periods, areas covered, methods employed) in a biological report that will provided for review to CDFW.</p> <p>In addition to the above survey requirements, the following measures will be implemented to reduce project impacts to burrowing owls:</p> <ul style="list-style-type: none"> • Construction exclusion areas (e.g., orange exclusion fence or signage) will be established around occupied burrows, where no disturbance will be allowed. During the nonbreeding season (September 1 through January 			

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	<p>31), the exclusion zone will extend at least 160 feet around occupied burrows. During the breeding season (February 1 through August 31), exclusion areas will extend 250 feet around occupied burrows (or farther if warranted to avoid nest abandonment).</p> <ul style="list-style-type: none"> • If work or exclusion areas conflict with owl burrows, passive relocation of on-site owls could be implemented as an alternative, but only during the nonbreeding season and only with CDFW approval. The approach to owl relocation and burrow closure will vary depending on the number of occupied burrows. Passive relocation will be accomplished by installing one-way doors on the entrances of burrows within 160 feet of the study area. The one-way doors will be left in place for 48 hours to ensure the owls have left the burrow. The burrows will then be excavated with a qualified biologist present. Construction will not proceed until the study area is deemed free of owls. • Unoccupied burrows within the immediate construction area will be excavated using hand tools and then filled to prevent reoccupation. The qualified biologist will be present during construction to continue examination of burrows. If any burrowing owls are discovered during the excavation, the excavation will cease and the owl will be allowed to escape. Excavation would be completed when the biological monitor confirms the burrow is empty. • Artificial nesting burrows will be provided as a temporary measure when natural burrows are lacking. To compensate for lost nest burrows, artificial burrows will be provided outside the 160-foot buffer zone. The alternate burrows will be monitored daily for 7 days to confirm the owls have moved in and acclimated to the new burrow. 			
TERR-10	Tricolored Blackbird. Prior to construction, appropriately timed surveys for tricolored blackbirds would be conducted in areas supporting potentially suitable habitat within 0.25 miles of construction areas. Habitat within 0.25 miles	SLDMWA and Reclamation	Field verification	Prior to construction

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	<p>of tricolored blackbird colonies will be avoided during nesting season, which can begin as early as mid-March and extend through August. If colonies cannot be avoided, CDFW will be consulted to potentially reduce buffer distances with active monitoring during construction by a qualified biologist.</p> <p>Prior to reservoir inundation, saddle dams will be dismantled within the inundation footprint to reduce tricolored blackbird breeding habitat that may be inadvertently flooded during the breeding season. Advance avian surveys would be performed, as described above, to avoid impacting nesting birds, including tricolored blackbird, during dam demolition.</p>			
TERR-11	<p>Special Status Bats. Impacts to special status bats will be minimized by performing preconstruction surveys and creating no-disturbance buffers around active bat roosting sites.</p> <p>Before construction activities (i.e., ground clearing and grading, including tree or shrub removal) within 200 feet of trees or structures that could support special status bats, a qualified bat biologist will survey for special status bats. If no evidence of bat habitat or other bat sign (i.e., direct observation, guano, staining, or strong odors) is observed, no further mitigation will be required.</p> <p>If evidence of bats is observed, the following measures will be implemented to avoid potential impacts on breeding populations:</p> <ul style="list-style-type: none"> • A no-disturbance buffer of 200 feet will be created around active bat roosts during the breeding season (April 15 through August 15). Bat roosts initiated during construction are presumed to be unaffected by the indirect effects of noise and construction disturbances. However, the direct take of individuals will be prohibited. • Removal of trees showing evidence of active bat activity will occur during the period least likely to affect bats, as determined and monitored by a qualified bat biologist (generally between February 15 and October 15 for winter hibernacula and between August 15 and April 15 for maternity 	SLDMWA and Reclamation	Field verification	Prior to construction

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	roosts). If the exclusion of bats from potential roost sites is necessary to prevent indirect impacts due to construction noise and adjacent human activity, bat exclusion activities (e.g., installation of netting to block roost entrances) will be conducted during these periods. If special status bats are identified in the dam or special allowances must be made to relocate bats, Reclamation and SLDMWA will coordinate the effort in advance with CDFW.			
TERR-12	<p>San Joaquin Kit Fox (SJKF). SJKF would be affected by construction activities if animals are harmed or killed by equipment, their movement is blocked, or their dens or other habitat is altered or destroyed. Prior to construction, a qualified biologist will conduct surveys to identify potential dens more than 4 inches in diameter. A habitat assessment in 2010 found 195 potential SJKF dens in the San Luis Reservoir work area (Reclamation 2010) (see Appendix I). If dens are located within the proposed work area and cannot be avoided during construction activities, a USFWS- and CDFW-approved biologist will determine if the dens are occupied. If occupied dens are present within the proposed work sites, their disturbance and destruction will be avoided. Exclusion zones will be implemented following the latest USFWS procedures (USFWS 2011).</p> <p>The proponent will implement SJKF protection measures. The following measures, which are intended to reduce direct and indirect project impacts on SJKF, are derived from the <i>San Joaquin Kit Fox Survey Protocol for the Northern Range</i> (USFWS 1999a) and the <i>Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance</i> (USFWS 1999b). The following measures will be implemented for construction areas at San Luis Reservoir:</p> <ul style="list-style-type: none"> • Preconstruction surveys will be conducted within 200 feet of work areas to identify potential SJKF dens or other refugia in and surrounding workstations. A qualified biologist will conduct the survey for potential SJKF dens 14–30 days before construction begins. All identified potential dens will be monitored for evidence of SJKF use by placing an inert 	SLDMWA and Reclamation	Field verification	Prior to construction

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	<p>tracking medium at den entrances and monitoring for at least 3 consecutive nights. If no activity is detected at these den sites, they will be closed following guidance established in the USFWS standardized recommendations (USFWS 1999b).</p> <ul style="list-style-type: none"> • If SJKF occupancy is determined at a given site during the preconstruction surveys or during the construction period, the construction manager will be immediately informed that work should be halted within 200 feet of the den and the USFWS will be contacted. Depending on the den type, reasonable and prudent measures to avoid effects to SJKF could include seasonal limitations on project construction at the site (e.g., restricting the construction period to avoid spring-summer pupping season) or establishing a construction exclusion zone around the identified site or resurveying the den 1 week later to determine species presence or absence. • Off-road vehicle and equipment movement will be limited to the project footprint. • To compensate for permanent impacts to grassland, which provides habitat for SJKF, lands will be acquired and covered by conservation easements or mitigation credits will be purchased at a 2:1 mitigation ratio or other compensation ratios approved by USFWS and CDFW. The location of compensatory lands will provide areas that are important to regional SJKF movement opportunities. • To compensate for the 8-year loss of the Santa Nella Area SJKF movement corridor during construction and ensure the SJKF movement corridor remains viable following construction, project design will be refined to include elements for SJKF movement at B.F. Sisk Dam and at the SR 152 causeway at Cottonwood Bay. A SJKF habitat connectivity plan describing the following mandatory wildlife movement elements to be refined during a review of the scientific literature base will be prepared 			

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	<p>and submitted for USFWS review and will be incorporated into the project:</p> <ul style="list-style-type: none"> ○ Broad (e.g., 80- to 120-foot-wide) earthen bridge over the mid-portion of the B.F. Sisk Dam spillway that connects to annual grasslands on either side of the spillway ○ Retention and improvement of the existing wildlife movement trail at the top of the spillway to ensure the finished pathway that is not rocked (or covered with earthen fill) connects to grasslands on either side of the spillway and is sufficiently wide to facilitate SJKF and large mammal movement ○ Finishing of the upper portion of SR 152 causeway at Cottonwood Bay with earthen materials, such as imported fill over rock, to allow wildlife movement across the causeway away from highway traffic 			
TERR-13	<p>American Badger. Impacts on badgers within annual grasslands and oak woodland at San Luis Reservoir will be minimized through a combination of worker training, preconstruction surveys, and passively or actively relocating animals. Concurrent with other required surveys, during winter and spring months before new project activities, and concurrent with other preconstruction surveys (e.g., SJKF and burrowing owl), a qualified biologist will perform a survey to identify the presence of active or inactive American badger dens. If this species is not found, no further mitigation will be required. If badger dens are identified within the construction footprint during the surveys or afterwards, they will be inspected and closed using the following methodology:</p> <ul style="list-style-type: none"> • When unoccupied dens are encountered outside of work areas but within 100 feet of proposed activities, vacated dens will be inspected to ensure they are empty and temporarily covered using plywood sheets or similar materials. 	SLDMWA and Reclamation	Field verification	Prior to construction

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	<ul style="list-style-type: none"> If badger occupancy is determined at a given site within the work area, work activities at that site should be halted. Depending on the den type, reasonable and prudent measures to avoid harming badgers will be implemented and will include seasonal limitations on project construction near the site (e.g., restricting the construction period to avoid spring-summer pupping season) or establishing a construction exclusion zone around the identified site or resurveying the den at a later time to determine species presence or absence. Badgers will be passively relocated using burrow exclusion (e.g., installing one-way doors on burrows) or similar CDFW-approved exclusion methods. In unique situations, it may be necessary to actively relocate badgers (using live traps) to protect individuals from potentially harmful situations. Such relocation would be performed with advance CDFW coordination and concurrence. 			
TERR-14	Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp. While project design is planned to avoid fill of seasonal wetlands and pools identified as suitable habitat for vernal pool crustaceans, if any vernal pool fairy shrimp or vernal pool tadpole shrimp habitat will be impacted, in the absence of surveys, species presence will be assumed. Measures to ensure no net loss of habitat may include compensating for impacts at a 2:1 ratio for preservation and at a 1:1 ratio for creation.	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-15	Construction Contractor Environmental Awareness Training and Site Protection Measures. All construction personnel will attend an environmental education program delivered by a USFWS- and CDFW- approved biologist prior to starting work. The training will include an explanation as how to best avoid the accidental take of special status plants and wildlife. The field meeting will include species identification, life history, descriptions, and habitat requirements. The program will include an explanation of federal and state laws protecting endangered species and avoidance and minimization methods being	SLDMWA and Reclamation	Field verification	Prior to and during construction

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	<p>implemented to protect these species. A qualified biologist will be present on the site at all times during construction.</p> <p>The construction contractor will provide closed garbage containers for the disposal of all trash items (e.g., wrappers, cans, bottles, food scraps). Work sites will be cleaned of litter before closure each day and placed in wildlife-proof garbage receptacles. Construction personnel will not feed or otherwise attract any wildlife. No pets, excluding service animals, will be allowed on-site or in construction areas.</p> <p>Nighttime vehicle traffic will be kept to a maximum speed of 15 miles per hour on unpaved roads.</p> <p>To minimize disturbance to wildlife, temporary and permanent exterior lighting will be installed such that:</p> <ul style="list-style-type: none"> • Lamps and reflectors are not visible from beyond the project site • Reflective glare will be minimized to the extent feasible • Illumination of the project and its immediate vicinity is minimized • Lighting will incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated • All lighting will be of minimum necessary brightness consistent with operational safety and security • Lights in areas not occupied on a continuous basis (such as maintenance areas) will have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied 			
TERR-16	Mitigation measures for special status communities, including jurisdictional wetlands or waters and streambeds and banks regulated by CDFW, RWQCB, and USACE, and native grassland.	SLDMWA and Reclamation	Field verification	Prior to and during construction

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	<p><i>Mitigation Measure TERR-16a.</i> Final project design will avoid and minimize the fill of wetlands and other waters, identified through Section 404 permitting, to the greatest practicable extent.</p> <p>Prior to construction, a qualified biologist person will delineate the extent of jurisdictional areas to be avoided in the field. Reclamation will designate areas to be avoided as Restricted Areas and protect them using highly visible fencing, rope, or flagging, as appropriate based on site conditions. No construction activities or disturbance will occur within Restricted Areas that are designated to protect wetlands.</p> <p><i>Mitigation Measure TERR-16b.</i> Where jurisdictional wetlands and other waters cannot be avoided, to offset temporary and permanent impacts that would occur as a result of the project (see Tables 4-3 and 4-4), restoration and compensatory mitigation to ensure no net loss will be provided as described below.</p> <p>A wetland mitigation and monitoring plan will be developed in coordination with CDFW, United States Army Corps of Engineers (USACE), or Regional Water Quality Control Board (RWQCB) to detail mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters due to construction activities and for other CDFW jurisdictional areas. The plan will quantify the total acreage affected; provide for mitigation, as described below, to wetland or riparian habitat; specify annual success criteria for mitigation sites; specify monitoring and reporting requirements; and prescribe site-specific plans to compensate for wetland losses resulting from the project consistent with the USACE's no net loss policy.</p> <p>Prior to construction, the aquatic structure of wetland and riparian areas to be disturbed will be photo-documented and measurements of width, length, and depth will be recorded. Recontouring and revegetation of the disturbed portions of jurisdictional areas in areas temporarily affected by construction prior to demobilization by the construction contractor will be completed at the end of</p>			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	<p>project construction. Creek banks will be recontoured to a more stable condition if necessary.</p> <p>Revegetation will include a palette of species native to the watershed area according to a revegetation plan to be developed by Reclamation and submitted to USACE, CDFW, and RWQCB for approval. Following removal, woody trees habitat acreage would be replanted at a minimum 1:1 ratio, or as determined and agreed upon by the permitting agencies. Interim vegetation or other measures will be implemented as necessary to control erosion in disturbed areas prior to final revegetation.</p> <p>Wetland and other waters impact in the construction and inundation area will be compensated at a ratio of 2:1 or at a ratio agreed upon by the wetland permitting agencies. Compensatory mitigation will be conducted by creating or restoring wetland and aquatic habitat at an agency-approved location on nearby lands or through purchasing mitigation credits at a USACE- or CDFW-approved mitigation bank (depending on the resource). If mitigation is conducted on- or off-site, a 5-year wetland mitigation and monitoring program for on- and off-site mitigation will be developed. Appropriate performance standards may include a 75% survival rate of restoration plantings; absence of invasive plant species; and a viable, self-sustaining creek or wetland system at the end of 5 years.</p> <p>A weed control plan for the project to limit the spread of noxious or invasive weeds will be developed. This plan would be consistent with current integrated pest management plans already in practice on lands surrounding the reservoir. Noxious or invasive weeds include those rated as "high" in invasiveness by the California Invasive Plant Council. The plan will include a baseline survey to identify the location and extent of invasive weeds in the study area prior to ground-disturbing activity, a plan to destroy existing invasive weeds in the construction area prior to initiation of ground-disturbing activity, weed-containment measures while the project is in progress, and monitoring and control of weeds following completion of construction.</p>			

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Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
REC-1	The following measure will be implemented in coordination with California Department of Parks and Recreation (CDPR): Boat launch at the San Luis Creek would be expanded by addition of a launch lane and a boarding float before initiation of the Dam Raise construction actions.	SLDMWA and Reclamation in coordination with CDPR	Documentation on file with Reclamation, SLDMWA, and field verification	Prior to construction
REC-2	The following measure will be implemented in coordination with CDPR: Sections of the Lone Oak Trail near the San Luis Reservoir shoreline that would be inundated from increased capacity will be moved upslope to avoid the potential for inundation when an enlarged San Luis Reservoir is forecasted to be filled to capacity.	SLDMWA and Reclamation in coordination with CDPR	Documentation on file with Reclamation, SLDMWA, and field verification	Prior to construction
CR-1	Complete Cultural Resource Evaluation Efforts. Following congressional authorization but prior to the signing of a Record of Decision (ROD) to implement the project, an agreement document will be executed. Reclamation will follow implementing regulations for National Historic Preservation Act (NHPA) Section 106 to identify historic properties within the area of potential effects (APE) for the selected alternative using National Register of Historic Places (NRHP) criteria (see Appendix M of the Draft EIR/SEIS). Reclamation will consult with the State Historic Preservation Office (SHPO), Native American tribal representatives, and other consulting parties as appropriate. SLDMWA will follow CEQA Guidelines to identify historical resources, unique archaeological resources, or tribal cultural resources within the APE using California Register of Historic Resources (CRHR) criteria and by consulting Native American tribal representatives consistent with Assembly Bill 52. Cultural resource evaluation efforts will be directed by personnel meeting <i>Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines</i> (36 Code of Federal Regulations [CFR] Part 61), as appropriate, and specific methodologies used will be determined based on the nature (e.g., archaeological sites versus building or structures), location, and scale of the cultural resource under	Reclamation	Documentation on file with Reclamation	Following congressional authorization and prior to signing of a ROD

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	evaluation. A technical report detailing evaluation efforts will be produced and forwarded to the California Historic Resources Information System (CHRIS).			
CR-2	Implement Avoidance or Mitigation Measures. Once evaluation efforts have been completed, measures to avoid, minimize, or mitigate impacts to significant cultural resources will be implemented consistent with NHPA Section 106 (36 CFR Part 800.6), CEQA Guidelines Section 15126.4(b), and PRC Section 21084.3. Significant cultural resources that can be avoided by project activities will be marked for exclusion on project plans or on the ground. Personnel meeting <i>Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines</i> (36 CFR Part 61) will monitor project ground-disturbing activities or modifications to the built environment as appropriate to ensure the avoidance of significant cultural resources. Other methods to ensure preservation in place (e.g., capping or incorporation within an open space or permanent easement) will be used as necessary. Where data recovery through excavation is the only feasible form of mitigation, a data recovery plan will be prepared to provide for the recovery of significant information from the resource. For tribal cultural resources, mitigation efforts will be determined in consultation with the culturally affiliated tribe. Mitigation of impacts to significant historic period built environment resources may include detailed recording, production of interpretive materials, or other measures identified in the amended Programmatic Agreement. Studies and reports resulting from avoidance and mitigation measures will be deposited with CHRIS. Human remains, if encountered, will be treated consistent with Native American Graves Protection and Repatriation Act (NAGPRA) if discovered on federal lands and PRC Section 21084.4 and California Health and Safety Code Section 7050.5 if encountered on nonfederal lands.	SLDMWA and Reclamation	Documentation on file with Reclamation	Prior to and during construction
CR-3	Implement a Detailed Inadvertent Discovery Plan. Prior to initiating construction of the selected alternative and consistent with NHPA Section 106 and CEQA compliance efforts determined through consultation with the SHPO, Native American tribal representatives, and other consulting parties, a detailed inadvertent discovery plan will be prepared for the project. The plan will be	SLDMWA and Reclamation	Documentation on file with Reclamation	Prior to and during construction

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Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	prepared by personnel meeting appropriate <i>Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines</i> (36 CFR Part 61) and will outline cultural resource training procedures for construction personnel and the protocols to follow if cultural resources or human remains are discovered during project ground-disturbing activities. In the event of an inadvertent discovery, construction near the find will halt and work will be directed elsewhere while the significance of the find is evaluated. If the discovery is significant, additional measures identified in the plan (e.g., avoidance, capping beneath a layer of sterile soil, data recovery excavations, consultation with the culturally affiliated tribe for suspected tribal cultural sources) will be implemented consistent with NHPA Section 106 (36 CFR Part 800.13), CEQA Guidelines Section 15126.4(b), and PRC Section 21084.3. Human remains, if encountered, will be treated consistent with NAGPRA if discovered on federal lands and PRC Section 21084.4 and California Health and Safety Code Section 7050.5 if encountered on nonfederal lands.			
NEPA Only Cultural Mitigation Measures	<p>A reasonable and good faith effort has been made to identify historic properties within the APE for Alternative 3 through archival research and inventory surveys on lands accessible to the Lead Agencies. Additional efforts are needed, however, to evaluate potential historic properties within the APE for Alternative 3 and to assess the effects of the project on those properties. These efforts cannot be completed at this time. If Congress authorizes funding for final design and construction of Alternative 3 identified in the companion feasibility report and in this draft EIR/SEIS, an amendment to the Programmatic Agreement for the B.F. Sisk Dam SOD Modification Project outlining a process for completing evaluation efforts and resolving adverse effects to historic properties will be negotiated with the SHPO to satisfy NHPA Section 106 compliance requirements.</p> <p>Following congressional authorization to implement the project, Reclamation will complete all remaining historic property evaluation efforts required by the negotiated Programmatic Agreement. Adverse effects to historic properties will be resolved by completing the NHPA Section 106 process, which will satisfy</p>	Reclamation	Documentation on file with Reclamation	Following congressional authorization

Appendix C
Mitigation Monitoring and Reporting Program

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	federal Lead Agency requirements with respect to NHPA and National Environmental Policy Act (NEPA). A process to avoid, minimize, or mitigate adverse effects to historic properties will be formalized in the agreement document per 36 CFR Part 800.6(c).			
GEO-1	Avoidance and Management of Inadvertent Paleontological Discoveries. A qualified paleontologist will monitor earthmoving construction activities that have the potential to disturb previously undisturbed native sediment. Monitoring will not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, or in areas where exposed sediment will be buried but not otherwise disturbed. If paleontological remains are discovered during construction, construction will cease or be directed away from the discovery and the potential resource will be evaluated by the paleontologist. The paleontologist will recommend appropriate measures to avoid, record, preserve, or recover the resource if determined to be unique.	SLDMWA and Reclamation	Documentation on file with SLDMWA	During construction

C.3 List of Acronyms

APE – area of potential effects
Caltrans – California Department of Transportation
CARB – California Air Resources Board
CDFW – California Department of Fish and Wildlife
CDPR – California Department of Parks and Recreation
CEQA – California Environmental Quality Act
CFR – Code of Federal Regulations
CHRIS – California Historic Resources Information System
CRHR – California Register of Historic Resources
CRLF – California red-legged frog
EIR – Environmental Impact Report
EIR/SEIS – Environmental Impact Report/Supplemental Environmental Impact Statement
EIS – Environmental Impact Statement
GHG – Greenhouse House Gas
HASP – health and safety plan
MMRP – Mitigation and Monitoring Program
NAGPRA – Native American Graves Protection and Repatriation Act
NEPA – National Environmental Policy Act
NHPA – National Historic Preservation Act
NOx – nitrogen oxide
NRHP – National Register of Historic Places
OSHA – Occupational Safety and Health Administration
PM_{2.5} – fine particulate matter
PM₁₀ – respirable particulate matter
PRC – Public Resources Code
Project – B.F. Sisk Dam Raise and Reservoir Expansion Project
Reclamation – Bureau of Reclamation
ROD – Record of Decision
SHPO – State Historic Preservation Office
SJKF – San Joaquin Kit Fox
SJVAB – San Joaquin Valley Air Board
SJVAPCD – San Joaquin Valley Air Pollution Control District

SLDMWA – San Luis & Delta-Mendota Water Authority

SOD – Safety of Dams

SR – State Route

USACE – United States Army Corps of Engineers

USFWS – United States Fish and Wildlife Service

VELB – valley elderberry longhorn beetle

C.4 References

- Bureau of Reclamation (Reclamation). 2010. 2010–2011 Long-Term Water Transfers Program EA and FONSI.
- California Department of Transportation (Caltrans). 2011. Officially Designated Scenic Highways, Merced County [map]. “Caltrans Scenic Highway Program”. Accessed on: 20 05 2016. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/merced.htm.
- .2014. California Manual on Uniform Traffic Control Devices. Available here: <https://dot.ca.gov/programs/traffic-operations/camutcd/camutcd-rev5>
- California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. Available here: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>
- United States Fish and Wildlife Service (USFWS). 1999a. San Joaquin Kit Fox Survey Protocol for the Northern Range, U.S. Department of the Interior, Fish and Wildlife Service, June 1999.
- .1999b. Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior To or During Ground Disturbance. Available here: https://www.fws.gov/ventura/docs/species/protocols/sj kf/sanjoaquin kit fox_protection.pdf
- .2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.
- .2007. National Bald Eagle Management Guidelines. U.S Fish and Wildlife Service, May.
- .2011. Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. Prepared by the Sacramento Fish and Wildlife Office. Accessed on 10 31 2016.

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Appendix D: Distribution List

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Appendix D

Distribution List

This appendix includes the distribution list for the B.F. Sisk Dam Raise and Reservoir Expansion Project Final Environmental Impact Report/Supplemental Environmental Impact Statement (EIR/SEIS). Only names and affiliations, if applicable, are shown on this list. This list has been in development since the Notice of Intent and scoping meeting in 2020¹.

Electronic copies of the Final EIR/SEIS are available for public review at the following locations:

- San Luis and Delta-Mendota Water Authority website (insert hyperlink)
- Bureau of Reclamation, California-Great Basin Region (insert hyperlink)
- Sacramento Public Library Catalog (insert hyperlink)

The distribution list includes the following:

- Representatives from other Federal, State, and local agencies that commented or expressed interest in the project.
- Representatives from non-governmental organizations that attended public meetings, provided comments, or expressed interest in the project.
- Interested members of the public that attended public meetings, provided comments, or expressed interest in the project.

D.1 Federal, Tribal, State, and Local Agencies

D.1.1 Federal Agencies

- | | |
|-------------------------------------|--|
| • National Marine Fisheries Service | • U.S. Department of the Interior, Office of the Solicitor |
| • U.S. Army Corps of Engineers | • U.S. Department of Justice |
| • U.S. Bureau of Indian Affairs | • U.S. Environmental Protection Agency |
| • U.S. Bureau of Land Management | • U.S. Fish and Wildlife Service |

¹ The San Luis and Delta-Mendota Water Authority (SLDMWA) and U.S. Bureau of Reclamation (Reclamation) used scoping meeting and public meeting attendee lists and comment letters to help develop the distribution list. Some individuals that provided comments did not provide email addresses. If a name or email address was missed, SLDMWA and Reclamation have made the EIR/SEIS available at identified locations and on SLDMWA's and Reclamation's website listed above.

D.1.2 State Agencies and Organizations

- California Air Resources Board
- California Bay-Delta Authority
- California Department of Fish and Wildlife (Region 4)
- California Department of Forestry and Fire Protection
- California Department of Parks and Recreation
- California Department of Transportation (District #10)
- California Department of Water Resources
- California Environmental Protection Agency
- California Farm Bureau Federation
- California Highway Patrol
- California High Speed Rail Authority
- California Natural Resources Agency
- California Office of Historic Preservation
- California Regional Water Quality Control Board (Region 5)
- California State Water Resources Control Board
- Central Valley Flood Protection Board
- Native American Heritage Commission
- Department of Forestry and Fire Protection
- State Water Contractors
- Office of Historic Preservation

D.1.3 Regional and Local Parties

- Alameda County
- Amah Mutsun Tribal Band
- Bay Area Air Quality Management District
- City of Gilroy
- City of Gustine
- City of Los Banos
- City of San Jose
- Contra Costa County
- Contra Costa Water District
- Dunma Wo-Wash Tribal Government
- East Bay Municipal Utility District
- Fresno County
- Friant Water Authority
- Kern County
- Kings County
- Los Angeles County
- Madera County
- Merced County
- North Valley Yokuts Tribe
- Orange County
- Pacific Gas & Electric
- San Benito County
- San Bernardino County
- San Diego County
- San Joaquin County
- San Joaquin Valley Air Pollution Control District
- San Luis Obispo County
- Santa Barbara County
- Santa Clara County
- Santa Clara Valley Water District
- Southern Sierra Miwuk Nation
- Stanislaus County
- Tulare County
- Ventura County
- Western Area Power Administration- Sierra Nevada Region

D.2 Individuals

- Amy Nelson Frelinger
- Andrew Fisher
- Dale Ashley
- David Frelinger
- Dennis Brazil
- Diane Falge
- John Thompson
- Karen and Ray Briese
- Karin Campbell
- Kevin Olds
- Krista Frelinger
- Linda Foust
- Loel Wood
- Lois Wollenman
- Louie Bishop
- Monica Wright
- Paula Bazzell
- Richard Kreps
- Stacey Swinney
- Scott Steward
- Sunny Hand
- Ron Posey
- William Hembree

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— BUREAU OF —
RECLAMATION