

CEQA DECISIONS REGARDING THE CALIFORNIA AQUEDUCT MILEPOST  
230.6 TO 231.4 INVESTIGATION, DESIGN, AND REPAIR FINAL MITIGATED  
NEGATIVE DECLARATION  
SCH # 2022030757

**A. CONSIDERATION AND ADOPTION OF THE MITIGATED NEGATIVE DECLARATION**

If, after review and consideration of the Mitigated Negative Declaration (MND) for the California Aqueduct Milepost 230.6 To 231.4 Investigation, Design, and Repair (Project) attached as **Exhibit A**, you decide that DWR can certify that the MND complies with the California Environmental Quality Act (CEQA), you should indicate the following decision by consideration and adoption in accordance with State CEQA Guidelines Section 15074.

I certify that the MND has been completed in compliance with CEQA, that DWR is the lead agency for the MND, that the MND was presented to me in my capacity as DWR's decision-maker, and that the MND reflects DWR's independent judgment and analysis. I have reviewed and considered the information contained within the MND prior to approval of the Project.

By: Jerry Snow  
Jerry Snow,  
Environmental Assessment Manager  
Department of Water Resources

Date: 7/28/2022

**B. ADOPTION OF FINDINGS AND MITIGATION MONITORING AND REPORTING PROGRAM;  
APPROVAL OF THE PROJECT; AND EXECUTION OF THE NOTICE OF DETERMINATION**

If you determine that the MND complies with CEQA and have certified this above and desire to move forward with the Project, you should adopt the Findings in **Exhibit A**, and the Mitigation Monitoring and Reporting Program, attached as **Exhibit B**; approve the project pursuant to CEQA; and authorize the execution and filing of the Notice of Determination, attached as **Exhibit C**.

I have determined to move forward with the Project as described in the MND. The MND identifies potentially significant effects from the Project, all of which will be avoided or substantially lessened with implementation of all feasible mitigation measures. Therefore, I adopt the Findings, attached as **Exhibit A**, in order to meet CEQA requirements. To the extent that the Findings conclude that various mitigation measures are feasible for the Project and within DWR's responsibility and jurisdiction, I direct DWR to implement these measures, thereby incorporating them as part of the Project.

**1. Mitigation Monitoring and Reporting Program**

*State CEQA Guidelines Section 15091 (d) states that the lead agency "...shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects."*

DWR has prepared a Mitigation Monitoring and Reporting Program for the Project, attached as **Exhibit B**, that meets CEQA requirements. Therefore, I adopt **Exhibit B**.

**2. Project Approval and Execution of the Notice of Determination**

State CEQA Guidelines Section 15075 states:

- (a) The lead agency shall file a notice of determination within five working days after deciding to carry out or approve the project. For projects with more than one phase, the lead agency shall file a notice of determination for each phase requiring a discretionary approval.*

I have determined that DWR has eliminated or substantially lessened all significant effects of the Project on the environment to the extent feasible as shown in the findings attached as **Exhibit A**.

Therefore, after considering the MND, including all issues raised by commenters during preparation of the Draft MND and in conjunction with adopting the Findings attached as **Exhibit A** and the Mitigation Monitoring and Reporting Program attached as **Exhibit B**, I approve the California Aqueduct Milepost 230.6 To 231.4 Investigation, Design, and Repair Project as described in the MND.

As required under State CEQA Guidelines, Section 15094, I further direct DWR staff to complete, execute, and file the Notice of Determination, attached as **Exhibit C**, with the State Clearinghouse, Governor's Office of Planning and Research within five (5) business days of this decision to approve the project and to pay any necessary Department of Fish and Wildlife filing fees at the time of filing the Notice of Determination.

By: Jerry Snow  
Jerry Snow,  
Environmental Assessment Manager  
Department of Water Resources

Date: 7/28/2022

Attachments:

Exhibit A MND and Findings  
Exhibit B Mitigation Monitoring and Reporting Program  
Exhibit C Notice of Determination

Exhibit A

FINAL MITIGATED NEGATIVE  
DECLARATION

CALIFORNIA AQUEDUCT MILEPOST 230.6 TO  
231.4 INVESTIGATION, DESIGN, AND REPAIR

State Clearing House No. 2022030757



*Prepared by*

California Department of Water Resources

July 2022





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## **Introduction**

DWR prepared an Initial Study (IS) and proposed Mitigated Negative Declaration (MND) and filed a notice of intent to adopt an MND with the State Clearinghouse on March 30, 2022. The IS and proposed MND were circulated for public and agency comment from March 30, 2022, to April 28, 2022. DWR received one written letter commenting on the IS and proposed MND.

DWR reviewed and prepared the IS and the proposed MND, which analyzes all the Project's potential environmental impacts. The IS identified potential significant effects on the environment. Revisions in the proposed project plans that would avoid or mitigate the effects to a point where clearly no significant effects would occur were made prior to public review of the proposed MND. Mitigation measures were included in the project to avoid potentially significant effects on the environment.

Based on review of the IS, proposed MND, and comments received on the proposed MND, this Final MND was prepared. The Final MND incorporates the IS, proposed MND, and comments received on the MND/responses to comments. Clarifying language and edits were made to mitigation measures based on comments received. Two mitigation measures were added to amplify existing measures and add more specificity. The Final MND does not identify any new significant avoidable effects that require project revisions to reduce the effect to insignificance.



## Final Mitigated Negative Declaration

**PROJECT:** Milepost 230.6 TO 231.4 Study, Design, Repair

**CEQA LEAD AGENCY:** California Department of Water Resources (DWR)

**AVAILABILITY OF DOCUMENTS:** The Initial Study and proposed Mitigated Negative Declaration was made available throughout the 30-day public review on the California Department of Water Resource's website, [www.water.ca.gov](http://www.water.ca.gov) and the CEQAnet web portal <https://ceqanet.opr.ca.gov/>. The Final Mitigated Negative Declaration and all supporting materials will be available, by request, at DWR's South Central Region Office, 3374 E. Shields Ave., Fresno.

**PROJECT LOCATION:** The project area is located on the California Aqueduct, approximately four miles south of the town of Buttonwillow; Kern County, California. DWR currently plans to repair the embankment on both sides of the Aqueduct, in Pool 27, from MP 230.7 to 231.05 and MP 231.2 to 231.44. DWR would also conduct geotechnical investigations and liner raises on both sides of the Aqueduct.

**PROJECT DESCRIPTION:** The proposed project is investigation and maintenance of the State Water Project. DWR proposes to investigate, design, permit, and implement the following repairs to restore the California Aqueduct. The Project would include the following:

- Conduct geotechnical exploration to determine soil behavior types, weak areas, and soil moisture contents.
- Reinforce approximately 1.18 miles of Aqueduct embankment to improve soil structure and reduce seepage.
- Restore the embankment to the design elevation to reduce risk of overtopping.
- Repair any damage to the Aqueduct liner to prevent seepage.
- Raise approximately 1.44 miles of Aqueduct liner to design elevation to prevent seepage and erosion.
- Reconstruct the road on top of the restored embankment to restore access.

**FINDINGS:** An initial study/proposed mitigated negative declaration (IS/proposed MND) has been prepared to assess the proposed project's potential effects on the physical environment and the significance of those effects. Based on the analysis conducted in the IS, it has been determined that implementing the proposed project would not have any significant adverse effects on the environment after adoption and implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no impact on agriculture and forestry resources, land use and planning, mineral resources, population and housing, recreation, and wildfire.
2. The proposed project would have a less-than-significant impact on aesthetics, energy, noise, public services, transportation, and utilities and service systems.

3. The proposed project would have a less-than-significant impact, with mitigation measures adopted and implemented, on air quality, biological resources, cultural resources, greenhouse gas emissions, geology and soils, hazards and hazardous materials, hydrology and water quality, and tribal cultural resources.
4. The proposed project would not have any mandatory findings of significance with mitigation incorporated, as the project would not have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.
5. The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
6. The proposed project would not have possible environmental effects that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
7. The environmental effects of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.
8. The proposed project incorporates all mitigation measures listed below and described in the IS. Some mitigation measures proposed in the IS, however, have been clarified or modified based on input received from commenting agencies, California Department of Fish and Wildlife. In all cases the revised mitigation measures (shown with underline) are equivalent or more effective in mitigating or avoiding potentially significant effects than the mitigation measures included in the IS/Draft MND and they will not themselves cause or contribute to any potentially significant effect on the environment.

**MITIGATION MEASURES:** The following mitigation measures will be implemented by DWR as part of the project to avoid, minimize, rectify, reduce or eliminate, or compensate for potentially significant environmental impacts. Implementation of these mitigation measures would reduce the potentially significant environmental impacts of the proposed project to less-than-significant levels:

#### **AQ-1: California Air Resources Board Equipment Restrictions**

To reduce the potential for criteria air pollutants, specifically oxides of nitrogen (NO<sub>x</sub>), as a result of construction of the Project, the construction contractor's contract specifications shall require all emissions to stay below SJVAPCD annual thresholds. Adherence to the emission standards may include, but is not limited to the following:

Prior to the start of construction activities, the construction contractor shall ensure that all 75 horsepower or greater diesel-powered equipment comply with California Air Resources Board (CARB)-certified Tier 4 emissions standards for off-road diesel engines.

An exemption from this requirement may be granted by the Air Pollution Control Officer if (1) the County documents equipment with Tier 4 Final engines are not reasonably available, and (2) other construction methods or combinations of equipment can achieve a reduction in criteria air pollutant emissions such that construction emissions would not exceed SJVAPCD significance thresholds.

### **BIO-1A: Avoid and Minimize Effects to Special-status Plants.**

Within 1 year before the commencement of ground-disturbing activities, habitat assessment surveys for special-status plants would be conducted by a qualified botanist, in accordance with the most recent USFWS and CDFW guidelines and at the appropriate time of year when the target species would be in flower or otherwise clearly identifiable. Survey results can be climate dependent; survey timing would be coordinated with USFWS and CDFW.

Locations of special-status plant populations would be clearly identified in the field by staking, flagging, or fencing a minimum 50-foot-wide buffer around them before the commencement of activities that may cause disturbance. No activity shall occur within the buffer area if feasible. If encroachment within the buffer is required, USFWS and/or CDFW would be consulted to determine appropriate compensation measures for the loss of special-status plants. Worker awareness training and biological monitoring would be conducted to ensure that avoidance measures are being implemented.

### **BIO-1B: Minimize Effects to Special-status Plants.**

In order to preserve the existing seedbank the topsoil will be saved for use later. During grading, the top few inches of soil will be scraped into a spoil pile in an approved location, such as the staging area. The spoil pile will be protected from erosion throughout the duration of the Project. At the completion of the embankment repair and recontouring, the topsoil will be evenly distributed within the Project area.

### **BIO-2: Minimize Effects to All Special-status Species.**

DWR would conduct a Worker Environmental Awareness Program (WEAP) prior to the start of construction. A qualified biologist would conduct a presentation on all potential special-status species to train all construction staff that will be involved with the project. This training would include:

- A description of special-status species and their habitat needs.
- Information on special-status species occurrence within the project vicinity.
- An explanation of the status of the species and their protection under the Endangered Species Act.
- A list of the measures being taken to reduce impacts to the species during construction, such as:
  - Project-related vehicles will observe a daytime speed limit of 15 mph throughout the site in all project areas, except on State and Federal highways. Night-time

work, such as equipment maintenance, will be minimized to the extent possible. However, if work does occur after dark, the speed limit will be reduced to 10 mph.

- Off-road project-related construction traffic outside of designated the project area will be prohibited. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in securely closed containers and removed at least once a day from a construction or project site.
- No firearms will be permitted on the Project site.
- No pets will be permitted on the Project site.
- Use of rodenticide in the Project area will not be allowed.
- A “fact sheet” conveying all training information prepared and distributed to all construction personnel in attendance at the initial training.

On completion of the WEAP training, construction crews would sign a form stating that they attended the training, understood the information presented, and would comply with the WEAP requirements.

### **BIO-3: Avoid Effects to Burrowing Owl.**

Preconstruction surveys for burrowing owls would be conducted by a qualified biologist in areas supporting potentially suitable habitat and within 30 days before the start of construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site would be resurveyed.

Occupied burrows would not be disturbed during the breeding season (February 1 through August 31), if feasible. A minimum 160-foot-wide buffer would be placed around occupied burrows during the nonbreeding season (September 1 through January 31), and a minimum 650-foot-wide buffer would be placed around occupied burrows during the breeding season. Ground-disturbing activities would not occur within the designated buffers, if feasible.

### **BIO-4: Minimize Effects to Burrowing Owl.**

If potential burrowing owl burrows are located in the project area, burrows would be confirmed empty and excavated prior to their breeding season. The use of one-way doors may be used at burrow entrances as a precaution.

If occupied burrowing owl burrows cannot be avoided during ground disturbing activities, they would be relocated in accordance with CDFW’s Staff Report on Burrowing Owl Mitigation (CDFG 2012).

If feasible the relocation would be done during the non-breeding season. A qualified biologist would verify through noninvasive methods that owls have not begun egg-laying and incubation, or that juveniles from occupied burrows are foraging independently and are capable of independent survival, a plan shall be coordinated with CDFW to offset burrow habitat and foraging areas on the project site if burrows and foraging areas are taken by the proposed project.

If destruction of occupied burrows occurs, existing unsuitable burrows would be enhanced (enlarged or cleared of debris), the purchase of mitigation credits, or new burrows created at a 1:1 ratio. This would be done in consultation with CDFW.

Passive owl relocation techniques would be implemented during non breeding season or after confirming the absence of eggs and juveniles as mentioned above. Owls would be excluded from burrows in the immediate impact zone within a 160-foot-wide buffer zone by installing one-way doors in burrow entrances. These doors would be in place at least 48 hours before excavation to ensure the owls have departed.

The project area would be monitored daily for 1 week to confirm owl departure from burrows before any ground- disturbing activities.

Where possible, burrows would be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe would be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

#### **BIO-5: Avoid Effects to Special-Status Small Mammals.**

Prior to project activities, a qualified biologist would identify and map potential small mammal burrows and burrow complexes within the project footprint. Where burrows and complexes are present, a 50-foot-wide buffer shall be placed to avoid and minimize disturbance to the species.

If encroachment within a buffer is required, USFWS and CDFW would be consulted. If complete avoidance that would ensure no-net-loss of burrows potentially occupied by a listed species is infeasible, the project proponent shall immediately contact CDFW habitat and USFWS regarding incidental take permits and may include purchasing credits at a mitigation bank at a minimum 1:1 ratio.

#### **BIO-6: Minimize Effects to Special-Status Small Mammals.**

Before the start of project activities, approved exclusion fencing would be installed just outside the work limit. This fencing would be maintained throughout construction and would be removed at the conclusion of ground-disturbing activities. No vehicles would be allowed beyond the exclusion fencing. A USFWS- and CDFW-approved biological monitor would be present on site, during intervals recommended by USFWS and CDFW, to inspect the fencing.

The approved biological monitor would be on site each day during any ground disturbance and during initial site grading or development of sites in suitable habitat for special-status small mammals.

Before the start of work each day, the biological monitor would check for animals under any equipment to be used that day, such as vehicles or stockpiles of items such as pipes. If special-status small mammals are present, they would be allowed to leave on their own, before the initiation of construction activities for the day. To prevent inadvertent entrapment of special-status small mammals during construction, all excavated, steep-walled holes or trenches more

than 1 foot deep would be covered by plywood or similar materials at the close of each working day or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.

Plastic monofilament netting (erosion control matting) or similar material shall not be used at the project site because special-status small mammals may become entangled or trapped. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

#### **BIO-7: Compensate for Temporary or Permanent Loss of Special-Status Small Mammals Habitat.**

If special-status kangaroo rat and San Joaquin antelope squirrel habitat would be affected by the proposed project, a compensatory mitigation plan would be developed and implemented in coordination with USFWS and CDFW, as appropriate. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent.

If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures would be included in and developed as part of the USFWS and CDFW coordination and consultation process. The plan would include information on responsible parties for long-term management, holders of conservation easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations.

#### **BIO-8: Avoid Effects to San Joaquin Kit Fox.**

A qualified biologist would conduct pre-construction surveys no fewer than 14 days and no more than 30 days prior to the onset of any ground disturbing activity. The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) on the project site. If San Joaquin kit fox are detected at any time, all activities associated with the project would be halted immediately. The project would be placed on hold until consultation with the USFWS and CDFW is completed. Where potential dens are present, a 50-foot-wide buffer shall be placed to avoid and minimize disturbance to the species. Where known dens are present a 100-foot-wide buffer shall be placed to avoid and minimize disturbance to the species.

If natal pupping dens are present or encroachment within a buffer is required, USFWS and CDFW would be consulted with to determine appropriate compensation measures for the loss of San Joaquin kit fox. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent.

#### **BIO-9: Minimize Effects to San Joaquin Kit Fox.**

Project activities would be carried out in a manner that minimizes adverse effects to San Joaquin kit foxes, should they occur in the project area. Minimization measures would include:

- Construction work at night (half hour after sunset to half-hour before sunrise) will be avoided to the maximum extent possible.

- To prevent inadvertent entrapment of San Joaquin kit fox or other animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the end of each workday. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks will be installed. Before such holes or trenches are filled, they will be inspected for trapped animals.
- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly inspected for San Joaquin kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a San Joaquin kit fox is discovered inside a pipe, that section of pipe will not be moved until USFWS has been consulted and CDFW contacted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
- Before the start of work each day, the work site will be checked for animals under any equipment to be used that day, such as vehicles or stockpiles of items such as pipes. If a San Joaquin kit fox is found, it will be allowed to leave on its own volition. Work will be halted, and DWR contacted. USFWS and CDFW will be notified within 48 hours.
- Sightings of San Joaquin kit fox will be reported to the California Natural Diversity Data Base.

#### **BIO-10: Compensate for Temporary or Permanent Loss of San Joaquin Kit Fox Habitat.**

If San Joaquin kit fox habitat would be affected by the proposed project, a compensatory mitigation plan would be developed and implemented in coordination with USFWS and CDFW, as appropriate. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio.

If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures would be included in and developed as part of the USFWS and CDFW coordination and consultation process. The plan would include information on responsible parties for long-term management, holders of conservation easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations.

#### **BIO-11: Avoid Effects to Blunt-nosed Leopard Lizard.**

No more than 12 months prior to geotechnical investigations and construction activities, a habitat assessment of the project footprint would be conducted by a qualified biologist in suitable habitat for the blunt-nosed leopard lizard to identify all habitat suitable for the lizard in the project footprint. Within twelve months prior to any ground-disturbing activity, qualified biologists would conduct surveys for blunt-nosed leopard lizard in blunt-nosed lizard suitable habitats (e.g., areas containing burrows) within the Project area. These surveys would be conducted in accordance with the Approved Survey Methodology for the Blunt-Nosed Leopard Lizard (CDFW 2019), or other more recent guidelines, if available. In instances where blunt-nosed leopard lizards are observed at any time during presence/absence surveys, pre-

construction surveys, or construction monitoring, USFWS and CDFW would be notified of the occurrence within two business days.

#### **BIO-12: Avoid Effects to American Badger.**

Preconstruction surveys by a qualified biologist would be conducted in areas supporting potentially suitable habitat and within 30 days before the start of construction activities.

Occupied burrows would not be disturbed, if feasible. A 100-foot no-work buffer would be established around occupied maternity dens throughout the pup-rearing season (February 15 through July 1) and a 50-foot no-work buffer around occupied dens during other times of the year. If nonmaternity dens are found and cannot be avoided during construction activities, they will be monitored for badger activity. If a qualified biologist determines that dens may be occupied, passive den exclusion measures will be implemented for three to five days to discourage the use of these dens prior to project disturbance activities.

#### **BIO-13: Minimize Effects to American Badger.**

If an occupied burrow/den cannot be avoided, the individual shall be passively relocated by exclusion. Passive relocation techniques would be implemented. Relocation shall only occur outside of the breeding period of American badger.

The project area would be monitored daily for 1 week to confirm badger departure from burrow before any ground- disturbing activities.

Where possible, burrows would be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe would be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

A plan shall be coordinated with CDFW to offset burrow habitat and foraging areas on the project site if burrows and foraging areas are taken by the proposed project.

#### **BIO-14: Avoid and Minimize Effects to Migratory Bird Species.**

If work activities occur within the bird nesting season (generally defined as February 1 through September 1), a qualified biologist shall conduct a nesting bird survey no more than 14 days prior to initiation of ground disturbance. Survey areas will reflect the species type such as 300 feet for general songbird, 500 feet for raptors, and a quarter of a mile for listed raptor species. The survey shall be limited to areas with permitted access and shall not be conducted on private property without prior authorization. These surveys would be conducted in accordance with any required protocols.

If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged, as determined by a qualified biologist. Construction buffers shall be determined by a qualified biologist based on the location of the nest, species tolerance to human presence, and the type



of construction activities being conducted. Typical buffers include 50-150 feet for passerines. Larger buffers may be required for species that are less tolerant to disturbances, such as raptors and special-status species. Activities requiring heavy equipment that generate ground vibrations and acute noises may require larger buffers, whereas finish work, such as electrical or manual work with hand tools may require a smaller buffer to adequately protect bird nests.

If encroachment within a buffer is required, USFWS and CDFW would be consulted with to determine appropriate measures for avoidance and minimization of potential impacts. Mitigation may include presence of an on-site biologist to monitor nests during construction activities within buffers. If birds exhibit signs of stress or leave the nest for an extended period of time, construction within the buffer would halt until birds have fledged or an alternative strategy can be determined.

### **BIO-15: Avoid and Minimize Effects to All Special Status Species and Resources.**

Preconstruction surveys for all special status, rare, and endemic species and sensitive resources would be conducted by a qualified biologist within 30 days before the start of construction activities. If the optimal survey period for the species lies outside of the 30-day period, a focused survey will be conducted specific to the species. Appropriate no work buffers will be established around detections or the species or resource, if feasible.

### **CUL-1: Archaeological Discovery Procedures**

Should any unexpected cultural resources be exposed during project activities, all work would temporarily stop in the immediate vicinity (e.g. 100 feet) of the find until it can be evaluated by a qualified archaeologist and an appropriate plan of action can be determined in consultation with DWR.

If the resource is associated with Native American contexts or is a potential Tribal Cultural Resource and is within a region specified as an area of interest/concern by a consulting tribe/tribes, the appropriate consulting tribal entity/entities would be contacted and consulted with to produce an appropriate plan of action.

### **CUL-2: Health and Safety During a Discovery**

Should human remains be discovered during the course of project activities, all work would stop immediately in the vicinity (e.g. 100 feet) of the finds until they can be verified. The coroner would be contacted in accordance with Health and Safety Code section 7050.5(b). Protocol and requirements outlined in Health and Safety Code sections 7050.5(b) and 7050.5(c) as well as Public Resources Code section 5097.98 will be followed.

### **CUL-3: Prepare and Implement Cultural Awareness Training**

Prior to project construction, a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, in coordination with culturally affiliated California Native American Tribes, shall develop a Cultural Resources Awareness and Sensitivity Training Program for all construction and field workers involved in project ground-disturbing activities. The program shall include a presentation that covers, at a minimum, the types of cultural resources common to the area, regulatory protections for cultural resources, and the protocol for

unanticipated discovery of archaeological resources (see Mitigation Measure CUL-2). Personnel working in areas of project ground-disturbing activities shall receive the training prior to working in these areas.

### **GEO-1: Prepare and Implement a Storm Water Pollution Prevention Plan.**

DWR shall obtain coverage under the State Water Resources Control Board's National Pollutant Discharge Elimination System stormwater permit for general construction activity (Order 2009-0009-DWQ). If applicable, a project specific Storm Water Pollution Prevention Plan (SWPPP) would be prepared and submitted at the time the notice of intent to discharge is filed. If the project does not require the creation of a SWPPP under the CGP, a Water Quality Control Plan (WQCP) written by a Qualified Stormwater Developer and will be submitted by the contractor. The SWPPP/WQCP would identify and specify the following details:

- the use of an effective combination of robust erosion and sediment control BMPs for use on the project site at the time of construction that would reduce the potential for runoff and the release, mobilization, and exposure of pollutants from project-related construction sites (may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, check dams, and silt fences);
- the pollutants likely to be used during construction that could be present in stormwater runoff and those that could be present in the dredged sediments;
- spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;
- the means of waste disposal;
- personnel training requirements and procedures that would be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and
- the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.

Where applicable, BMPs identified in the SWPPP/WQCP shall be in place throughout all site work and construction activities. BMPs may include but would not be limited to the following measures:

- Implement temporary erosion and sediment control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances, in compliance with state standards in effect at the time of construction. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation.
- Establish permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration.
- Use drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways used to transport sediment.

A copy of the approved SWPPP/WQCP shall be available at all times on the construction site.

## **GEO-2: Paleontological Sensitivity Training**

Prior to any ground disturbing activities associated with the proposed Project, DWR shall retain and direct a Qualified Paleontologist, to prepare a paleontological resources awareness and sensitivity training program for all personnel involved in construction-related field activities. The training program shall include a presentation that covers, at a minimum, the types of paleontological resources that may be encountered, regulatory protections for paleontological resources, and of the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources (see Mitigation Measure GEO-3). The Qualified Paleontologist, or their designee, shall present the training at the initial kickoff or tailgate meeting. Subsequent trainings shall be given on an as-needed basis as new construction personnel join the project. DWR shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

## **GEO-3: Unanticipated Discoveries of Paleontological Resources**

In the event of the unanticipated discovery of paleontological resources at the proposed Project, DWR or its contractor shall immediately cease all work activities in the area (within approximately 100 feet) of the discovery until it can be assessed for significance by the Qualified Paleontologist. The Qualified Paleontologist shall assess the find, implement recovery and reporting measures, if necessary, and determine if paleontological monitoring is warranted once work resumes.

## **GHG-1: Green House Gas Reductions**

Green House Gas reduction best management practices, as applicable:

- Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.
- Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on- road engines.
- Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.
- Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.
- Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.
- Limit deliveries of materials and equipment to the site to off peak traffic congestion hours.
- Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the state airborne toxics control measure, California Code of Regulations, Title 13, Section 2485). Provide clear signage that posts this requirement

for workers at the entrances to the site and provide a plan for the enforcement of this requirement.

- Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction.
- Implement a tire inflation program on the job site to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Management Plan prior to commencement of construction.
- Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.
- For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box-type trailer is used for hauling, a SmartWay2 certified truck would be used to the maximum extent feasible.
- Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate.
- Develop a project specific construction debris recycling and diversion program to achieve a documented 50 percent diversion of construction waste.
- Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution minimize, to the extent possible, uses of public roadways that would increase traffic congestion.

## **HYD-1: Water Quality Best Management Practices**

Since project construction activities would disturb an area greater than an acre, the project would be subject to a Construction General Permit under the NPDES permit program of the federal Clean Water Act. As required under the Construction General Permit, DWR or its contractor would prepare and implement a SWPPP. If a SWPPP is not required under the Construction General Permit, the contractor would prepare a Water Quality Control Plan. The objective of a SWPPP/WQCP is to identify pollutant sources (such as sediment) that may affect the quality of storm water discharge and to implement BMPs to reduce pollutants in storm water.

Erosion control BMPs would be used to prevent the degradation of water quality. Examples of erosion control BMPs are installing a silt fence, using fiber rolls, creating gravel bag berms, and creating sandbag or straw bale barriers. BMPs would also include practices for proper handling of chemicals, such as fueling away from waterways and overtopping during fueling, and installation of containment pans. Further, implementation of the construction BMPs would begin with the commencement of construction and continue through the completion of the project.

During subsurface exploration, no equipment would be allowed to drip oil or fluids onto the

ground. Visqueen or a similar type of plastic sheeting would be placed under any leaky or potentially leaky equipment to prevent contact with the ground. Any contaminated soil or rock resulting from leaking equipment would be removed.

Straw wattles, berms, and visqueen would be used to control any runoff from exploration operations or precipitation during exploration.

### **TCR-1: Tribal Monitoring**

A tribal monitor would be considered during the initial ground-disturbing activities of the project and in other instances as determined by DWR. The tribal monitor may be selected by the consulting tribe (s). If, during the course of ground- disturbing activities, the tribal monitor identifies a potential TCR, work in the immediate area would halt until the find is assessed by the monitor and a qualified archaeologist. An appropriate plan of action would be determined in consultation with DWR.

## **Adoption of Final Mitigated Negative Declaration and Approval of Proposed Project**

### **Certification by Those Responsible for Preparation of This Document:**

The California Department of Water Resources (DWR), as lead agency, was responsible for preparation of this Final Mitigated Negative Declaration and the incorporated Initial Study. I believe this document meets the requirements of the California Environmental Quality Act and provides an accurate description of the California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, And Repair Project (proposed project), and that DWR has the means and commitment to implement the mitigation measures to assure that the proposed project would not cause any significant impacts on the environment. In accordance with Section 21082.1 of the California Environmental Quality Act, DWR staff, including myself, have independently reviewed and analyzed the Initial Study and the Final Mitigated Negative Declaration for the proposed project and find that the Initial Study and Final Mitigated Negative Declaration reflect the independent judgment of DWR staff. Furthermore, I have reviewed and considered all comments received during the public comment period for the document.

I hereby adopt this Final Mitigated Negative Declaration:

Jerry Snow  
Jerry Snow, Environmental Assessment Manager  
California Department of Water Resources

7/28/2022

Date

*(\*To be signed on completion of the public review process and consideration of all public comments and the whole of the administrative record.)*

### **Approval of the Proposed Project by the Lead Agency:**

In compliance with Section 21082.1 of the California Environmental Quality Act, the California Department of Water Resources (DWR) has independently reviewed and analyzed the Initial Study and Final Mitigated Negative Declaration for the proposed project and finds that they reflect the independent judgment of DWR staff. The lead agency finds that the project design features would be implemented as stated in the Final Mitigated Negative Declaration.

I hereby approve this project:

Jerry Snow  
Jerry Snow, Environmental Assessment Manager  
California Department of Water Resources

7/28/2022

Date

*(\*To be signed on completion of the public review process and consideration of all public comments and the whole of the administrative record.)*

## Comments Received and Responses to Comments

In accordance with the State CEQA Guidelines, Chapter 14, Section 15074(b) of the California Code of Regulations, before approving the project, Department of Water Resources (DWR), as the lead agency under CEQA, will consider the IS/proposed MND with any comments received during the review period.

Only one comment letter was received from California Fish and Wildlife (CDFW), Region 4 on May 9, 2022. The letter was in response to the draft mitigated negative declaration, California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, and Repair Project.

The letter's content has been separated and given numeric classifications in order to address all comments with responses.

## Responses to Comments

### Comment CDFW 1

The comment states the following:

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

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

DWR's response:

DWR acknowledges CDFW as a Trustee and Responsible Agency under CEQA and CESA. However, CDFW does not have authority as a Responsible Agency under 1600 code for this project. The Project does not consist of a bed, bank, or channel and does not result in substantially changing the function of the mentioned features. Therefore, it is not subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.).

## Comment CDFW 2

The comment states the following:

### *Fully Protected Species:*

*CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515, respectively. Take of any fully protected species is prohibited and CDFW cannot authorize their incidental take for the Project.*

DWR's response:

DWR will fully avoid and minimize impacts to fully protected species. Avoidance measures such as conducting full protocol level surveys within 12 months of Project activities will be conducted. If fully protected species are detected at or in the vicinity of the Project all activities will cease immediately. DWR will enter into consultation with CDFW.

## Comment CDFW 3

The comment states the following:

### *Bird Protection:*

*CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird).*

DWR's response:

DWR acknowledges the following regulations: Fish and Game Code sections 3503, 3503.5, and 3513. DWR conducted avian surveys at the project site in 2018 as well as multiple site assessments from 2016 through 2022. Nesting sites were not confirmed in the area. A list of species observed can be found on page 48, Section 9.4 of the MND.

DWR will implement Mitigation Measure BIO-14 which states:

If work activities occur within the bird nesting season (generally defined as February 1 through September 1), a qualified biologist shall conduct a nesting bird survey no more than 14 days prior to initiation of ground disturbance. Survey areas will reflect the species type such as 300 feet for general songbird, 500 feet for raptors, and a quarter of a mile for listed raptor species. The survey shall be limited to areas with permitted access and shall not be conducted on private property without prior authorization. These surveys would be conducted in accordance with any required protocols.



If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged, as determined by a qualified biologist. Construction buffers shall be determined by a qualified biologist based on the location of the nest, species tolerance to human presence, and the type of construction activities being conducted. Typical buffers include 50-150 feet for passerines. Larger buffers may be required for species that are less tolerant to disturbances, such as raptors and special-status species. Activities requiring heavy equipment that generate ground vibrations and acute noises may require larger buffers, whereas finish work, such as electrical or manual work with hand tools may require a smaller buffer to adequately protect bird nests.

If encroachment within a buffer is required, USFWS and CDFW would be consulted with to determine appropriate measures for avoidance and minimization of potential impacts. Mitigation may include presence of an on-site biologist to monitor nests during construction activities within buffers. If birds exhibit signs of stress or leave the nest for an extended period of time, construction within the buffer would halt until birds have fledged or an alternative strategy can be determined.

#### Comment CDFW 4

The comment states the following:

*In particular, CDFW is concerned regarding potential impacts for the following special status wildlife species and habitats known to occupy the Project area: the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State and federally endangered Tipton kangaroo rat (*Dipodomys nitratoide nitratoide*); the State and federally endangered giant kangaroo rat (*Dipodomys ingens*); the State threatened Nelson's (=San Joaquin) antelope squirrel (*Ammospermophilus nelsoni*); the State and federally endangered and State fully-protected blunt-nosed leopard lizard (*Gambelia sila*); the State species of special concern burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), San Joaquin pocket mouse (*Perognathus inornatus*), short-nosed kangaroo rat (*Dipodomys nitratoide brevinasus*), and California glossy snake (*Arizona elegans occidentalis*); the federally endangered and California Rare Plant Rank (CRPR) 1B.2 Kern mallow (*Eremalche parryi* ssp. *kernensis*); the CRPR 1B.2 recurved larkspur (*Delphinium recurvatum*) and oil nestraw (*Stylocline citroleum*); and the CRPR 4.2 Hoover's eriastrum (*Eriastrum hooveri*). Suitable habitat for Crotch bumble bee (*Bombus crotchii*) occurs in the Project vicinity. Other species of birds, amphibians, reptiles, mammals, fish, and plants also compose the local ecosystem within the Project boundary. Valley saltbush scrub habitat is located in the Project vicinity.*

DWR's response:

Potential impacts to State and federally listed, threatened, endangered, or species of special concern will be less than significant with implementation of mitigation measures outlined in Section 9.4 of the MND. Specifically, Mitigation Measure BIO-1 through BIO-14 would avoid and minimize potential impacts to any wildlife in the area including special status species. DWR will implement Mitigation Measures BIO-1 through BIO-14 throughout the Project.

Comment CDFW 5

The comment states the following:

*Please note that the CNDDDB is populated by and records voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. In order to adequately assess any potential Project related impacts to biological resources, surveys conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present at or near the Project area.*

DWR's response:

Section 9.4, pages 50 through 55 of the MND addresses special status species and their likelihood to occur in the project area. The likelihood was based on habitat present and species presence or absence during biological surveys. DWR has been conducting surveys such as habitat assessments and species specific throughout the project area from 2016 through 2022. Additional survey data can be made available upon request.

Comment CDFW 6

The comment states the following:

*San Joaquin kit fox (SJKF)*

*Issues and Impacts: SJKF occurrences have been documented within the Project area (CDFW 2022), and the MND acknowledges presence of SJKF. Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). Kern County supports relatively large areas of high and medium suitability SJKF habitat (Cypher et al. 2013). The Project area is bordered by highly suitable habitat in an area that is otherwise under intensive agriculture.*

*SJKF den in rights-of-way, agricultural and fallow/ruderal habitat, dry stream channels, and canal levees, etc., and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). SJKF may be attracted to project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in fallow and agricultural fields and*

*utilize streams and canals as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the Project boundary and surrounding area. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with construction include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.*

DWR's response:

Section 9.4, pages 51 and 57 of the MND addresses SJKF, its presence, and measures to avoid and minimize potential impacts. DWR would implement Mitigation Measures BIO-2, BIO- 5, BIO-8, BIO-9 and BIO-10. In 2019, 11 camera stations were deployed over three weeks within the Project area. A SJKF was observed foraging in the area, but no active dens were detected. In 2022, DWR has begun assessing presence/absence of the species by identifying potential dens and examining for evidence of the species such as skat, prints, or prey item remains. DWR would place camera stations at identified dens to determine use.

If an active SJKF den is detected during assessment, surveys, or Project activities, CDFW and USFW would be consulted.

Comment CDFW 7

The comment states the following:

*Recommended Mitigation Measure 1: SJKF Surveys and Minimization*

*CDFW recommends assessing presence/absence of SJKF by having qualified biologists conducting surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the USFWS (2011) Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance during Project implementation.*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-8 states surveys will be conducted by a qualified biologist prior to construction. The recommended buffer of 500 feet will be taken into consideration. Also, Mitigation Measure BIO-9 incorporates standardized recommendations for the protection of SJFK. Both these mitigation measures will be implemented by DWR.

## Comment CDFW 8

The comment states the following:

### *Recommended Mitigation Measure 2: SJKF Take Authorization*

*SJKF activity or detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b). Alternatively, species presence may be assumed and an ITP obtained prior to Project implementation.*

DWR's response:

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

Section 9.4 of the MND, Mitigation Measure BIO-10 describes coordination with USFWS and CDFW if SJKF habitat is affected and the development of a compensatory mitigation plan. In addition, DWR will coordinate with CDFW and USFWS if SJKF activity or detections warrant consultation.

## Comment CDFW 9

The comment states the following:

### *Tipton Kangaroo Rat (TKR) and Giant Kangaroo Rat (GKR)*

*Issues and Impacts: The MND acknowledges presence of TKR and GKR in areas of suitable habitat within and adjacent to the Project (CDFW 2022). Suitable habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows.*

*Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to TKR and GKR. Very little suitable habitat for these species remains along the edges of the southern San Joaquin Valley floor (ESRP 2022a, ESRP 2022b). Areas of suitable habitat in the Project area along the California Aqueduct represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. Without appropriate avoidance and minimization measures for TKR and GKR, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.*

DWR's response:

Section 9.4, pages 50 and 57 of the MND addresses TKR and GKR, their presence, and measures to avoid and minimize potential impacts. DWR will

implement Mitigation Measures BIO-2, BIO-5, BIO-6, and BIO-7 to minimize and mitigate any impacts to small mammals, including TKR and GKR.

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

#### Comment CDFW 10

The comment states the following:

*Recommended Mitigation Measure 3: TKR and GKR Avoidance*

*CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances of suitable size for TKR and GKR use.*

DWR's response:

Section 9.4 of the MND, Mitigation Measure BIO- 5 requires a survey to map burrows and complexes by a qualified biologist. In addition, a 50-foot buffer would be placed around burrows and complexes of special-status small mammals. DWR has conducted a burrow density survey of the entire Project area in 2021 and 2022 and is conducting small mammal surveys in 2022.

#### Comment CDFW 11

The comment states the following:

*Recommended Mitigation Measure 4: TKR and GKR Surveys*

*Because suitable habitat for TKR and GKR is within the Project area, CDFW recommends that a trapping plan for determining presence of TKR and GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. CDFW recommends these surveys to be conducted by a qualified biologist who holds a Memorandum of Understanding for TKR and GKR. CDFW further recommends that these surveys be conducted between April 1 and October 31, when kangaroo rats are most active, and well in advance of ground-disturbing activities in order to determine if impacts to TKR and GKR could occur.*

DWR's response:

DWR acknowledges and agrees to the development and submittal of a trapping plan for determining presence of TKR and GKR. As part of a Memorandum of Understanding to trap for GKR and TKR a notification to trap is always issued for approval. DWR has begun working with and will continue coordination with CDFW and USFWS on a trapping plan for the Project.

## Comment CDFW 12

The comment states the following:

*Recommended Mitigation Measure 5: TKR and GKR Take Authorization*  
*TKR and GKR activity or detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b).*

DWR's response:

Section 9.4 of the MND, Mitigation Measure BIO-5 describes if activity occurs within the avoidance buffer for the species USFWS and CDFW will be consulted. DWR will implement Mitigation Measure BIO-5.

## Comment CDFW 13

The comment states the following:

*San Joaquin Antelope Squirrel (SJAS)*

*Issue and Impacts: The MND acknowledges presence, and SJAS have been documented within areas of suitable habitat in the Project vicinity (CDFW 2022). Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJAS. Very little suitable habitat for this species remains along the western floor of the San Joaquin Valley (ESRP 2022c). Areas of suitable habitat within the Project Area vicinity represent some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture, and ground-disturbing activities are anticipated during Project implementation. Without appropriate avoidance and minimization measures for SJAS, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.*

DWR's response:

Section 9.4, page 49 and 57 of the MND addresses SJAS, its presence, and measures to avoid and minimize potential impacts. DWR will implement Mitigation Measures BIO-2, BIO-5, BIO-6, and BIO-7, which would minimize and mitigate any impacts to small mammals, including SJAS.

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

## Comment CDFW 14

The comment states the following:

### *Recommended Mitigation Measure 6: SJAS Take Authorization*

*Because suitable habitat is present and SJAS is within and adjacent to the Project area, CDFW advises that avoidance of SJAS is not likely to be feasible. Therefore, in order to avoid costly delays to the project, CDFW advises that take authorization for SJAS be pursued and that acquisition of an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b) is warranted.*

DWR's response:

Section 9.4 of the MND, Mitigation Measure BIO-5 for special-status small mammals states:

If complete avoidance that would ensure no-net-loss of burrows potentially occupied by a listed species is infeasible, the project proponent shall immediately contact CDFW habitat and USFWS regarding incidental take permits and may include purchasing credits at a mitigation bank at a minimum 1:1 ratio.

## Comment CDFW 15

The comment states the following:

### *Blunt-Nosed Leopard Lizard (BNLL)*

*Issues and Impacts: The MND acknowledges a high potential for BNLL to occur within and adjacent to the Project due to species occurrence and suitable habitat documented within close proximity to the Project (CDFW 2022). Suitable BNLL habitat includes areas of grassland and upland scrub that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites and unpaved access roadways.*

*Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to BNLL (ESRP 2022d). The range for BNLL now consists of scattered parcels of undeveloped land within the valley floor and the foothills of the Coast Range (USFWS 1998).*

DWR's response:

Section 9.4, pages 52 and 58 of the MND addresses BNLL, their habitat, and measures to avoid and minimize potential impacts. DWR will implement Mitigation Measures BIO-2, and BIO-11.

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

#### Comment CDFW 16

The comment states the following:

*Recommended Mitigation Measure 7: BNLL Habitat Assessment*

*CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for BNLL.*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-11 describes a qualified biologist will conduct a habitat assessment of the Project footprint. DWR conducted a habitat assessment in 2016, 2017, 2018, 2021, and 2022.

#### Comment CDFW 17

The comment states the following:

*Recommended Mitigation Measure 8: BNLL Surveys*

*If suitable habitat is present, prior to initiating any vegetation- or ground-disturbance activities, CDFW recommends conducting surveys in accordance with the Approved Survey Methodology for the Blunt-nosed Leopard Lizard (CDFW 2019). This survey protocol is designed to optimize BNLL detectability. CDFW advises completion of BNLL surveys no more than one year prior to initiation of ground disturbance.*

*Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall, and that within these time periods, there are specific protocol-level date, temperature, and time parameters, which must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day "preconstruction surveys" often recommended for other wildlife species. In addition, the BNLL protocol specifies different survey effort requirements based on whether the disturbance results from maintenance activities or if the disturbance results in habitat removal (CDFW 2019).*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-11 describes protocol level surveys would be conducted for the species in areas where suitable habitat has been determined. DWR conducted full



protocol level surveys in 2016, 2017, and 2018. DWR is conducting full protocol surveys during 2022.

#### Comment CDFW 18

The comment states the following:

##### *Recommended Mitigation Measure 9: BNLL Take Avoidance*

*CDFW cannot authorize the Project-related incidental take of BNLL. BNLL detection during protocol level surveys warrants immediate consultation with CDFW to discuss whether take of BNLL can be avoided during Project activities.*

DWR's response:

DWR acknowledges and understands that BNLL is a fully protected species. Section 9.4 of the MND, Mitigation Measure BIO-11 describes where blunt-nosed leopard lizards are observed at any time during presence/absence surveys, pre-construction surveys, or construction monitoring, USFWS and CDFW would be notified of the occurrence within two business days.

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

#### Comment CDFW 19

The comment states the following:

##### *Crotch Bumble Bee (CBB)*

*Issues and Impacts: CBB have been documented to occur within the vicinity of the Project area (CDFW 2022). Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows, but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014, Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.*

*CBB was once common throughout most of the central and southern California; however, it now appears to be absent from most of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest*

*that there have been sharp declines in relative abundance of CBB by 98% and persistence by 80% over the last 10 years. Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality.*

DWR's response:

Section 9.4, page 53 of the MND addresses CBB and the potential for their presence. DWR would conduct preconstruction surveys for the species. DWR has not observed any bumble bees in the Project area during prior habitat assessment or as an ancillary observation during other focused surveys. DWR has observed, in an approximate five year period, a large quantity of bee boxes with active western honeybee (*Apis mellifera*) hives. The bee boxes are located outside of the right of way approximately 0.3 miles from the Project area. DWR will implement Mitigation Measure BIO-2 which describes environmental training will be given prior to any activities. The environmental training will include CBB.

Comment CDFW 20

The comment states the following:

*Recommended Mitigation Measure 10: CBB Surveys and Avoidance*

*CDFW recommends that all small mammal burrows and thatched/bunch grasses be surveyed for the species during the optimal flight period of April 1 through July 31 during the peak blooming period of preferred plant species prior to Project implementation. Avoidance of detected queens or workers is encouraged to allow CBB to leave the Project site of their own volition. Avoidance and protection of detected nests prior to or during Project implementation is encouraged with delineation and observance of a 50-foot no-disturbance buffer.*

DWR's response:

DWR added and will implement Mitigation Measure BIO-15 which describes conducting surveys for all special status, rare, and endemic species and sensitive resources. This includes CBB and their nests during the appropriate period. In the case a CBB nest is located, a 50 foot no work buffer would be established, if feasible.

## Comment CDFW 21

The comment states the following:

### *Burrowing Owl (BUOW)*

*Issues and Impacts: BUOW inhabit open grassland containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Habitat both within and bordering the Project supports grassland habitat. Potentially significant direct impacts associated with subsequent activities and land conversion include habitat loss, burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.*

*BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project boundary contains undeveloped land located adjacent to intensively managed agriculture; therefore, subsequent ground-disturbing activities associated with subsequent constructions have the potential to significantly impact local BUOW populations.*

DWR's response:

Section 9.4, pages 52, 56, and 57 of the MND addresses BUOW, their habitat, and measures to avoid and minimize potential impacts. BUOW have not been detected in the Project area; the nearest observations were a perched BUOW at MP 231.5 in 2017 and at MP 230.1 in 2021. DWR will implement Mitigation Measures BIO-2, BIO-3, and BIO-4.

DWR initiated communications in October 2019 with CDFW's Region 4 CESA staff regarding the Project. DWR plans to continue to communicate and work with staff throughout the Project.

## Comment CDFW 22

The comment states the following:

### *Recommended Mitigation Measure 11: BUOW Habitat Assessment*

*CDFW recommends that a qualified biologist conduct a habitat assessment in advance of implementation of Project-specific activities, to determine if the Project area or its vicinity contains suitable habitat for BUOW.*

DWR's response:

Section 9.4, page 52 and 56 of the MND addresses the presence of BUOW habitat. In 2018 and 2021, BUOW surveys were conducted in accordance with the 2012 Staff Report on Burrowing Owl Mitigation breeding season survey protocol in Appendix D (DFW 2012). Surveys to locate potential burrows and the presence of burrowing owl are being conducted currently through the 2022 season.

Comment CDFW 23

The comment states the following:

*Recommended Mitigation Measure 12: BUOW Surveys*

*If suitable habitat is present on or in the vicinity of the Project area, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993) and CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012). Specifically, these reports suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (i.e., April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a minimum 500-foot buffer around the Project area.*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. DWR will implement Mitigation Measure BIO-3, which states preconstruction surveys for the species will occur. Surveys to locate potential burrows and the presence of burrowing owl were conducted in 2021 and are being conducted currently through the 2022 season.

Comment CDFW 24

The comment states the following:

*Recommended Mitigation Measure 13: BUOW Avoidance*

*CDFW recommends that no-disturbance buffers, as outlined in the Staff Report on Burrowing Owl Mitigation (CDFG 2012), be implemented prior to and during any ground-disturbing activities, and specifically that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.*

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

\* meters (m)

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-3 describes occupied burrows would not be disturbed during the breeding season (February 1 through August 31), if feasible. A minimum 160-foot-wide buffer would be placed around occupied burrows during the nonbreeding season (September 1 through January 31), and a minimum 650-foot-wide buffer would be placed around occupied burrows during the breeding season. Ground-disturbing activities would not occur within the designated buffers, if feasible.

DWR will consider and work with CDFW regarding appropriate no-disturbance buffers to occupied burrows.

Comment CDFW 25

The comment states the following:

*Recommended Mitigation Measure 14: BUOW Passive Relocation and Mitigation*

*If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA (CDFG 2012). If it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW then recommends mitigation in the form of replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) to mitigate for evicting BUOW and the loss of burrows. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.*

DWR's response:

DWR conducted surveys for active burrows in 2018 and 2021. DWR is conducting BUOW surveys during the 2022 season to detect any active BUOW burrows using the *Burrowing Owl Survey Protocol and Mitigation Guidelines* (CBOC 1993) and CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). If an occupied BUOW burrow is detected within the no disturbance

buffer of Project activities, Section 9.4 of the MND, Mitigation Measure BIO-4 describes a qualified biologist will conduct exclusion from the burrow during non-breeding season and confirm it is empty before collapse.

The measure also states DWR would enhance (enlarge or clear of debris) existing unsuitable burrows or create new burrows. Clarifying language was added to specify at a 1:1 mitigation ratio if exclusion and burrow collapse of a previously occupied burrow occurs. An option of compensation through the purchase of credits at the same ratio was added. DWR work with CDFW to choose the best option and continue to work with them throughout the Project.

#### Comment CDFW 26

The comment states the following:

##### *Other State Species of Special Concern*

*Issues and Impacts: American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rat, and California glossy snake are known to inhabit grassland and upland shrub areas with friable soils (Williams 1986, Thomson et al. 2016). These species have been documented to occur in the vicinity of the Project, which supports requisite habitat elements for these species (CDFW 2022). Habitat loss threatens these species (Williams 1986, Thomson et al. 2016), and habitat within and adjacent to the Project represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include habitat loss, nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.*

DWR's response:

Section 9.4 of the MND, Mitigation Measure BIO-1 through BIO-14 would avoid and minimize potential impacts to any wildlife in the area including special status species. Pages 50 through 55 of the section also address special status species and their likelihood to occur in the project area. The likelihood was based on habitat present and species presence or absence during biological surveys. DWR has been conducting surveys such as habitat assessments and species specific from 2016 through 2022.

#### Comment CDFW 27

The comment states the following:

##### *Recommended Mitigation Measure 15: Habitat Assessment*

*CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if Project areas or their*

*immediate vicinity contain suitable habitat for the species mentioned above.*

DWR's response:

DWR addressed the comment in Section 9.4, pages 50 through 55 of the MND. Table 12 describes special status species and their likelihood to occur in the project area. The likelihood was based on habitat present and species presence or absence during biological surveys. DWR has been conducting surveys such as habitat assessments and species specific from 2016 through 2022.

Comment CDFW 28

The comment states the following:

*Recommended Mitigation Measure 16: Surveys*

*If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for the species and their requisite habitat features to evaluate potential impacts resulting from ground and vegetation disturbance.*

DWR's response:

DWR added and will implement Mitigation Measure BIO-15 which describes conducting focused surveys for all potential special status, rare, and endemic species in the Project area during preconstruction surveys. DWR will implement Mitigation Measure BIO-2 which describes environmental training will be given prior to any activities. The environmental training will include State Special Species of Concern.

Comment CDFW 29

The comment states the following:

*Recommended Mitigation Measure 17: Avoidance*

*Avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around dens of mammals like the American badger as well as the entrances of burrows that can provide refuge for small mammals, reptiles, and amphibians.*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. DWR will implement Mitigation Measures BIO-5 and BIO-12, which describe the placement of a 50-foot no-disturbance buffer around American badger dens and special status small mammal burrows or complexes.

### Comment CDFW 30

The comment states the following:

#### *Special-Status Plants*

*Issue: The MND states that special-status plant species have potential to occur within the Project area. Special-status plant species meeting the definition of rare or endangered under CEQA section 15380 are known to occur within the Project and surrounding area. Kern mallow, recurved larkspur, oil nestraw, and Hoover's eriastrum have been documented within the Project vicinity.*

DWR's response:

Section 9.4, pages 54, 55, and 56 of the MND addresses special status plant presence and measures to avoid and minimize potential impacts. DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-1 describes within 1 year before the commencement of ground-disturbing activities, habitat assessment surveys for special-status plants would be conducted by a qualified botanist, in accordance with the most recent USFWS and CDFW guidelines and at the appropriate time of year when the target species would be in flower or otherwise clearly identifiable.

Special status and rare plant surveys have been conducted twice in 2022. DWR will continue to implement Mitigation Measure BIO-1.

### Comment CDFW 31

The comment states the following:

*Specific impact: Without appropriate avoidance and minimization measures for special-status plants, potential significant impacts associated with subsequent construction include loss of habitat, loss or reduction of productivity, and direct mortality.*

DWR's response:

DWR addressed the comment in Section 9.4 of the MND. Mitigation Measure BIO-1 states:

Locations of special-status plant populations would be clearly identified in the field by staking, flagging, or fencing a minimum 50-foot-wide buffer around them before the commencement of activities that may cause disturbance. No activity shall occur within the buffer area if feasible. If encroachment within the buffer is required, USFWS and/or CDFW would be consulted to determine appropriate compensation measures for the loss of special-status plants. Worker awareness training and biological monitoring would be conducted to ensure that avoidance measures are being implemented.



## Comment CDFW 32

The comment states the following:

*Evidence impact would be significant: Kern mallow, recurved larkspur, oil nestraw, and Hoover's eriastrum, and many other special-status plant species are threatened by grazing and agricultural, urban, and energy development. Many historical occurrences of these species are presumed extirpated (CNPS 2019).*

*Though new populations have recently been discovered, impacts to existing populations have the potential to significantly impact populations of plant species.*

DWR's Response:

DWR has conducted multiple special status and rare plant surveys in 2018, 2021, and 2022. Oil neststraw and Hoover's eriastrum were identified. The nearest Kern mallow detection during 2022 surveys was located half a mile northwest of the Project area.

DWR added Mitigation Measure BIO-1B which describes preserving the existing seedbank by separating and stockpiling the top few inches of soil for redistribution once project activities have completed.

## Comment CDFW 33

The comment states the following:

*Recommended Mitigation Measure 18: Special-Status Plant Surveys*

*CDFW recommends that individual Project sites be surveyed for special-status plants by a qualified botanist following the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.*

DWR's Response:

Response the same as Comment CDFW 30.

#### Comment CDFW 34

The comment states the following:

##### *Recommended Mitigation Measure 19: Special-Status Plant Avoidance*

*CDFW recommends that special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW may be warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.*

DWR's Response:

Response the same as Comment CDFW 31.

#### Comment CDFW 35

The comment states the following:

##### *Recommended Mitigation Measure 20: Listed Plant Species Take Authorization*

*If a State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization is warranted. Take authorization would occur through issuance of an ITP, pursuant to Fish and Game Code section 2081, subdivision (b).*

DWR's Response:

Response the same as Comment CDFW 31.

#### Comment CDFW 36

The comment states the following:

##### *Editorial Comments and/or Suggestions*

*Incidental Take Authorization: The MND in Table 9 on page 29 acknowledges that obtaining State take authorization through an ITP may be required for the Project.*

*However, the remainder of the MND does not specify whether DWR will obtain an ITP for activities that may result in take of State-listed species. The MND includes the following measures that are problematic from the standpoint of engaging in take (as defined pursuant to Fish and Game Code section 86) of listed species if implemented absent the acquisition of a State*

*ITP:*

- *Mitigation Measure BIO-5 (MM BIO-5): a 50-foot-wide buffer will be established around small mammal burrows to avoid and minimize disturbance. If encroachment within a buffer is required, then DWR would consult with CDFW. If complete avoidance that would ensure no-net-loss of burrows potentially occupied by a listed species is infeasible, DWR will immediately contact CDFW and USFWS regarding incidental take permits and purchase of credits at a mitigation bank at a minimum 1:1 ratio.*
- *MM BIO-6: small mammal exclusion fencing will be installed just outside the Project work boundary.*
- *MM BIO-7: if special status kangaroo rat or SJAS habitat would be affected by the Project, a compensatory mitigation plan would be developed and implemented in coordination with CDFW and USFWS. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent.*
- *MM BIO-8: recommends consultation with CDFW if SJKF are detected during pre-construction surveys, and establishing a 50-foot buffer to avoid the species and a 100-foot buffer to avoid known dens. MM BIO-8 also states that if natal dens are present or encroachment within a buffer is required, CDFW would be consulted to determine appropriate compensation measures for the loss of SJKF.*
- *MM BIO-9: if SJKF are observed inside a pipe, the pipe may be moved only once to avoid construction activity, the animal will be allowed to leave on its own, and CDFW and USFWS would be notified within 48 hours.*

*Due to the high risk of engaging in take, the activities described in the above mitigation measures warrant obtaining an ITP pursuant to Fish and Game Code section 2081, subdivision (b). CDFW advises that the MND be revised to clearly articulate that the above measures will not be implemented without having secured an ITP. Moreover; because TKR, SJAS, GKR, and SJKF are deemed present by the MND (Table 14, pages 49 and 50), CDFW further advises that an ITP be pursued for the Project as CDFW does not believe that full avoidance for these species can be consistently and reliably achieved. Consultation with CDFW in order to comply with CESA and to obtain an ITP is recommended well in advance of Project implementation.*

*DWR's Response:*

DWR met with Craig Bailey and Brandon Sanderson of CDFW on October 3, 2019 to introduce the project and discuss potential permitting requirements. DWR is aware of the need to obtain "take" coverage pursuant to Fish and Game Code(FGC) section 2081, subdivision (b). DWR is preparing an application for both FGC Section 2081 and Federal Endangered Species Act Section 10(a)(1)(B).

## Comment CDFW 37

The comment states the following:

*Lake and Streambed Alteration: Project activities that have the potential to substantially change the bed, bank, and channel of streams and associated wetlands may be subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity 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 (including the removal of riparian vegetation); (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 as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration (LSA) Agreement; therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for LSA Agreement issuance. Additional information on notification requirements is available through the Central Region LSA Program at (559) 243-4593 or R4LSA@wildlife.ca.gov, and the CDFW website: <https://wildlife.ca.gov/Conservation/LSA>.*

DWR's Response:

DWR conducted aquatic resources survey in 2021. No aquatic features under 1602 jurisdiction such as bed, bank, channel, or wetland features were detected within the Project area. If the proposed Project changes and includes features under 1602 jurisdiction, DWR will re-consult with CDFW accordingly.

## Comment CDFW 38

The comment states the following:

*Nesting birds: CDFW encourages that Project implementation occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.*

*To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or*

*equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends that the work causing that change cease and that CDFW be consulted for additional avoidance and minimization measures.*

DWR's Response:

DWR would take into consideration editorial comments and suggestions in relation to nesting birds. DWR conducted avian surveys at the project site in 2018 as well as multiple site assessments from 2016 through 2022. Nesting sites were not confirmed in the area. A list of species observed can be found on page 48, Section 9.4 of the MND.

DWR will implement Mitigation Measure BIO-14 which describes preconstruction surveys for migratory bird species, establishing appropriate buffers, and consultation with CDFW and USFWS in encroachment within the buffer is unavoidable.

Comment CDFW 39

The comment states the following:

*If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place 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. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers.*

DWR's Response:

DWR would comply with Migratory Bird Treaty Act and relevant Fish and Game Codes. Vegetation removal would be scheduled outside of the nesting period, as feasible. All other editorial comments and/or suggestions related to nesting birds would be taken into consideration. See response to comment CDFW 38.

Comment CDFW 40

The comment states the following:

*Endangered Species Act Consultation: CDFW recommends consultation with the USFWS prior to Project ground disturbance, due to potential impacts to Federal listed species. Take under the Federal Endangered Species Act*

*(FESA) is more stringently defined than under CESA; take under FESA may also include 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 Project implementation.*

DWR's Response:

At the request of UFWS, DWR has been participating in monthly progress updates since February 2021. Margaret Sepulveda has been DWR's immediate contact and is aware of the Projects potential impacts and compliance with FESA.

Comment CDFW 41

The comment states the following:

#### **ENVIRONMENTAL DATA**

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

DWR's Response:

DWR's standard practices require the submittal of a CNDDDB form if a detection is made of a special status species or resource. Special status species and resources detected during Project surveys and any potential future Project activities would be submitted to CNDDDB.

## Comment CDFW 42

The comment states the following:

### *FILING FEES*

*The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).*

DWR's Response:

DWR will pay CEQA filing fees according to 2022 fees at the filing of the Notice of Determination.

**Comment CDFW 43**

The comment displays a recommended MMRP as follows:

**Attachment 1**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM  
(MMRP)**

**PROJECT: California Department of Water Resources  
California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, and Repair  
Project**

**STATE CLEARINGHOUSE No.: 2022030757**

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Project Activity</i>	
<i>Recommended Mitigation Measure 1: SJKF Surveys and Minimization</i>	
<i>Recommended Mitigation Measure 2: SJKF Take Authorization</i>	
<i>Recommended Mitigation Measure 3: TKR and GKR Avoidance</i>	
<i>Recommended Mitigation Measure 4: TKR and GKR Surveys</i>	
<i>Recommended Mitigation Measure 5: TKR and GKR Take Authorization</i>	
<i>Recommended Mitigation Measure 6: SJAS Take Authorization</i>	
<i>Recommended Mitigation Measure 7: BNLL Habitat Assessment</i>	
<i>Recommended Mitigation Measure 8: BNLL Surveys</i>	
<i>Recommended Mitigation Measure 9: BNLL Take Avoidance</i>	
<i>Recommended Mitigation Measure 10: CBB Surveys and Avoidance</i>	
<i>Recommended Mitigation Measure 11: BUOW Habitat Assessment</i>	
<i>Recommended Mitigation Measure 12: BUOW Surveys</i>	
<i>Recommended Mitigation Measure 13: BUOW Avoidance</i>	
<i>Recommended Mitigation Measure 14: BUOW Passive Relocation and Mitigation</i>	



<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<i>Recommended Mitigation Measure 15: Habitat Assessment – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</i>	
<i>Recommended Mitigation Measure 16: Surveys – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</i>	
<i>Recommended Mitigation Measure 17: Avoidance – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</i>	
<i>Recommended Mitigation Measure 18: Special-Status Plant Surveys</i>	
<i>Recommended Mitigation Measure 19: Special-Status Plant Avoidance</i>	
<i>Recommended Mitigation Measure 20: Listed Plant Species Take Authorization</i>	
<i>During Project Activity</i>	
<i>Recommended Mitigation Measure 1: SJKF Surveys and Minimization</i>	
<i>Recommended Mitigation Measure 3: TKR Avoidance</i>	
<i>Recommended Mitigation Measure 9: BNLL Take Avoidance</i>	
<i>Recommended Mitigation Measure 10: CBB Surveys and Avoidance</i>	
<i>Recommended Mitigation Measure 13: BUOW Avoidance</i>	
<i>Recommended Mitigation Measure 17: Avoidance – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</i>	
<i>Recommended Mitigation Measure 19: Special-Status Plant Avoidance</i>	
<i>Recommended Mitigation Measure 20: Listed Plant Species Take Authorization</i>	

DWR's Response:

DWR is aware of the requirement to submit a Mitigation Monitoring and Reporting Program (MMRP) as part of the finalization process for CEQA documentation. An MMRP has been prepared for the Project and will be submitted with the final MND.

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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](http://www.wildlife.ca.gov)



**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



May 9, 2022

Rochelle Amrhein  
California Department of Water Resources  
P.O. Box 942836  
Sacramento, California 94236  
[Rochelle.Amrhein@water.ca.gov](mailto:Rochelle.Amrhein@water.ca.gov)

**Subject: California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, and Repair (Project)**  
**MITIGATED NEGATIVE DECLARATION (MND)**  
**State Clearinghouse No. 2022030757**

Dear Ms. Amrhein:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND from the California Department of Water Resources (DWR) 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 the Fish and Game Code. While the comment period may have ended, CDFW would appreciate if you will still consider our comments.

#### **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & 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.

<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.

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Rochelle Amrhein  
California Department of Water Resources  
May 9, 2022  
Page 2

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 will be required.

**Fully Protected Species:** CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515, respectively. Take of any fully protected species is prohibited and CDFW cannot authorize their incidental take for the Project.

**Bird Protection:** CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird).

## PROJECT DESCRIPTION SUMMARY

DWR proposes to investigate, design, and repair the California Aqueduct (Aqueduct) between Milepost (MP) 230.6 and 231.44. The following steps will address the unstable soils in the area and secure the surrounding infrastructure:

- Conduct geotechnical exploration to determine soil behavior types, weak areas, and soil moisture contents in the area.
- Reinforce approximately 1.18 miles of Aqueduct embankment to improve soil structure and reduce seepage.
- Restore the embankment to the design elevation to reduce risk of overtopping.
- Repair any damage to the Aqueduct liner to prevent seepage.
- Raise approximately 1.4 miles of Aqueduct liner to design elevation to prevent seepage and erosion.
- Reconstruct the road on top of the restored embankment to restore access

Geotechnical investigations are proposed to begin in 2023. Results and analysis from the investigations will determine the best repair option for the Project. Potential options have been identified as appropriate remediation and include ground compaction, permeation grouting, and cut-off walls.

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**Proponent: DWR**

**Objectives:** The Project would repair the embankment of the California Aqueduct on the east side of Pool 27 and repair both sides of the liner. The Project would also involve geotechnical investigations prior to any repairs to collect data that would be used in the design of the repair.

**Location:** The proposed Project is approximately four miles south of Buttonwillow, in Kern County (UTM 277072.307m E and 3913732.073m N). DWR currently plans to repair the embankment on both sides of the California Aqueduct, in Pool 27, from MP 230.7 to 231.05 and MP 231.2 to 231.44.

**Timeframe:** Project implementation is proposed to begin in 2023.

**COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist DWR in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife i.e., (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDB) records, a review of aerial photographs of the Project and surrounding habitat, several special status species could potentially be impacted by Project activities.

In particular, CDFW is concerned regarding potential impacts for the following special status wildlife species and habitats known to occupy the Project area: the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State and federally endangered Tipton kangaroo rat (*Dipodomys nitratoideus nitratoideus*); the State and federally endangered giant kangaroo rat (*Dipodomys ingens*); the State threatened Nelson's (=San Joaquin) antelope squirrel (*Ammospermophilus nelsoni*); the State and federally endangered and State fully-protected blunt-nosed leopard lizard (*Gambelia sila*); the State species of special concern burrowing owl (*Athene cunicularia*), American badger (*Taxidea taxus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), San Joaquin pocket mouse (*Perognathus inornatus*), short-nosed kangaroo rat (*Dipodomys nitratoideus brevinasus*), and California glossy snake (*Arizona elegans occidentalis*); the federally endangered and California Rare Plant Rank (CRPR) 1B.2 Kern mallow (*Eremalche parryi* ssp. *kemesis*); the CRPR 1B.2 recurved larkspur (*Delphinium recurvatum*) and oil nestraw (*Stylodine citroleum*); and the CRPR 4.2 Hoover's eriastrum (*Eriastrum hooveri*). Suitable habitat for Crotch bumble bee (*Bombus crotchii*) occurs in the Project vicinity. Other species of birds, amphibians, reptiles, mammals, fish, and plants also compose the local ecosystem within the Project boundary. Valley saltbush scrub habitat is located in the Project vicinity.

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Please note that the CNDDDB is populated by and records voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. In order to adequately assess any potential Project related impacts to biological resources, surveys conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present at or near the Project area.

CDFW recommends that the following modifications and/or edits be incorporated into the MND, including proposed avoidance, minimization, and compensatory measures, prior to its adoption by DWR.

**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 United States Fish and Wildlife Service (USFWS)?**

**COMMENT 1: San Joaquin kit fox (SJKF)**

**Issues and Impacts:** SJKF occurrences have been documented within the Project area (CDFW 2022), and the MND acknowledges presence of SJKF. Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). Kern County supports relatively large areas of high and medium suitability SJKF habitat (Cypher et al. 2013). The Project area is bordered by highly suitable habitat in an area that is otherwise under intensive agriculture.

SJKF den in rights-of-way, agricultural and fallow/ruderal habitat, dry stream channels, and canal levees, etc., and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). SJKF may be attracted to project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in fallow and agricultural fields and utilize streams and canals as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the Project boundary and surrounding area. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with construction include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

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**Recommended Mitigation Measure 1: SJKF Surveys and Minimization**

CDFW recommends assessing presence/absence of SJKF by having qualified biologists conducting surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the USFWS (2011) *Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance* during Project implementation.

**Recommended Mitigation Measure 2: SJKF Take Authorization**

SJKF activity or detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b). Alternatively, species presence may be assumed and an ITP obtained prior to Project implementation.

**COMMENT 2: Tipton Kangaroo Rat (TKR) and Giant Kangaroo Rat (GKR)**

**Issues and Impacts:** The MND acknowledges presence of TKR and GKR in areas of suitable habitat within and adjacent to the Project (CDFW 2022). Suitable habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows.

Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to TKR and GKR. Very little suitable habitat for these species remains along the edges of the southern San Joaquin Valley floor (ESRP 2022a, ESRP 2022b). Areas of suitable habitat in the Project area along the California Aqueduct represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. Without appropriate avoidance and minimization measures for TKR and GKR, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.

**Recommended Mitigation Measure 3: TKR and GKR Avoidance**

CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances of suitable size for TKR and GKR use.

**Recommended Mitigation Measure 4: TKR and GKR Surveys**

Because suitable habitat for TKR and GKR is within the Project area, CDFW recommends that a trapping plan for determining presence of TKR and GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. CDFW recommends these surveys to be conducted by a qualified biologist who holds a Memorandum of Understanding for TKR and GKR. CDFW further recommends that these surveys be conducted between April 1 and October 31, when kangaroo rats

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are most active, and well in advance of ground-disturbing activities in order to determine if impacts to TKR and GKR could occur.

**Recommended Mitigation Measure 5: TKR and GKR Take Authorization**

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

**COMMENT 3: San Joaquin Antelope Squirrel (SJAS)**

**Issue and Impacts:** The MND acknowledges presence, and SJAS have been documented within areas of suitable habitat in the Project vicinity (CDFW 2022). Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJAS. Very little suitable habitat for this species remains along the western floor of the San Joaquin Valley (ESRP 2022c). Areas of suitable habitat within the Project Area vicinity represent some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture, and ground-disturbing activities are anticipated during Project implementation. Without appropriate avoidance and minimization measures for SJAS, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.

**Recommended Mitigation Measure 6: SJAS Take Authorization**

Because suitable habitat is present and SJAS is within and adjacent to the Project area, CDFW advises that avoidance of SJAS is not likely to be feasible. Therefore, in order to avoid costly delays to the project, CDFW advises that take authorization for SJAS be pursued and that acquisition of an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b) is warranted.

**COMMENT 4: Blunt-Nosed Leopard Lizard (BNLL)**

**Issues and Impacts:** The MND acknowledges a high potential for BNLL to occur within and adjacent to the Project due to species occurrence and suitable habitat documented within close proximity to the Project (CDFW 2022). Suitable BNLL habitat includes areas of grassland and upland scrub that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites and unpaved access roadways.

Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to BNLL (ESRP 2022d). The range for BNLL now consists of



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scattered parcels of undeveloped land within the valley floor and the foothills of the Coast Range (USFWS 1998).

**Recommended Mitigation Measure 7: BNLL Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for BNLL.

**Recommended Mitigation Measure 8: BNLL Surveys**

If suitable habitat is present, prior to initiating any vegetation- or ground-disturbance activities, CDFW recommends conducting surveys in accordance with the *Approved Survey Methodology for the Blunt-nosed Leopard Lizard* (CDFW 2019). This survey protocol is designed to optimize BNLL detectability. CDFW advises completion of BNLL surveys no more than one year prior to initiation of ground disturbance. Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall, and that within these time periods, there are specific protocol-level date, temperature, and time parameters, which must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day "preconstruction surveys" often recommended for other wildlife species. In addition, the BNLL protocol specifies different survey effort requirements based on whether the disturbance results from maintenance activities or if the disturbance results in habitat removal (CDFW 2019).

**Recommended Mitigation Measure 9: BNLL Take Avoidance**

CDFW cannot authorize the Project-related incidental take of BNLL. BNLL detection during protocol level surveys warrants immediate consultation with CDFW to discuss whether take of BNLL can be avoided during Project activities.

**COMMENT 5: Crotch Bumble Bee (CBB)**

**Issues and Impacts:** CBB have been documented to occur within the vicinity of the Project area (CDFW 2022). Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows, but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014, Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.

CBB was once common throughout most of the central and southern California; however, it now appears to be absent from most of it, especially in the central

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portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest that there have been sharp declines in relative abundance of CBB by 98% and persistence by 80% over the last 10 years. Without appropriate avoidance and minimization measures for CBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality.

**Recommended Mitigation Measure 10: CBB Surveys and Avoidance**

CDFW recommends that all small mammal burrows and thatched/bunch grasses be surveyed for the species during the optimal flight period of April 1 through July 31 during the peak blooming period of preferred plant species prior to Project implementation. Avoidance of detected queens or workers is encouraged to allow CBB to leave the Project site of their own volition. Avoidance and protection of detected nests prior to or during Project implementation is encouraged with delineation and observance of a 50-foot no-disturbance buffer.

**COMMENT 6: Burrowing Owl (BUOW)**

**Issues and Impacts:** BUOW inhabit open grassland containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Habitat both within and bordering the Project supports grassland habitat. Potentially significant direct impacts associated with subsequent activities and land conversion include habitat loss, burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project boundary contains undeveloped land located adjacent to intensively managed agriculture; therefore, subsequent ground-disturbing activities associated with subsequent constructions have the potential to significantly impact local BUOW populations.

**Recommended Mitigation Measure 11: BUOW Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of implementation of Project-specific activities, to determine if the Project area or its vicinity contains suitable habitat for BUOW.

**Recommended Mitigation Measure 12: BUOW Surveys**

If suitable habitat is present on or in the vicinity of the Project area, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist

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conduct surveys following the California Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines* (CBOC 1993) and CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Specifically, these reports suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (i.e., April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a minimum 500-foot buffer around the Project area.

### **Recommended Mitigation Measure 13: BUOW Avoidance**

CDFW recommends that no-disturbance buffers, as outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012), be implemented prior to and during any ground-disturbing activities, and specifically that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

\* meters (m)

### **Recommended Mitigation Measure 14: BUOW Passive Relocation and Mitigation**

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA (CDFG 2012). If it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW then recommends mitigation in the form of replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) to mitigate for evicting BUOW and the loss of burrows. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.

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#### **COMMENT 7: Other State Species of Special Concern**

**Issues and Impacts:** American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rat, and California glossy snake are known to inhabit grassland and upland shrub areas with friable soils (Williams 1986, Thomson et al. 2016). These species have been documented to occur in the vicinity of the Project, which supports requisite habitat elements for these species (CDFW 2022). Habitat loss threatens these species (Williams 1986, Thomson et al. 2016), and habitat within and adjacent to the Project represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include habitat loss, nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

##### **Recommended Mitigation Measure 15: Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if Project areas or their immediate vicinity contain suitable habitat for the species mentioned above.

##### **Recommended Mitigation Measure 16: Surveys**

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for the species and their requisite habitat features to evaluate potential impacts resulting from ground and vegetation disturbance.

##### **Recommended Mitigation Measure 17: Avoidance**

Avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around dens of mammals like the American badger as well as the entrances of burrows that can provide refuge for small mammals, reptiles, and amphibians.

#### **COMMENT 8: Special-Status Plants**

**Issue:** The MND states that special-status plant species have potential to occur within the Project area. Special-status plant species meeting the definition of rare or endangered under CEQA section 15380 are known to occur within the Project and surrounding area. Kern mallow, recurved larkspur, oil nestrow, and Hoover's eriastrium have been documented within the Project vicinity.

**Specific impact:** Without appropriate avoidance and minimization measures for special-status plants, potential significant impacts associated with subsequent construction include loss of habitat, loss or reduction of productivity, and direct mortality.

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**Evidence impact would be significant:** Kern mallow, recurved larkspur, oil nestraw, and Hoover's eriastrum, and many other special-status plant species are threatened by grazing and agricultural, urban, and energy development. Many historical occurrences of these species are presumed extirpated (CNPS 2019). Though new populations have recently been discovered, impacts to existing populations have the potential to significantly impact populations of plant species.

**Recommended Mitigation Measure 18: Special-Status Plant Surveys**

CDFW recommends that individual Project sites be surveyed for special-status plants by a qualified botanist following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

**Recommended Mitigation Measure 19: Special-Status Plant Avoidance**

CDFW recommends that special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW may be warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

**Recommended Mitigation Measure 20: Listed Plant Species Take Authorization**

If a State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization is warranted. Take authorization would occur through issuance of an ITP, pursuant to Fish and Game Code section 2081, subdivision (b).

**Editorial Comments and/or Suggestions**

**Incidental Take Authorization:** The MND in Table 9 on page 29 acknowledges that obtaining State take authorization through an ITP may be required for the Project. However, the remainder of the MND does not specify whether DWR will obtain an ITP for activities that may result in take of State-listed species. The MND includes the following measures that are problematic from the standpoint of engaging in take (as defined pursuant to Fish and Game Code section 86) of listed species if implemented absent the acquisition of a State ITP:

- Mitigation Measure BIO-5 (MM BIO-5): a 50-foot-wide buffer will be established around small mammal burrows to avoid and minimize disturbance. If encroachment within a buffer is required, then DWR would consult with CDFW. If complete avoidance that would ensure no-net-loss of burrows potentially occupied by a listed species is infeasible, DWR will immediately contact CDFW

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and USFWS regarding incidental take permits and purchase of credits at a mitigation bank at a minimum 1:1 ratio.

- MM BIO-6: small mammal exclusion fencing will be installed just outside the Project work boundary.
- MM BIO-7: if special status kangaroo rat or SJAS habitat would be affected by the Project, a compensatory mitigation plan would be developed and implemented in coordination with CDFW and USFWS. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent.
- MM BIO-8: recommends consultation with CDFW if SJKF are detected during pre-construction surveys, and establishing a 50-foot buffer to avoid the species and a 100-foot buffer to avoid known dens. MM BIO-8 also states that if natal dens are present or encroachment within a buffer is required, CDFW would be consulted to determine appropriate compensation measures for the loss of SJKF.
- MM BIO-9: if SJKF are observed inside a pipe, the pipe may be moved only once to avoid construction activity, the animal will be allowed to leave on its own, and CDFW and USFWS would be notified within 48 hours.

Due to the high risk of engaging in take, the activities described in the above mitigation measures warrant obtaining an ITP pursuant to Fish and Game Code section 2081, subdivision (b). CDFW advises that the MND be revised to clearly articulate that the above measures will not be implemented without having secured an ITP. Moreover; because TKR, SJAS, GKR, and SJKF are deemed present by the MND (Table 14, pages 49 and 50), CDFW further advises that an ITP be pursued for the Project as CDFW does not believe that full avoidance for these species can be consistently and reliably achieved. Consultation with CDFW in order to comply with CESA and to obtain an ITP is recommended well in advance of Project implementation.

**Lake and Streambed Alteration:** Project activities that have the potential to substantially change the bed, bank, and channel of streams and associated wetlands may be subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity 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 (including the removal of riparian vegetation); (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 as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration (LSA) Agreement; therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for LSA Agreement

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issuance. Additional information on notification requirements is available through the Central Region LSA Program at (559) 243-4593 or [R4LSA@wildlife.ca.gov](mailto:R4LSA@wildlife.ca.gov), and the CDFW website: <https://wildlife.ca.gov/Conservation/LSA>.

**Nesting birds:** CDFW encourages that Project implementation occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends that the work causing that change cease and that CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place 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. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers.

**Endangered Species Act Consultation:** CDFW recommends consultation with the USFWS prior to Project ground disturbance, due to potential impacts to Federal listed species. Take under the Federal Endangered Species Act (FESA) is more stringently defined than under CESA; take under FESA may also include 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 Project implementation.



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## ENVIRONMENTAL DATA

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

## FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

## CONCLUSION

CDFW appreciates the opportunity to comment on the MND to assist DWR in identifying and mitigating Project impacts on biological resources. If you have questions regarding this letter, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 580-3202 or by email at [Annette.Tenneboe@wildlife.ca.gov](mailto:Annette.Tenneboe@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
90842C591E022459  
Valene Cook

Acting Regional Manager

ec: Office of Planning and Research, State Clearinghouse, Sacramento

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**Attachment 1**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM  
(MMRP)**

**PROJECT: California Department of Water Resources  
California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, and Repair  
Project**

**STATE CLEARINGHOUSE No.: 2022030757**

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Project Activity</i>	
<b>Recommended Mitigation Measure 1: SJKF Surveys and Minimization</b>	
<b>Recommended Mitigation Measure 2: SJKF Take Authorization</b>	
<b>Recommended Mitigation Measure 3: TKR and GKR Avoidance</b>	
<b>Recommended Mitigation Measure 4: TKR and GKR Surveys</b>	
<b>Recommended Mitigation Measure 5: TKR and GKR Take Authorization</b>	
<b>Recommended Mitigation Measure 6: SJAS Take Authorization</b>	
<b>Recommended Mitigation Measure 7: BNLL Habitat Assessment</b>	
<b>Recommended Mitigation Measure 8: BNLL Surveys</b>	
<b>Recommended Mitigation Measure 9: BNLL Take Avoidance</b>	
<b>Recommended Mitigation Measure 10: CBB Surveys and Avoidance</b>	
<b>Recommended Mitigation Measure 11: BUOW Habitat Assessment</b>	
<b>Recommended Mitigation Measure 12: BUOW Surveys</b>	
<b>Recommended Mitigation Measure 13: BUOW Avoidance</b>	
<b>Recommended Mitigation Measure 14: BUOW Passive Relocation and Mitigation</b>	

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<b>Recommended Mitigation Measure 15: Habitat Assessment – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</b>	
<b>Recommended Mitigation Measure 16: Surveys – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</b>	
<b>Recommended Mitigation Measure 17: Avoidance – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</b>	
<b>Recommended Mitigation Measure 18: Special-Status Plant Surveys</b>	
<b>Recommended Mitigation Measure 19: Special-Status Plant Avoidance</b>	
<b>Recommended Mitigation Measure 20: Listed Plant Species Take Authorization</b>	
<i>During Project Activity</i>	
<b>Recommended Mitigation Measure 1: SJKF Surveys and Minimization</b>	
<b>Recommended Mitigation Measure 3: TKR Avoidance</b>	
<b>Recommended Mitigation Measure 9: BNLL Take Avoidance</b>	
<b>Recommended Mitigation Measure 10: CBB Surveys and Avoidance</b>	
<b>Recommended Mitigation Measure 13: BUOW Avoidance</b>	
<b>Recommended Mitigation Measure 17: Avoidance – American badger, San Joaquin pocket mouse, Tulare grasshopper mouse, short-nosed kangaroo rate, and California glossy snake.</b>	
<b>Recommended Mitigation Measure 19: Special-Status Plant Avoidance</b>	
<b>Recommended Mitigation Measure 20: Listed Plant Species Take Authorization</b>	

# Exhibit B

Mitigation Monitoring and Reporting Program

## **CALIFORNIA AQUEDUCT MILEPOST 230.6 TO 231.4 INVESTIGATION, DESIGN, AND REPAIR**

California Department of Water Resources

State Clearinghouse No. 2022030757

July 2022

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# MITIGATION MONITORING AND REPORTING PROGRAM

## INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA), the California Department of Water Resources (DWR) has prepared an initial study/proposed mitigated negative declaration (IS/MND) that identifies potentially significant impacts related to the investigations and construction of the California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, And Repair Project (proposed project). The IS/MND also identifies mitigation measures that would be implemented to reduce impacts to a less-than-significant level.

Section 21081.6 of the California Public Resources Code, and Sections 15091(d) and 15097 of the State CEQA Guidelines, require public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” A mitigation monitoring and reporting program (MMRP) is required for the proposed project because the IS/MND identifies potentially significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to mitigate those impacts.

DWR is the lead agency that must adopt the MMRP for the proposed project.

## PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the investigation and construction of the project. The MMRP may be modified by DWR during project implementation, as necessary, in response to changing conditions or other refinements. **Table 1** has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, the person and/or agency responsible for implementing the measure, the monitoring and reporting procedure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the IS/MND.

## ROLES AND RESPONSIBILITIES

Unless otherwise specified in Table 1, DWR is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure, and for demonstrating that the action has been successfully completed. DWR, at their discretion, may also delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent as long as DWR maintain final responsibility for ensuring that the actions are taken.

## ANNUAL REPORTING

The project manager for DWR shall prepare monitoring reports annually that describe the compliance of the activity with the required mitigation measures. Annual reporting on implementation of these measures will end when construction is completed. Information regarding inspections and other requirements shall be compiled and explained in each report. The report shall be designed to simply and clearly describe whether mitigation measures have been adequately implemented. At a minimum, each report shall identify the mitigation measures or conditions to be monitored for implementation, whether compliance with the mitigation measures or conditions has occurred, the procedures used to assess compliance, and whether further action is required. The monitoring report shall be presented to DWR for review and decisions regarding any required action or determination.

## MITIGATION MONITORING PLAN

The annual report will verify the implementation of mitigation measures. **Table 1** should guide DWR in its evaluation and should be the basis for annual reporting.

The column categories identified in **Table 1** are described below:

- ▶ **Mitigation Number**—This column lists the mitigation measures according to the number in the MND.
- ▶ **Mitigation Measure**—This column provides the text of the mitigation measures identified in the MND.
- ▶ **Mitigation Implementation Timeframe**—This column lists the time frame in which the mitigation will take place.
- ▶ **Monitoring Timeframe**—This column lists the time frame in which mitigation implementation will be monitored.
- ▶ **Responsibility for Verification of Compliance**—This column identifies the entity(ies) responsible for verifying compliance with the requirements of the mitigation measure.
- ▶ **Date Compliance Completed**—The “Date Completed” column is to be dated and initialed by the project manager or his/her designee, based on the documentation provided by the construction contractors, its agents (qualified individuals), or through personal verification by DWR.

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
<b>AQ-1</b>	<b>California Air Resources Board Equipment Restrictions</b> Prior to the start of construction activities, the construction contractor shall ensure that all 75 horsepower or greater diesel-powered equipment comply with California Air Resources Board (CARB)-certified Tier 4 emissions standards for off-road diesel engines.	Before the start of activities and during construction	Throughout all construction activities	DWR and its construction contractor(s)	
<b>BIO-1A</b>	<b>Avoid and Minimize Effects to Special-status Plants</b> Within 1 year before the commencement of ground-disturbing activities, habitat assessment surveys for special-status plants would be conducted by a qualified botanist, in accordance with the most recent USFWS and CDFW guidelines and at the appropriate time of year when the target species would be in flower or otherwise clearly identifiable. Survey results can be climate dependent; survey timing would be coordinated with USFWS and CDFW.  Locations of special-status plant populations would be clearly identified in the field by staking, flagging, or fencing a minimum 50-foot-wide buffer around them before the commencement of activities that may cause disturbance. No activity shall occur within the buffer area if feasible. If encroachment within the buffer is required, USFWS and/or CDFW would be consulted to determine appropriate compensation measures for the loss of special-status plants. Worker awareness training and biological monitoring would be conducted to ensure that avoidance measures are being implemented.	One year before the start of ground-disturbing activities during the appropriate bloom periods	Throughout all construction activities	DWR and its construction contractor(s)	
<b>BIO-1B</b>	<b>Minimize Effects to Special-status Plants</b> In order to preserve the existing seedbank the topsoil will be saved for use later. During grading, the top few inches of soil will be scraped into a spoil pile in an approved location, such as the staging area. The spoil pile will be protected from erosion throughout the duration of the Project. At the completion of the embankment repair and recontouring, the topsoil will be evenly distributed within the Project area.	Pre and post construction activities	At start of construction	DWR and its construction contractor(s)	
<b>BIO-2</b>	<b>Minimize Effects to All Special-status Species</b> DWR would conduct a Worker Environmental Awareness Program (WEAP) prior to the start of construction. A qualified biologist would conduct a presentation on all potential special-status species to train all construction staff that will be involved with the project.  On completion of the WEAP training, construction crews would sign a form stating that they attended the training, understood the information presented, and would comply with the WEAP requirements.	Before and during construction activities	Throughout all construction activities when new staff and construction contractors access the site	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
<b>BIO-3</b>	<p><b>Avoid Effects to Burrowing Owl</b></p> <p>Preconstruction surveys for burrowing owls would be conducted by a qualified biologist in areas supporting potentially suitable habitat and within 30 days before the start of construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site would be resurveyed.</p> <p>Occupied burrows would not be disturbed during the breeding season (February 1 through August 31), if feasible. A minimum 160-foot-wide buffer would be placed around occupied burrows during the nonbreeding season (September 1 through January 31), and a minimum 650-foot-wide buffer would be placed around occupied burrows during the breeding season. Ground-disturbing activities would not occur within the designated buffers, if feasible.</p>	Before and during construction activities	30 days before start of construction and ongoing if construction activities are delayed for more than 30 days	DWR and its construction contractor(s)	
<b>BIO-4</b>	<p><b>Minimize Effects to Burrowing Owl</b></p> <p>If potential burrowing owl burrows are located in the project area, burrows would be confirmed empty and excavated prior to their breeding season. The use of one-way doors may be used at burrow entrances as a precaution.</p> <p>If occupied burrowing owl burrows cannot be avoided during ground disturbing activities, they would be relocated in accordance with CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012).</p> <p>If feasible the relocation would be done during the non-breeding season. A qualified biologist would verify through noninvasive methods that owls have not begun egg-laying and incubation, or that juveniles from occupied burrows are foraging independently and are capable of independent survival, a plan shall be coordinated with CDFW to offset burrow habitat and foraging areas on the project site if burrows and foraging areas are taken by the proposed project.</p> <p>If destruction of occupied burrows occurs, existing unsuitable burrows would be enhanced (enlarged or cleared of debris), the purchase of mitigation credits, or new burrows created at a 1:1 ratio. This would be done in consultation with CDFW.</p> <p>Passive owl relocation techniques would be implemented during non breeding season or after confirming the absence of eggs and juveniles as mentioned above. Owls would be excluded from burrows in the immediate impact zone within a 160-foot-wide buffer</p>	Before construction activities	During activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>zone by installing one-way doors in burrow entrances. These doors would be in place at least 48 hours before excavation to ensure the owls have departed.</p> <p>The project area would be monitored daily for 1 week to confirm owl departure from burrows before any ground-disturbing activities.</p> <p>Where possible, burrows would be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe would be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.</p>				
<b>BIO-5</b>	<p><b>Avoid Effects to Special-Status Small Mammals</b></p> <p>Prior to project activities, a qualified biologist would identify and map potential small mammal burrows and burrow complexes within the project footprint. Where burrows and complexes are present, a 50-foot-wide buffer shall be placed to avoid and minimize disturbance to the species.</p> <p>If encroachment within a buffer is required, USFWS and CDFW would be consulted. If complete avoidance that would ensure no-net-loss of burrows potentially occupied by a listed species is infeasible, the project proponent shall immediately contact CDFW habitat and USFWS regarding incidental take permits and may include purchasing credits at a mitigation bank at a minimum 1:1 ratio.</p>	Before and during construction activities	During activities identified under "Mitigation Measure"	DWR and its construction contractor(s)	
<b>BIO-6</b>	<p><b>Minimize Effects to Special-Status Small Mammals</b></p> <p>Before the start of project activities, approved exclusion fencing would be installed just outside the work limit. This fencing would be maintained throughout construction and would be removed at the conclusion of ground-disturbing activities. No vehicles would be allowed beyond the exclusion fencing. A USFWS- and CDFW-approved biological monitor would be present on site, during intervals recommended by USFWS and CDFW, to inspect the fencing.</p> <p>The approved biological monitor would be on site each day during any ground disturbance and during initial site grading or development of sites in suitable habitat for special-status small mammals.</p>	During construction activities	During activities identified under "Mitigation Measure"	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>Before the start of work each day, the biological monitor would check for animals under any equipment to be used that day, such as vehicles or stockpiles of items such as pipes. If special-status small mammals are present, they would be allowed to leave on their own, before the initiation of construction activities for the day. To prevent inadvertent entrapment of special-status small mammals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep would be covered by plywood or similar materials at the close of each working day or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals.</p> <p>Plastic monofilament netting (erosion control matting) or similar material shall not be used at the project site because special-status small mammals may become entangled or trapped. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.</p>				
<b>BIO-7</b>	<p><b>Compensate for Temporary or Permanent Loss of Special-Status Small Mammals Habitat</b></p> <p>If special-status kangaroo rat and San Joaquin antelope squirrel habitat would be affected by the proposed project, a compensatory mitigation plan would be developed and implemented in coordination with USFWS and CDFW, as appropriate. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent. If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures would be included in and developed as part of the USFWS and CDFW coordination and consultation process. The plan would include information on responsible parties for long-term management, holders of conservation easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations.</p>	Before and during construction activities	During activities identified under "Mitigation Measure"	DWR and its construction contractor(s)	
<b>BIO-8</b>	<p><b>Avoid Effects to San Joaquin Kit Fox</b></p> <p>A qualified biologist would conduct pre-construction surveys no fewer than 14 days and no more than 30 days prior to the onset of any ground disturbing activity. The primary objective is to identify kit fox</p>	Before and during construction activities	During activities identified under "Mitigation Measure"	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>habitat features (e.g. potential dens and refugia) on the project site. If San Joaquin kit fox are detected at any time, all activities associated with the project would be halted immediately. The project would be placed on hold until consultation with the USFWS and CDFW is completed. Where potential dens are present, a 50-foot-wide buffer shall be placed to avoid and minimize disturbance to the species. Where known dens are present a 100-foot-wide buffer shall be placed to avoid and minimize disturbance to the species.</p> <p>If natal pupping dens are present or encroachment within a buffer is required, USFWS and CDFW would be consulted with to determine appropriate compensation measures for the loss of San Joaquin kit fox. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio or equivalent.</p>				
<b>BIO-9</b>	<p>Project activities would be carried out in a manner that minimizes adverse effects to San Joaquin kit foxes, should they occur in the project area. Minimization measures would include:</p> <ul style="list-style-type: none"> <li>• Construction work at night (half hour after sunset to half-hour before sunrise) will be avoided to the maximum extent possible.</li> <li>• To prevent inadvertent entrapment of San Joaquin kit fox or other animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the end of each workday. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks will be installed. Before such holes or trenches are filled, they will be inspected for trapped animals.</li> <li>• All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly inspected for San Joaquin kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a San Joaquin kit fox is discovered inside a pipe, that section of pipe will not be moved until USFWS has been consulted and CDFW contacted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.</li> <li>• Before the start of work each day, the work site will be checked for animals under any equipment to be used that day, such as vehicles or stockpiles of items such as pipes. If a San Joaquin kit fox is found, it will be allowed to leave on its own volition. Work will</li> </ul>	Before and during construction activities	During activities identified under "Mitigation Measure"	DWR and its construction contractor(s)	



Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>be halted, and DWR contacted. USFWS and CDFW will be notified within 48 hours.</p> <ul style="list-style-type: none"> <li>Sightings of San Joaquin kit fox will be reported to the California Natural Diversity Data Base.</li> </ul>				
<b>BIO-10</b>	<p><b>Compensate for Temporary or Permanent Loss of San Joaquin Kit Fox Habitat</b></p> <p>If San Joaquin kit fox habitat would be affected by the proposed project, a compensatory mitigation plan would be developed and implemented in coordination with USFWS and CDFW, as appropriate. Unavoidable effects would be compensated through a combination of creation, preservation, and restoration of habitat or purchase of credits at an approved mitigation bank at a minimum 1:1 ratio.</p> <p>If off-site compensation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures would be included in and developed as part of the USFWS and CDFW coordination and consultation process. The plan would include information on responsible parties for long-term management, holders of conservation easements, long-term management requirements, and other details, as appropriate, for the preservation of long-term viable populations.</p>	Before and during construction activities		DWR and its construction contractor(s)	
<b>BIO-11</b>	<p><b>Avoid Effects to Blunt-nosed Leopard Lizard</b></p> <p>No more than 12 months prior to geotechnical investigations and construction activities, a habitat assessment of the project footprint would be conducted by a qualified biologist to identify all habitat suitable for the lizard in the project footprint. Within twelve months prior to any ground-disturbing activity, qualified biologists would conduct surveys for blunt nosed leopard lizard in blunt-nosed lizard suitable habitats (e.g., areas containing burrows) within the Project area. These surveys would be conducted in accordance with the Approved Survey Methodology for the Blunt-Nosed Leopard Lizard (CDFW 2019), or other more recent guidelines, if available. In instances where blunt-nosed leopard lizards are observed at any time during presence/absence surveys, pre-construction surveys, or construction monitoring, USFWS and CDFW would be notified of the occurrence within two business days.</p>	Before the start of construction activities	Before and during construction activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
BIO-12	<p><b>Avoid Effects to American Badger</b> Preconstruction surveys by a qualified biologist would be conducted in areas supporting potentially suitable habitat and within 30 days before the start of construction activities.</p> <p>Occupied burrows would not be disturbed, if feasible. A 100-foot no-work buffer would be established around occupied maternity dens throughout the pup-rearing season (February 15 through July 1) and a 50-foot no-work buffer around occupied dens during other times of the year. If nonmaternity dens are found and cannot be avoided during construction activities, they will be monitored for badger activity. If a qualified biologist determines that dens may be occupied, passive den exclusion measures will be implemented for three to five days to discourage the use of these dens prior to project disturbance activities.</p>	Before and during construction activities	Before and during construction activities	DWR and its construction contractor(s)	
BIO-13	<p><b>Minimize Effects to American Badger</b> If an occupied burrow/den cannot be avoided, the individual shall be passively relocated by exclusion. Passive relocation techniques would be implemented. Relocation shall only occur outside of the breeding period of American badger.</p> <p>The project area would be monitored daily for 1 week to confirm badger departure from burrow before any ground-disturbing activities.</p> <p>Where possible, burrows would be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe would be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.</p> <p>A plan shall be coordinated with CDFW to offset burrow habitat and foraging areas on the project site if burrows and foraging areas are taken by the proposed project.</p>	During and after construction activities	During and after construction activities	DWR and its construction contractor(s)	
BIO-14	<p><b>Avoid and Minimize Effects to Migratory Bird Species</b> If work activities occur within the bird nesting season (generally defined as February 1 through September 1), a qualified biologist shall conduct a nesting bird survey no more than 14 days prior to initiation of ground disturbance. Survey areas will reflect the species type such as 300 feet for general songbird, 500 feet for raptors, and a quarter of a mile for listed raptor species. The survey shall be limited to areas with permitted access and shall not be conducted on private property without prior authorization. These surveys would be conducted in accordance with any required protocols.</p>	Before, during, and after construction activities	Before, during, and after construction activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged, as determined by a qualified biologist. Construction buffers shall be determined by a qualified biologist based on the location of the nest, species tolerance to human presence, and the type of construction activities being conducted. Typical buffers include 50-150 feet for passerines. Larger buffers may be required for species that are less tolerant to disturbances, such as raptors and special-status species. Activities requiring heavy equipment that generate ground vibrations and acute noises may require larger buffers, whereas finish work, such as electrical or manual work with hand tools may require a smaller buffer to adequately protect bird nests.</p> <p>If encroachment within a buffer is required, USFWS and CDFW would be consulted with to determine appropriate measures for avoidance and minimization of potential impacts. Mitigation may include presence of an on-site biologist to monitor nests during construction activities within buffers. If birds exhibit signs of stress or leave the nest for an extended period of time, construction within the buffer would halt until birds have fledged or an alternative strategy can be determined.</p>				
BIO-15	<p><b>Avoid and Minimize Effects to All Special Status Species and Resources</b></p> <p>Preconstruction surveys for all special status, rare, and endemic species and sensitive resources would be conducted by a qualified biologist within 30 days before the start of construction activities. If the optimal survey period for the species lies outside of the 30-day period, a focused survey will be conducted specific to the species. Appropriate no work buffers will be established around detections or the species or resource, if feasible.</p>	Before and during construction activities	Before and during construction activities	During and after construction activities	
CUL-1	<p><b>Archaeological Discovery Procedures</b></p> <p>Should any unexpected cultural resources be exposed during project activities, all work would temporarily stop in the immediate vicinity (e.g. 100 feet) of the find until it can be evaluated by a qualified archaeologist and an appropriate plan of action can be determined in consultation with DWR.</p> <p>If the resource is associated with Native American contexts or is a potential Tribal Cultural Resource and is within a region specified as an area of interest/concern by a consulting tribe/tribes, the</p>	After construction activities have occurred	During and after construction activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	appropriate consulting tribal entity/entities would be contacted and consulted with to produce an appropriate plan of action.				
<b>CUL-2</b>	<p><b>Health and Safety During a Discovery</b> Should human remains be discovered during the course of project activities, all work would stop immediately in the vicinity (e.g. 100 feet) of the finds until they can be verified. The coroner would be contacted in accordance with Health and Safety Code section 7050.5(b). Protocol and requirements outlined in Health and Safety Code sections 7050.5(b) and 7050.5(c) as well as Public Resources Code section 5097.98 will be followed.</p> <p>A copy of the approved SWPPP/WQCP shall be available at all times on the construction site.</p>	During construction activities	During dewatering and/or fill construction activities	DWR and its construction contractor(s)	
<b>CUL-3</b>	<p><b>Prepare and Implement Cultural Awareness Training</b> Prior to project construction, a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology and with expertise in California archaeology, in coordination with culturally affiliated California Native American Tribes, shall develop a Cultural Resources Awareness and Sensitivity Training Program for all construction and field workers involved in project ground-disturbing activities. The program shall include a presentation that covers, at a minimum, the types of cultural resources common to the area, regulatory protections for cultural resources, and the protocol for unanticipated discovery of archaeological resources (see Mitigation Measure CUL-2). Personnel working in areas of project ground-disturbing activities shall receive the training prior to working in these areas.</p>				
<b>GEO-1</b>	<p><b>Prepare and Implement a Storm Water Pollution Prevention Plan</b> DWR shall obtain coverage under the State Water Resources Control Board's National Pollutant Discharge Elimination System stormwater permit for general construction activity (Order 2009-0009-DWQ). If applicable, a project specific Storm Water Pollution Prevention Plan (SWPPP) would be prepared and submitted at the time the notice of intent to discharge is filed. If the project does not require the creation of a SWPPP under the CGP, a Water Quality Control Plan (WQCP) written by a Qualified Stormwater Developer and will be submitted by the contractor.</p> <p>Where applicable, BMPs identified in the SWPPP/WQCP shall be in place throughout all site work and construction activities.</p>	Before and during construction activities	Before and during construction activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	A copy of the approved SWPPP/WQCP shall be available at all times on the construction site.				
<b>GEO-2</b>	<b>Paleontological Sensitivity Training</b> Prior to any ground disturbing activities associated with the proposed Project, DWR shall retain and direct a Qualified Paleontologist, to prepare a paleontological resources awareness and sensitivity training program for all personnel involved in construction-related field activities. The training program shall include a presentation that covers, at a minimum, the types of paleontological resources that may be encountered, regulatory protections for paleontological resources, and of the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources (see Mitigation Measure GEO-3). The Qualified Paleontologist, or their designee, shall present the training at the initial kickoff or tailgate meeting. Subsequent trainings shall be given on an as-needed basis as new construction personnel join the project. DWR shall ensure that construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.	Before and during construction activities	Before and during construction activities	DWR and its construction contractor(s)	
<b>GEO-3</b>	<b>Unanticipated Discoveries of Paleontological Resources</b> In the event of the unanticipated discovery of paleontological resources at the proposed Project, DWR or its contractor shall immediately cease all work activities in the area (within approximately 100 feet) of the discovery until it can be assessed for significance by the Qualified Paleontologist. The Qualified Paleontologist shall assess the find, implement recovery and reporting measures, if necessary, and determine if paleontological monitoring is warranted once work resumes.	Before, during, and after construction activities	Before, during, and after construction activities	DWR and its construction contractor(s)	
<b>GHG-1</b>	<b>Green House Gas Reductions</b> Green House Gas reduction best management practices, as applicable: <ul style="list-style-type: none"> <li>Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.</li> </ul>	After construction activities have occurred		DWR and/or Reclamation and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<ul style="list-style-type: none"> <li>• Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.</li> <li>• Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.</li> <li>• Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.</li> <li>• Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.</li> <li>• Limit deliveries of materials and equipment to the site to off peak traffic congestion hours.</li> <li>• Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the state airborne toxics control measure, California Code of Regulations, Title 13, Section 2485). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement.</li> <li>• Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction.</li> <li>• Implement a tire inflation program on the job site to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation</li> </ul>				

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>program shall be documented in an Air Quality Management Plan prior to commencement of construction.</p> <ul style="list-style-type: none"> <li>• Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes.</li> <li>• Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.</li> <li>• For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box-type trailer is used for hauling, a SmartWay2 certified truck would be used to the maximum extent feasible.</li> <li>• Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate.</li> <li>• Develop a project specific construction debris recycling and diversion program to achieve a documented 50 percent diversion of construction waste.</li> <li>• Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution minimize, to the extent possible, uses of public roadways that would increase traffic congestion.</li> </ul>				
HYD-1	<p><b>Water Quality Best Management Practices</b></p> <p>Since project construction activities would disturb an area greater than an acre, the project would be subject to a Construction General Permit under the NPDES permit program of the federal Clean Water Act. As required under the Construction General Permit, DWR or its contractor would prepare and implement a SWPPP. If a SWPPP is not required under the Construction General Permit, the contractor would prepare a Water Quality Control Plan. The objective of a SWPPP/WQCP is to identify pollutant sources (such as sediment)</p>	Before, during, and after construction activities	Before and during construction activities	DWR and its construction contractor(s)	

Mitigation Number	Mitigation Measure	Mitigation Implementation Time Frame	Monitoring Time Frame	Responsibility for Verification of Compliance	Date Compliance Completed
	<p>that may affect the quality of storm water discharge and to implement BMPs to reduce pollutants in storm water.</p> <p>Erosion control BMPs would be used to prevent the degradation of water quality. Examples of erosion control BMPs are installing a silt fence, using fiber rolls, creating gravel bag berms, and creating sandbag or straw bale barriers. BMPs would also include practices for proper handling of chemicals, such as fueling away from waterways and overtopping during fueling, and installation of containment pans. Further, implementation of the construction BMPs would begin with the commencement of construction and continue through the completion of the project.</p> <p>During subsurface exploration, no equipment would be allowed to drip oil or fluids onto the ground. Visqueen or a similar type of plastic sheeting would be placed under any leaky or potentially leaky equipment to prevent contact with the ground. Any contaminated soil or rock resulting from leaking equipment would be removed. Straw wattles, berms, and visqueen would be used to control any runoff from exploration operations or precipitation during exploration.</p>				
<b>TCR-1</b>	<p><b>Tribal Monitoring</b></p> <p>A tribal monitor would be considered during the initial ground-disturbing activities of the project and in other instances as determined by DWR. The tribal monitor may be selected by the consulting tribe (s). If, during the course of ground- disturbing activities, the tribal monitor identifies a potential TCR, work in the immediate area would halt until the find is assessed by the monitor and a qualified archaeologist. An appropriate plan of action would be determined in consultation with DWR.</p>	Before and during construction activities	Before and during construction activities	Tribal Representative, DWR, and its construction contractor(s)	



**Notice of Determination****Appendix D****To:**

☒ Office of Planning and Research  
 U.S. Mail: \_\_\_\_\_ Street Address: \_\_\_\_\_  
 P.O. Box 3044 1400 Tenth St., Rm 113  
 Sacramento, CA 95812-3044 Sacramento, CA 95814

☐ County Clerk  
 County of: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_

**From:**

Public Agency: California Dept. of Water Resou  
 Address: PO Box 942836  
 Sacramento CA 94326  
 Contact: Shelly Amreihn  
 Phone: 916-661-1970

Lead Agency (if different from above): \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

***SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.***

State Clearinghouse Number (if submitted to State Clearinghouse): 2022030757

Project Title: California Aqueduct Milepost 230.6 to 231.4 Investigation, Design, And Repair

Project Applicant: California Department of Water Resources

Project Location (include county): Kern

**Project Description:**

The proposed project is investigation and maintenance of the State Water Project. DWR proposes to investigate, design, permit, and implement the following repairs to restore the California Aqueduct. The Project would include the following:

Geotechnical exploration, embankment reinforcement, embankment restoration, Aqueduct liner repairs, Aqueduct liner raise, and access road restoration.

This is to advise that the California Department of Water Resources has approved the above  
☒ Lead Agency or ☐ Responsible Agency

described project on 07/27/2022 and has made the following determinations regarding the above  
 (date)  
 described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

<http://ceqanet.opr.ca.gov/Project/2022030757>

Signature (Public Agency): Jerry Snow Title: Environmental Assessment Manager

Date: 7/28/2022 Date Received for filing at OPR: \_\_\_\_\_