# 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

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: <a href="https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act">https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act</a>. 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</a>

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<sub>2.5</sub>). 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), PM<sub>10</sub>, and PM<sub>2.5</sub> 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).

*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.

Mobile and Stationary Source Controls:

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

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- 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.).<sup>1</sup>
  - 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.).<sup>2</sup>

## 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.<sup>3</sup>
- 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.

#### 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).

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<sup>&</sup>lt;sup>1</sup> See <u>https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100O9ZZ.pdf</u>

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

<sup>&</sup>lt;sup>3</sup> 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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*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.

# **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.

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.

#### **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.

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September 28<sup>th</sup>, 2020

Comment ID B

Via electronic mail: <u>carthur@usbr.gov</u> pablo.arroyave@sldmwa.org

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Pablo Arroyave San Luis and Delta-Mendota Water 842 6th Street Los Banos,CA 93635 Phone: 209-833-1034 Email: pablo.arroyave@sldmwa.org

# Re: <u>B.F. Sisk Dam Raise and Reservoir Expansion Project Draft Environmental Impact</u> <u>Report/Supplemental Environmental Impact Statement</u>

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

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Cassandra Arthur, Bureau of Reclamation / Pablo Arroyave, San Luis-Delta Mendota Water Authority September 28<sup>th</sup>, 2020 Page 2 of 3

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.

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

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Cassandra Arthur, Bureau of Reclamation / Pablo Arroyave, San Luis-Delta Mendota Water Authority September 28<sup>th</sup>, 2020 Page 3 of 3

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.

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.

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 <u>jfredrickson@cfbf.com</u>.

Sincerely,

Justin Fredrickson Environmental Policy Analyst

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September 28, 2020

Casey Arthur Bureau of Reclamation, Willows Construction Office 1140 W. Wood Street Willows, CA 95988

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<br/>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 <u>for allocation in</u> <u>subsequent drier years to South-of-Delta CVP contractors</u>. In these drier years, the 310 TAF in

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reserved supply would be <u>allocated to M&I South-of-Delta CVP contractors</u>, 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 <u>drier years could potentially be diverted for delivery to the Exchange Contractors in critical</u> <u>water year types (emphasis added).</u>" 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.

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

Sincerely,

Jason Phillips Chief Executive Officer





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September 28, 2020

GENERAL MANAGER Stephen J. Welch, P.E., S.E.

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

Casandra Arthur Bureau of Reclamation Willows Construction Office 1140 W. Wood Street Willows, CA, 95988

Pablo Arroyave San Luis and Delta-Mendota Water Authority 842 6th Street Los Banos, CA 93635

# 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.

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.

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.

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CCWD Comments on the B.F. Sisk Dam Raise and Reservoir Expansion Project Draft EIR/SEIS September 28, 2020 Page 3

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



State of California – Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Central Region 1234 East Shaw Avenue Fresno, California 93710 (559) 243-4005 www.wildlife.ca.gov

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Comment ID E

September 28, 2020

Pablo Arroyave San Luis and Delta-Mendota Water Authority 842 6<sup>th</sup> Street Los Banos, California 93635

Casandra 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.<sup>1</sup>

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.

# **CDFW ROLE**

Conserving California's Wildlife Since 1870

<sup>&</sup>lt;sup>1</sup> 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 statue 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.

**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 (Aguila 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.

## **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.

# **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 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.

**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

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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).

# 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

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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 <sup>1</sup>/<sub>2</sub>-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.

**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

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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.

## **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.

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 E-7

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.

# **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, 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."

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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.

# 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 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 E-8

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.

# **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.

# **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

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- 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

# 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.

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

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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.

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.

**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

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habitats, it is advised that consultation with CDFW occur well in advance of any SWRCB water right application process.

**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.

**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."

# 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: <u>https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data</u>. 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

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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 (<u>https://www.wildlife.ca.gov/Conservation/Survey-Protocols</u>). 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

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

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Pablo Arroyave; Casandra Arthur San Luis and Delta-Mendota Water Authority; Bureau of Reclamation September 28, 2020 Page 21

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USFWS. 2017b. Species Account for California Red-legged frog. March 2017. 1 pp.

# 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			
Before Disturbing Soil or Vegetation				
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				
During Construction				
Mitigation Measure 2: CTS Avoidance				
Mitigation Measure 7: FYLF and CRLF Avoidance				
Mitigation Measure 10: SWHA No-disturbance Buffer				
Mitigation Measure 14: Fencing				

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) <del>916.353.4081</del> | (M) 916.203.7454 | <u>prowatzke[at]wapa.gov</u> 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, costbased 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.
- 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.
- 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.
- 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.

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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 agencies<sup>1</sup>, 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.

1121 L Street, Suite 1050 • Sacramento, California 95814-3944 • 916.447.7357 • FAX 916.447-2734 • www.swc.org

#### DIRECTORS

Valerie Pryor President Alameda County Flood Control and Water Conservation District, Zone 7

Ray Stokes Vice President Central Coast Water Authority

Craig Wallace Secretary-Treasurer Kern County Water Agency

Stephen Arakawa Metropolitan Water District of Southern California

Robert Cheng Coachella Valley Water District

Kathy Cortner Mojave Water Agency

Mark Gilkey Tulare Lake Basin Water Storage District

Thomas Pate Solano County Water Agency

Matthew Stone Santa Clarita Valley Water Agency

General Manager Jennifer Pierre

<sup>&</sup>lt;sup>1</sup> 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 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.

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

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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 during the mitigated.

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.

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-feet 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.

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.

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and maintenance costs of existing infrastructure for SWP. Additional energy use, greenhouse gas emissions and costs should be analyzed, disclosed, and mitigated.

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.

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 (<u>cchilmakuri@swc.org</u>) and Metropolitan (<u>jsafely@mwdh2o.com</u>) 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

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G-7

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

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.

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

John Yarbrough for

Ted Craddock Deputy Director State Water Project

Enclosure

DocuSign Envelope ID: 5C6177B2-BC69-4833-808B-39A78B5A62FB

# 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.

- 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.
- 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.
- 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.

# 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.

# 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

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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.

# 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.

# Dam Safety

- 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)

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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.

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.

# H10

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

I-1

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

Sent from my iPhone

J-1

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

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K-1



# **Comment Log**

2295 Gateway Oaks Drive, suite 250 Sacramento, CA 95833 916.567.9900

Project:	B.F. Sisk Dam Raise and Reservoir	<b>Data:</b> $0/2/20$
	Expansion Project	Date:

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?

Response: Thank you for commenting. Your comment will be addressed in the Final EIR/SEIS.

| L-1

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Appendix B: EIR/SEIS Appendix EIR/SEIS Appendix Errata Sheets This page left blank intentionally

# **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:

# **CoordinatedperatedOperationsAgreement**

**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 was added:

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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 was 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 incudes 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 was 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 was 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 was 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. 20022003. 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).

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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: 61).

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 Windmiller 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 Kahwatchwah Yokut tribe lived in the San Luis Reservoir area (Latta 194779).

# 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 193678).

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 (196948) 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-

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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 bureaueratic 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 1976Levy (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, directoring cermemonial 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. 1983Levy 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 cordsbraided 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. 1983Levy 1977:: 299493). According to these accounts, m. 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 1974Levy 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 <del>1936</del>*1977*<del>: 14-15;</del>, 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 (Igler 2001: 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 (Autobee 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 (Autobee 2011: 11-12; Reclamation 1974: 49).

B.F. Sisk Dam Raise and Reservoir Expansion Project

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# 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 (Autobee 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 (Autobee 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 <u>https://usbr.gov/projects/pdf.php?id=109</u>. <u>http://www.usbr.gov/projects//ImageServer?imgName=Doc\_130339658</u> 6494.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

- 20210 California Highways, SR 152. Accessed February 2010. Available at *http://www.cahighways.org/ROUTE*145-152.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 Countiesy. 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, 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

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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.
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- 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.

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- 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.

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# Page 8-7

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- 2019 B.F. Sisk Dam Safety of Dams Modification Project Final Environmental Impact Statement/ Environmental Impact Report. Available at <u>https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc\_ID=3</u> <u>9981</u>.

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# **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:

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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:
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The second reference in the Chapter 3 section on page P-10 of the Draft EIR/SEIS is revised as follows:

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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: <u>https://www.usbr.gov/mp/nepa/nepa\_project\_details.php?Project\_ID=34281</u>

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.

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# 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 in Chapter 5 of the B.F. Sisk SOD Modification Project Final Environmental Impact Statement (EIS)/EIR<sup>1</sup>.

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.

<sup>&</sup>lt;sup>1</sup> The <u>B.F. Sisk Dam SOD Modification Project Final EIS/EIR</u> is available for review at the following hyperlink: https://www.usbr.gov/mp/nepa/nepa\_project\_details.php?Project\_ID=34281

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#### **Table M-1. Mitigation Measures**

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification			
AQ-1	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.	SLDMWA and Reclamation	SLDMWA Construction and contract Reclamation requirement	SLDMWA Constru and contract Reclamation requirer	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
	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.						
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 marine construction equipment capable of achieving an 85% <sup>2</sup> reduction in NOx.	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction			

<sup>&</sup>lt;sup>2</sup> Mitigation Measure AQ-3 has been revised since the completion of the EIR/SEIS to clarify its applicability to marine construction equipment. The shift in emission control requirements for marine construction equipment with this revision will reduce the total forecast NOx emissions generated by the project when compared to the emission estimates identified in the EIR/SEIS. NOx emission levels generated by all other construction equipment proposed for use on the B.F. Sisk Dam Raise and Reservoir Expansion Project, are controlled by the requirements identified in Mitigation Measures AQ-1 and AQ-2 and for that equipment, there would be no change from the emission estimates identified in the EIR/SEIS.

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
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
AQ-5	Construction contractors will be required to incorporate the following administrative control measures to minimize air pollutant and greenhouse gas (GHG) emissions:	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction
	<ul> <li>Coordinate with appropriate air quality agencies to identify a construction schedule that minimizes cumulative impacts from other planned projects in the region, if feasible.</li> </ul>			
	<ul> <li>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.).</li> </ul>			
	<ul> <li>Avoid routing truck traffic near sensitive land uses to the fullest extent feasible.</li> </ul>			
	<ul> <li>Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production.</li> </ul>			
	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. <sup>3</sup>			
	<ul> <li>Reduce construction-related trips of workers and equipment, including trucks.</li> </ul>			

<sup>&</sup>lt;sup>3</sup> 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.

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	<ul> <li>Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.</li> </ul>			
	<ul> <li>Identify all commitments to reduce construction emissions and quantify air quality improvements that would result from adopting specific air quality measures.</li> </ul>			
	• 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	SLDMWA and Reclamation	Construction contract requirement	Prior to and during construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	equipment roofing materials and any exposed vents or flashings must be constructed of nonglare finishes that minimize reflectivity.			
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	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.	SLDMWA and Reclamation	Final Design and Construction contract requirement	Prior to and during construction
	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.			
	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			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	site. The measure will mitigate conflicts with emergency responders entering and existing the area during an emergency.			
	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	<b>Special Status Plant Species and Special Status Natural Communities.</b> 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</i> <i>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),	SLDMWA and Reclamation	Field verification	Prior to and during construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	Lemmon's jewelflower (blooms February through May), Lime Ridge navarretia (blooms May through June), round-leaved filaree (blooms March through May), shining navarretia (blooms April through July), and spiny-sepaled button-celery (blooms April through June).			
	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:			
	• Ensure the boundary of construction is clearly delineated and avoids rare plant populations or natural communities to be protected			
	<ul> <li>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</li> </ul>			
	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:			
	<ul> <li>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</li> </ul>			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	creation, as many local rare plant species seeding may provide a better option to establish annual species.			
	<ul> <li>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.</li> </ul>			
	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.			
TERR-2	<b>Valley Elderberry Longhorn Beetle.</b> 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	SLDMWA and Reclamation	Field verification	Prior to construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	approved by USFWS, or purchasing credits at a USFWS-approved mitigation bank for valley elderberry longhorn beetle (VELB).			
TERR-3	<ul> <li>Special status Amphibians. Before and during construction:</li> <li>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</li> </ul>	SLDMWA and Reclamation	Field verification	Prior to and during construction
	<ul> <li>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.</li> <li>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.</li> </ul>			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	<ul> <li>Areas impacted by construction will be monitored during construction to identify, capture, and relocate special status amphibians, if present.</li> </ul>			
	<ul> <li>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.</li> </ul>			
	<ul> <li>Appropriate state and federal permits for handling of special status species will be acquired.</li> </ul>			
	<ul> <li>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.</li> </ul>			
	• 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.			
	<ul> <li>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.</li> </ul>			
	• 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			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	the project and mitigate any impacts on associated CRLF upland habitat through compensatory mitigation. If possible, compensatory mitigation 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</i> ( <i>Rana aurora drayonii</i> ) (USFWS 2002).			
	• 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	<b>Western Pond Turtle.</b> 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.	SLDMWA and Reclamation	Field verification	Prior to construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
TERR-5	<b>San Joaquin Whipsnake.</b> 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 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.	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-6	<b>Nesting Bird Surveys.</b> 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	<ul> <li>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.</li> <li>Permanent foraging habitat losses (i.e., grasslands) within 1 mile of active</li> </ul>	SLDMWA and Reclamation	Field verification	Prior to construction
	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			

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	construction sites. CDFW will approve the location and types of habitats preserved.			
TERR-8	<ul> <li>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 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.</li> <li>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.</li> </ul>	SLDMWA and Reclamation	Field verification	Prior to construction
TERR-9	<b>Burrowing Owl.</b> 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	SLDMWA and Reclamation	Field verification	Prior to construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	breeding season. Ground-disturbing activities will not occur within the designated buffers.			
	In advance of construction, a qualified biologist will follow the current CDFW burrowing owl survey guidance to evaluate burrowing owl use. Measures will apply to all construction activities near active nests or within potential burrowing owl nesting habitat to avoid, minimize, or mitigate impacts on burrowing owls.			
	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.			
	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.			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	In addition to the above survey requirements, the following measures will be implemented to reduce project impacts to burrowing owls:			
	<ul> <li>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 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).</li> </ul>			
	<ul> <li>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.</li> </ul>			
	• 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.			
	<ul> <li>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</li> </ul>			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	alternate burrows will be monitored daily for 7 days to confirm the owls have moved in and acclimated to the new burrow.			
TERR-10	<b>Tricolored Blackbird.</b> 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 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.	SLDMWA and Reclamation	Field verification	Prior to construction
	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.			
TERR-11	<b>Special Status Bats.</b> Impacts to special status bats will be minimized by performing preconstruction surveys and creating no-disturbance buffers around active bat roosting sites.	SLDMWA and Reclamation	Field verification	Prior to construction
	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.			
	If evidence of bats is observed, the following measures will be implemented to avoid potential impacts on breeding populations:			
	<ul> <li>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</li> </ul>			

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	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 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	<b>San Joaquin Kit Fox (SJKF).</b> 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). 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).	SLDMWA and Reclamation	Field verification	Prior to construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	The following measures will be implemented for construction areas at San Luis Reservoir:			
	• 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 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).			
	<ul> <li>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.</li> </ul>			
	<ul> <li>Off-road vehicle and equipment movement will be limited to the project footprint.</li> </ul>			
	• 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.			

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	• 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 and submitted for USFWS review and will be incorporated into the project:			
	<ul> <li>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</li> </ul>			
	<ul> <li>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</li> </ul>			
	<ul> <li>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</li> </ul>			
TERR-13	<b>American Badger.</b> 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	SLDMWA and Reclamation	Field verification	Prior to construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	identified within the construction footprint during the surveys or afterwards, they will be inspected and closed using the following methodology:			
	• 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.			
	<ul> <li>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.</li> </ul>			
	<ul> <li>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.</li> </ul>			
TERR-14	<b>Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp.</b> 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

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification			
TERR-15	<b>Construction Contractor Environmental Awareness Training and Site</b> <b>Protection Measures</b> . 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 implemented to protect these species. A qualified biologist will be present on the site at all times during construction.	SLDMWA Field and verification Reclamation	SLDMWA Field Pric and verification dur Reclamation con	SLDMWA and Reclamation	Field verification	SLDMWA Field Prior to an und verification during construction	Prior to and during construction
	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.						
	Nighttime vehicle traffic will be kept to a maximum speed of 15 miles per hour on unpaved roads.						
	To minimize disturbance to wildlife, temporary and permanent exterior lighting will be installed such that:						
	<ul> <li>Lamps and reflectors are not visible from beyond the project site</li> </ul>						
	Reflective glare will be minimized to the extent feasible						
	Illumination of the project and its immediate vicinity is minimized						
	<ul> <li>Lighting will incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated</li> </ul>						
	<ul> <li>All lighting will be of minimum necessary brightness consistent with operational safety and security</li> </ul>						

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	• 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
	<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.			
	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.			
	<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.			
	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			

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	to compensate for wetland losses resulting from the project consistent with the USACE's no net loss policy.			
	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 project construction. Creek banks will be recontoured to a more stable condition if necessary.			
	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.			
	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.			
	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.			

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	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.			
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	<b>Complete Cultural Resource Evaluation Efforts.</b> 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	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
	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</i> <i>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 evaluation. A technical report detailing evaluation efforts will be produced and forwarded to the California Historic Resources Information System (CHRIS).			
CR-2	<b>Implement Avoidance or Mitigation Measures.</b> 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	SLDMWA and Reclamation	Documentation on file with Reclamation	Prior to and during construction

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	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.			
CR-3	<b>Implement a Detailed Inadvertent Discovery Plan.</b> 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 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.	SLDMWA and Reclamation	Documentation on file with Reclamation	Prior to and during construction
NEPA Only Cultural Mitigation Measures	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.	Reclamation	Documentation on file with Reclamation	Following congressional authorization

Measure No.	Mitigation Measure	Responsible Party	Method of Verification	Timing of Verification
	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.			
	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 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  $PM_{10}$  – 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/mer ced.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: <u>https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline</u>
- 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: <u>https://www.fws.gov/ventura/docs/species/protocols/sjkf/sanjoaquinkitfox\_protection.p</u> <u>df</u>
- --- .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.

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

**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 2020<sup>1</sup>.

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

<sup>&</sup>lt;sup>1</sup> 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.
B.F. Sisk Dam Raise and Reservoir Expansion Project Final Environmental Impact Report/Supplemental Environmental Impact Statement

## **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

## **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

- 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
- 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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