

2023 Storm Damage, Department of Water Resources Levee Rehabilitation Repair Site 23-081

Mitigation Monitoring and Reporting Program

Merced County

California Department of Water Resources

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Prepared for:

California Department of Water Resources
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ACRONYMS AND OTHER ABBREVIATIONS

APE	Area of Potential Effects
BMPs	best management practices
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CRHR	California Register of Historical Resources
DWR	California Department of Water Resources
EC	Environmental Commitment
GGERP	Greenhouse Gas Emissions Reduction Plan
GHG	Greenhouse Gases
GM	General Measure
IS	Initial Study
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MM	Mitigation Measure
MND	Mitigated Negative Declaration
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
PRC	Public Resources Code
Refuge	Merced National Wildlife Refuge
SOIPQS	Secretary of the Interior's Professional Qualification Standards
SR	State Route
TCP	Traditional Cultural Property
TCR	Tribal Cultural Resource
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

MITIGATION MONITORING AND REPORTING PROGRAM

Introduction

This Mitigation Monitoring and Reporting Program (MMRP) summarizes the measures that the California Department of Water Resources (DWR) has adopted to mitigate and/or reduce, minimize, or avoid significant environmental impacts associated with the implementation of the levee repair and rehabilitation at Site 23-081 located in Merced County on the right bank (east levee) of the Eastside Bypass (proposed project). The repairs to this site would be approximately 2.4 miles (approximately 12,500 feet) in length and would occur between 37.16 degrees north, 120.61 degrees west and 37.13 degrees north, 120.59 degrees west. Mitigation measures and environmental commitments identified in this MMRP were developed as part of the Initial Study/Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act process for the proposed project (State Clearinghouse Number 2026010949).

The intent of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures, environmental commitments, and permit conditions. DWR will use this MMRP to verify compliance with the adopted mitigation measures and environmental commitments during project implementation. DWR is responsible for implementing and monitoring these measures. However, DWR may utilize a contractor for these services and/or make them part of the construction specifications.

DWR will provide for monitoring of levee repair activities as necessary, in-the-field identification and resolution of environmental concerns, and proper reporting in accordance with the measures summarized in the MMRP.

Compliance Checklist

The following table contains a compliance monitoring checklist that provides a synopsis of all adopted mitigation measures and environmental commitments, the entity responsible for implementation, the entity responsible for monitoring, and the timing of implementation. All the mitigation measures and environmental commitments presented in this MMRP have been approved by DWR and incorporated into the IS/MND and the proposed project. The numbers and letters of the impacts correspond to those identified in the Final IS/MND for the proposed project.

Table 1. Mitigation Monitoring and Reporting Program Compliance Checklist

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Air Quality				
<p>Impact 3.2.3 a) Conflict with or obstruct implementation of the applicable air quality plan and</p> <p>Impact 3.2.3 b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard</p>	<p>MM AQ-1. Implement Dust Control Measures on Unpaved Construction Roadways. DWR will include in the construction specifications the following requirements to be implemented by construction contractor(s) throughout the duration of construction at the project site:</p> <ul style="list-style-type: none"> • Implement three times daily watering of the unpaved roadways to be used for construction haul routes. • Limit construction vehicle travel speed on unpaved roadways to 10 miles per hour or less. 	Water unpaved roadways used as haul routes; limit construction vehicle speeds on unpaved roadways	Construction contractor / DWR	During construction
Biological Resources				
<p>Impact 3.2.4 a) 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 the California Department of Fish and Game or U.S. Fish and Wildlife Service (USFWS)</p>	<p>EC General Measure (GM)-01 Approved Biologist. DWR will submit to USFWS and the California Department of Fish and Wildlife (CDFW) in writing the name, qualifications, business address, and contact information of a biologist(s) (qualified biologist) and obtain approval of the biologist(s) before starting repairs. DWR will ensure that the qualified biologist is knowledgeable and experienced in the biology and natural history of all special-status species potentially occurring in the repair area. The qualified biologist will be responsible for monitoring repairs to help minimize and fully mitigate or avoid the incidental take of individual species and to minimize disturbance of species' habitats.</p>	Submit resumes of biologist(s)	DWR / Qualified biologist	Prior to start of construction activities
<p>Impact 3.2.4 a)</p>	<p>EC GM-02 Preconstruction Biological Surveys. Before the start of repair activities, a qualified biologist will conduct a preconstruction survey to identify if special-status species are present. Surveys will be conducted within the project footprint, laydown areas, and adjacent haul routes. If required, species and/or buffers will be marked in the field by a qualified biologist, using temporary fencing, high-visibility flagging, or other means that are equally effective.</p>	If required, mark species and/or buffers in the field, using temporary fencing, high-visibility flagging, or other means	DWR / Qualified biologist	Prior to start of construction activities
<p>Impact 3.2.4 a)</p>	<p>EC GM-03 Environmental Awareness Training. DWR will provide environmental awareness training by a qualified biologist to the DWR construction lead, construction foreman, crew leader, and any contractor personnel working on construction sites. Environmental awareness training will include descriptions of all species potentially occurring in the repair area for activity-specific training, species' habitats, and methods of identification, including visual aids as appropriate. The training also will describe activity-specific measures that will be followed to avoid impacts including the proper use of best management practices (BMPs) and applicable permit requirements to protect receiving water quality. Hard copies of environmental permits and training materials will be provided to the DWR construction lead, construction foreman, crew leader, and any contractors participating in the repair work.</p>	Develop environmental awareness training	DWR / Qualified biologist	Prior to start of construction activities
<p>Impact 3.2.4 a)</p>	<p>EC GM-04 Listed Species Take Reporting. A qualified biologist will immediately notify DWR if a species is taken or injured by a repair-related activity, or if a species is otherwise found dead or injured in the repair site vicinity. DWR will provide initial notification to USFWS and other appropriate agencies (CDFW). The initial notification will include information regarding the location, species, number of animals taken or injured, and site number. Following initial notification, DWR will submit a written report within two calendar days. The report will include the date and time of the finding or incident, location of the animal or carcass, and if possible, will provide a photograph, explanation as to cause of take or injury, and any other pertinent information.</p>	Notify DWR if species is taken or injured by a repair-related activity; DWR to provide initial notification to CDFW and/or USFWS and other appropriate agencies	Qualified biologist / DWR	During construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	EC GM-05 Environmentally Sensitive Area Delineation. Before the start of repair activities, the qualified biologist will identify potential riparian habitat and wetlands and other waters. Where feasible, DWR will mark the boundaries of these areas using temporary fencing, high-visibility flagging, or other means that are equally effective in clearly delineating the boundaries, and repair activities will be excluded from these areas to the extent possible. A qualified biologist will monitor the fencing installation.	Mark the boundaries of riparian habitat and waters using temporary fencing, high-visibility flagging, or other means	DWR / Qualified biologist	Prior to construction
Impact 3.2.4 a)	EC GM-06 Invasive Plant Species Control. DWR will implement measures to minimize the potential for invasive plants to be introduced or spread during repair activities. Measures to avoid contamination and spread of invasive species will be created for each site, as deemed necessary by a qualified biologist, and will be approved by a qualified biologist before implementation.	Minimize the potential for invasive plants	Qualified biologist / DWR	Prior to and during construction
Impact 3.2.4 a)	EC GM-07 Resource Agency Access. DWR will provide USFWS and CDFW staff with reasonable access to the site and otherwise will fully cooperate with the natural resource agencies' efforts to verify compliance with, or effectiveness of, conservation measures.	Provide reasonable access to the project site to USFWS and CDFW staff	Construction contractor / DWR / agency staff	During construction
Impact 3.2.4 a)	EC GM-08 Stop Work Authority. A qualified biologist will be authorized to stop repair activities that, in the biologist's opinion, threaten to cause unanticipated and/or unpermitted adverse effects on special-status wildlife. If repair activities are stopped, the qualified biologist will consult with USFWS or CDFW as appropriate to determine appropriate measures that DWR will implement to avoid adverse effects. Buffers will be maintained until a threat of disturbance to the sensitive biological resource no longer exists, as determined by a qualified biologist.	Stop construction activities if special-status species may experience unanticipated adverse effect	Qualified biologist/ construction contractor / DWR	During construction
Impact 3.2.4 a)	EC GM-09 Staging and Access. Existing staging sites, maintenance toe roads, and levee crown roads will be used to the extent practicable for staging and access, to avoid affecting previously undisturbed areas. The number of access routes and the size of staging and work areas will be limited to the minimum necessary to conduct the repair activity.	Limit staging areas and access to the minimum area and existing sites/roads, where practicable	Construction contractor / DWR	During construction
Impact 3.2.4 a)	EC GM-10 Construction Area Limit Delineation. Where feasible and practicable (e.g., based on the size of the repair area and repair to be performed), work area limits will be clearly marked (e.g., with flagging or fencing), including access roads; staging and equipment storage areas; stockpile areas for spoil disposal, soil, and materials; fueling and concrete washout areas; and equipment exclusion zones. Work will occur only within the marked limits. This measure is intended to apply to repair activities occurring in discrete areas as opposed to activities occurring over an extensive area where flagging work limits will be infeasible.	Clearly mark work area limits	Construction contractor / DWR	During construction
Impact 3.2.4 a)	EC GM-11 Equipment Inspection. Inspections will be conducted under all vehicles and heavy equipment for the presence of wildlife before the start of each workday when equipment is staged overnight. In addition, a search for wildlife will be conducted in all equipment and materials that have been stored on site for one or more nights before they are moved.	Conduct inspections under vehicles and heavy equipment for the presence of wildlife	Construction contractor / DWR	Before the start of each workday
Impact 3.2.4 a)	EC GM-12 Open Excavation Covering. All excavated, steep-walled holes or trenches will be covered with appropriate covers (thick metal sheets or plywood) at the end of each workday. Covers will be placed to ensure that trench edges are fully sealed. Alternatively, such trenches may be furnished with one or more escape ramps, constructed of earth fill or wooden planks, to provide an escape for wildlife.	Cover all excavated, steep-walled holes or trenches with appropriate covers or furnish with ramps	Construction contractor / DWR	At the end of each workday
Impact 3.2.4 a)	EC GM-13 Construction Site Best Management. All project-related trash items, such as wrappers, cans, bottles, and food scraps, will be collected in closed containers that are removed from the rehabilitation site each day and disposed at an appropriate off-site location to minimize attracting wildlife to work areas.	Dispose of all trash at an appropriate off-site location	Construction contractor / DWR	At the end of each workday

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	EC GM-14 Clearing and Grubbing Best Management. Clearing of vegetation will be kept to the minimum necessary. DWR will minimize ground and vegetation disturbance by establishing designated equipment staging areas, access routes, spoils and soil stockpile areas, and equipment exclusion zones before the start of repair activity.	Minimize clearing of vegetation	Construction Contractor / DWR	During construction
Impact 3.2.4 a)	EC GM-15 Erosion Control Materials. If erosion control fabrics are used, products will not be used with plastic monofilament or cross-joints in the netting that are bound/stitched (e.g., straw wattles, fiber rolls, or erosion control blankets), which could trap wildlife.	Do not use erosion control fabric which could trap wildlife	Construction contractor / DWR	During construction
Impact 3.2.4 a)	EC GM-16 Site Restoration. Temporary fill, construction debris, and refuse will be removed and properly disposed, following completion of any repair activities.	Remove all construction debris and refuse	Construction contractor / DWR	Following construction
Impact 3.2.4 a), Impact 3.2.4 b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or USFWS, and Impact 3.2.4 c) Have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means	EC BIO-01 Aquatic Resources. Wetlands and other waters will be avoided to the extent feasible. Where permanent impacts to waters of the U.S. cannot be feasibly avoided, DWR would compensate for impacts at a ratio agreed upon by applicable agencies, such as the U.S. Army Corps of Engineers (USACE), USFWS, the Central Valley Regional Water Quality Control Board, and/or CDFW, through purchase of credits at an agency-approved mitigation or conservation bank; and/or payment of in-lieu fees through the in-lieu fee program of the Sacramento District of the USACE and administered by the National Fish and Wildlife Foundation.	Compensate for or provide funding assurance for compensation for permanent impacts to waters of the U.S.	DWR	Prior to construction
Impact 3.2.4 a)	EC BIO-02 Crotch's Bumblebee Protection. If repair activities may adversely affect Crotch's bumblebee (<i>Bombus crotchii</i>), DWR would implement the following measures: 1. Preconstruction Surveys: Prior to the initiation of vegetation clearing or ground disturbance, a qualified biologist will survey the site for Crotch's bumblebees and their nest sites. 2. Crotch's Bumblebee Nest Avoidance: If active nest sites are found during preconstruction surveys, the qualified biologist will establish and clearly mark an appropriate no-disturbance buffer around the nest, and construction personnel will be trained to avoid these zones while the nest site is active.	Conduct preconstruction surveys; mark a no-disturbance buffer around any active nests; avoid buffers while the nest is active	Qualified biologist / DWR / construction contractor	Prior to and during construction
Impact 3.2.4 a)	EC BIO-03 Monarch Butterfly Protection. If repair activities may adversely affect monarch butterfly (<i>Danaus plexippus</i>), DWR would implement the following measures: 1. Preconstruction Surveys: If vegetation clearing is scheduled between May and October, a qualified biologist will survey the site for monarch butterfly larval host plants, specifically milkweed (<i>Asclepias</i> spp.), in suitable habitats. If host plants are found, the biologist will either conduct surveys to determine the presence or absence of adult monarch butterflies and inspect milkweed for monarch eggs, larvae, and pupae, or assume their presence. 2. Wildlife Exclusion Fencing: If butterfly eggs, larvae, or pupae are confirmed, or assumed to be present, host plants will be clearly marked with fencing or signage, and construction personnel will be trained to avoid these zones. No equipment or personnel will be allowed within these designated no-work zones during the flight season to prevent accidental damage. 3. Milkweed removal: If the absence of butterfly eggs, larvae, and pupae is confirmed by a qualified biologist, host plants within the work limits may be removed to minimize the potential for take.	Conduct preconstruction surveys; mark a no-disturbance buffer around any occupied host plants; avoid buffers while the host plant is occupied	Qualified biologist / DWR / construction contractor	Prior to and during construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	<p>EC BIO-04 Western Spadefoot Protection. If repair activities may adversely affect western spadefoot (<i>Spea hammondi</i>), DWR would implement the following measures:</p> <ol style="list-style-type: none"> Timing of Activities: The proposed project will be scheduled to minimize adverse effects on the western spadefoot and its habitat. Disturbance to upland habitat will be confined to the dry season, generally late spring through fall (or the first measurable fall rain of 1 inch or greater), because that is the time period when western spadefoot are less likely to be moving through upland areas. To the maximum extent practicable, no construction activities will occur during rain events (greater than 0.25 inch of rainfall per 24-hour period) or within 24 hours following a rain event. DWR will monitor the National Weather Service (NWS) 72-hour forecast for the project area. Prior to construction activities resuming after a rain event, a qualified biologist will inspect the project site and all equipment/materials for the presence of western spadefoot. Construction may continue 24 hours after the rain ceases if no precipitation is forecasted within 24 hours. If rain exceeds 0.25 inch during a 24-hour period, work will cease until no further rain is forecasted. USFWS may approve modifications to this timing on a case-by-case basis. Preconstruction Habitat Surveys: Surveys will be conducted in areas with suitable habitat by the qualified biologist within 15 days prior to any ground-disturbing construction. These surveys will flag any concentrations of suitable small mammal burrows. Wildlife Exclusion Fencing: After the preconstruction habitat surveys, exclusion fencing will be erected along each section of the project area before project activities begin, including staging equipment and supplies. Fencing will be a minimum of 3 feet high and buried in the soil or forming a tight seal with the pavement to prevent western spadefoot from crawling under and entering the project area. Preconstruction Surveys: No more than 24 hours prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a pre-construction survey of the project site. The survey will consist of walking all suitable habitat within the project site to determine possible presence of western spadefoot. Western Spadefoot Encounters: If a western spadefoot is encountered during construction, all activities within a 50-foot radius of the animal will stop, and the qualified biologist will be immediately notified. The animal will be allowed to move out of the area upon its own volition, or the qualified biologist will use appropriate handling methods to relocate it to a location approved by CDFW. Biological Monitoring: A qualified biologist will be on site during all grading activities, vegetation removal activities, and trenching activities. A qualified biologist will be onsite and monitor all locations where repairs will alter potential western spadefoot hibernacula/refugia (burrows, vegetation, etc.). 	<p>Schedule construction in upland habitat during the dry season; conduct preconstruction surveys; erect exclusion fencing around work areas; monitor grading activities that will alter potential refugia</p>	<p>Qualified biologist / DWR / construction contractor</p>	<p>Prior to (preconstruction surveys within 15 days and within 24 hours of construction) and during construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
<p>Impact 3.2.4 a)</p>	<p>EC BIO-05 California Tiger Salamander Protection. If repair activities may adversely affect California tiger salamander (<i>Ambystoma californiense</i>), DWR would implement the following measures:</p> <ol style="list-style-type: none"> USFWS-approved Biologist: DWR will retain a USFWS-approved biologist (qualified biologist) with a Section 10(a)(1)(A) Recovery Permit to conduct terrestrial surveys and, if needed, handle California tiger salamanders. Timing of Activities: The proposed project will be scheduled to minimize adverse effects on the California tiger salamander and its habitat. Disturbance to upland habitat will be confined to the dry season, generally late spring through fall (or the first measurable fall rain of 1 inch or greater) because that is the time period when California tiger salamanders are less likely to be moving through upland areas. To the maximum extent practicable, no construction activities will occur during rain events (greater than 0.25 inch of rainfall per 24-hour period) or within 24 hours following a rain event. DWR will monitor the NWS 72-hour forecast for the project area. Prior to construction activities resuming after a rain event, a qualified biologist will inspect the project site and all equipment/materials for the presence of California tiger salamanders. Construction may continue 24 hours after the rain ceases if no precipitation is forecasted within 24 hours. If rain exceeds 0.25 inch during a 24-hour period, work will cease until no further rain is forecasted. USFWS may approve modifications to this timing on a case-by-case basis. Preconstruction Habitat Surveys: The qualified biologist will conduct surveys in areas with suitable habitat within 15 days prior to any ground-disturbing construction. These surveys will flag any concentrations of small mammal burrows potentially suitable for use as refugia. The qualified biologist will monitor these flagged areas during initial levee excavation. Wildlife Exclusion Fencing: After the preconstruction habitat surveys, exclusion fencing will be erected along each section of the project site before project activities begin, including staging equipment and supplies. Fencing will be a minimum of 3 feet high and buried in the soil or forming a tight seal with the pavement to prevent California tiger salamanders from crawling under and entering the project area. Preconstruction Surveys: No more than 24 hours prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a preconstruction survey of the project site. The survey will consist of walking all upland habitat within the project site to determine possible presence of California tiger salamanders. If a lapse in project construction activities of 14 days or longer occurs, the qualified biologist will repeat surveys in areas with suitable habitat. California Tiger Salamander Encounters: If a California tiger salamander is encountered during construction, all activities within a 50-foot radius of the animal will stop. If the animal is traveling, the animal will be allowed to move away upon its own volition. If occupied refugia are found during levee excavation, the qualified biologist will be immediately notified, and the qualified biologist will follow appropriate handling methods for California tiger salamander to relocate the California tiger salamander individuals to CDFW and USFWS previously approved location(s), such as the Merced National Wildlife Refuge (Refuge). Biological Monitoring: The need for biological monitoring will be determined by the qualified biologist. The qualified biologist will be on site during all grading activities, vegetation removal activities, and trenching activities. A qualified biologist will be onsite and monitor all locations where repairs will alter potential California tiger salamander hibernacula/refugia (burrows, vegetation, etc.). Biological monitoring will be conducted by a qualified biologist. 	<p>Retain a qualified biologist; schedule construction in upland habitat during the dry season; conduct preconstruction surveys; erect exclusion fencing around work areas; monitor grading activities that will alter potential refugia</p>	<p>Qualified biologist / DWR / construction contractor</p>	<p>Prior to (preconstruction surveys within 15 days and within 24 hours of construction) and during construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	<p>EC BIO-06 Northwestern Pond Turtle Protection. If repair activities may adversely affect northwestern pond turtle (<i>Actinemys marmorata</i>), DWR would implement the following measures:</p> <ol style="list-style-type: none"> Preconstruction Surveys: A qualified biologist will survey the work site no more than 48 hours before the onset of activities for signs of northwestern pond turtles; during the nesting season (roughly May through July), the biologist will also survey for northwestern pond turtle nesting activity (i.e., recently excavated nests, nest plugs) or nest depredation (partially to fully excavated nest chambers, nest plugs, scattered egg shell remains, egg shell fragments). Preconstruction surveys to detect northwestern pond turtle nesting activity will be concentrated within 1,319 feet of suitable aquatic habitat and will focus on areas along south- or west-facing slopes with bare hard-packed clay or silt soils or sparse vegetation of short grasses or forbs. If northwestern pond turtles or their nest sites are found, the biologist will contact CDFW to determine whether relocation and/or exclusion buffers and nest enclosures are appropriate. If CDFW approves of moving the animal, the biologist will be allowed sufficient time to move the northwestern pond turtle(s) from the work site before work activities begin. Wildlife Exclusion Fencing: After the preconstruction habitat surveys, Exclusion fencing will be erected along each section of the project area before project activities begin, including staging equipment and supplies. Fencing will be a minimum of 3 feet high and buried in the soil or forming a tight seal with the pavement to prevent northwestern pond turtles from crawling under and entering the project area. Northwestern Pond Turtle Encounters: If a northwestern pond turtle is encountered during construction, all activities within a 50-foot radius of the animal will stop, and the qualified biologist will be immediately notified. The animal will be allowed to move out of the area upon its own volition, or the qualified biologist will use appropriate handling methods to relocate it to a location approved by CDFW. Biological Monitoring: The need for biological monitoring will be determined by the qualified biologist. The type of work occurring, weather, time of year, and site conditions, will be considered when determining need. 	Conduct preconstruction surveys; erect exclusion fencing around work areas; monitor construction activities as needed	Qualified biologist / DWR / construction contractor	Prior to (preconstruction surveys no more than 48 hours before) and during construction
Impact 3.2.4 a)	<p>EC BIO-07 Special-Status Plants. If repair activities may adversely affect special-status plants, DWR would implement the following measures:</p> <ol style="list-style-type: none"> Preconstruction Surveys: Before the start of repair activities, a qualified botanist will survey suitable habitat within the repair limits and a 10-foot buffer during the appropriate identification period for special-status plants with the potential to be present. Survey methods will be consistent with <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities</i> (CDFW 2018). Preconstruction surveys will be conducted by a qualified biologist within 14 days prior to the start of construction. Special-status Plant Flagging: If special-status plants are documented within the project site, the plants and a 10-foot buffer will be flagged or otherwise marked (e.g., fenced) for avoidance. A qualified biologist will monitor any project activities that must occur within the buffer. Compensation: If special-status plants cannot be avoided during project construction, USFWS and/or CDFW will be consulted, as appropriate, to determine compensation measures for the loss of special-status plants. Measures may include establishment of off-site populations, preservation and enhancement of existing populations, restoration of suitable habitat, or the purchase of credits at an approved mitigation bank. 	Conduct preconstruction surveys; mark a no-disturbance buffer around any special-status plants; avoid buffers where possible or determine appropriate compensation for unavoidable impacts	Qualified biologist / DWR / construction contractor	Prior to (preconstruction surveys within 14 days of construction) and during construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	<p>EC BIO-08 Nesting Bird Surveys. If repair activities may adversely affect nesting bird species, DWR would implement the following measures:</p> <ol style="list-style-type: none"> Timing of Activities: If repair activities occur during the nesting period for birds (February 1 to September 15), DWR will complete pre-activity surveys for nesting birds (including ground-nesting birds). Surveys will be conducted by a qualified biologist no more than 5 days prior to the start of activities. Surveys will be conducted within suitable nesting habitat that could be affected by repair activities (e.g., staging areas, spoils areas, access routes) and will include a 500-foot buffer (or 0.25-mile buffer where suitable burrowing owl [<i>Athene cunicularia</i>] or Swainson’s hawk [<i>Buteo swainsoni</i>] nesting habitat is present) surrounding these areas. Where appropriate, pre-activity surveys will follow established survey protocols or guidelines. Active Nests: If active nests are found, DWR will establish an avoidance buffer as indicated below for activities that would potentially affect the nesting birds. The temporary disturbance buffer will be established until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the activities. Alternatively, a qualified biologist, in coordination with the appropriate natural resource agency, may determine that a buffer is not required to avoid adverse effects on nesting birds, based on the specific activities to be conducted and species present. <ul style="list-style-type: none"> – Passerines: 100-foot buffer – Herons/Egrets: 200-foot buffer – Tricolored blackbird (<i>Agelaius tricolor</i>): 250-foot buffer – Raptors (including northern harrier [<i>Circus hudsonius</i>]): 300-foot buffer – Burrowing owl: 1,640-foot buffer (500 meters) – Swainson’s hawk: 1,320-foot buffer (0.25 mile) 	Conduct preconstruction surveys; establish an avoidance buffer around any active nests; avoid construction activities within buffers	Qualified biologist / DWR / construction contractor	Prior to (preconstruction surveys within 5 days of construction) and during construction
Impact 3.2.4 a)	<p>EC BIO-09 American Badger Protection. If repair activities may adversely affect American badger (<i>Taxidea taxus</i>), DWR would implement the following measures:</p> <ol style="list-style-type: none"> Preconstruction Surveys: No more than 3 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a preconstruction survey of the project site. The survey will consist of walking all suitable habitat within the project site to determine possible presence of active American badger dens. American Badger Den Avoidance: If an active American badger den is identified during the preconstruction surveys, an appropriate buffer, as determined by the qualified biologist, will be flagged or otherwise marked (e.g., fenced) for avoidance, and construction personnel will be trained to avoid this area. American Badger Encounters: If an American badger is encountered during construction, all activities within a 50-foot radius of the animal will stop. The qualified biologist will be immediately notified, and the biologist will monitor the individual until it leaves the site of its own volition. 	Conduct preconstruction surveys; establish an avoidance buffer around any active dens; avoid construction activities within buffers	Qualified biologist / DWR / construction contractor	Prior to (preconstruction surveys within 3 days of construction) and during construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Biological Resources (continued)				
Impact 3.2.4 a)	<p>EC BIO-10 San Joaquin Kit Fox Protection. If repair activities may adversely affect San Joaquin kit fox (<i>Vulpes macrotis mutica</i>), DWR would implement the following measures:</p> <ol style="list-style-type: none"> Preconstruction Surveys: No more than 3 days prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist will conduct a preconstruction survey of the project site. The survey will consist of walking all suitable habitat within the project site to determine possible presence of active San Joaquin kit fox dens. San Joaquin Kit Fox Den Avoidance: If San Joaquin kit fox or an active den is identified during the preconstruction surveys, DWR will notify CDFW and USFWS within 24 hours. An appropriate buffer around an active den, as determined by the qualified biologist in consultation with CDFW and USFWS, will be flagged or otherwise marked (e.g., fenced) for avoidance, and construction personnel will be trained to avoid this area. San Joaquin Kit Fox Encounters: If San Joaquin kit fox is encountered during construction, all activities within a 100-foot radius of the animal will stop. The qualified biologist will be immediately notified, and the biologist will monitor the individual until it leaves the site of its own volition. DWR will notify CDFW and USFWS within 24 hours of a San Joaquin kit fox observation during work activities. Construction Vehicle Use: Project-related vehicles will observe a daytime speed limit of 20 miles per hour (mph) throughout the project site. Nighttime construction will be minimized to the extent possible. However, if it does occur, speed limits will be reduced to 10 mph. Off-road vehicle use outside the designated project site will be prohibited. Biological Monitoring: The need for biological monitoring will be determined by the qualified biologist. The type of work occurring, weather, time of year, and site conditions will be considered when determining need. 	Conduct preconstruction surveys; establish an avoidance buffer around any active dens; avoid construction activities within buffers; observe construction speed limits; monitor construction activities as needed	Qualified biologist / DWR / construction contractor	Prior to (preconstruction surveys within 3 days of construction) and during construction
Cultural Resources				
<p>Impact 3.2.5 b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 and</p> <p>Impact 3.2.5 c) Disturb any human remains, including those interred outside of formal cemeteries</p>	<p>MM CUL-1. Preconstruction Training. Prior to construction, a qualified archaeologist with expertise in California archaeology will develop an archaeological resources training program in consultation with interested Tribes and present to all construction and field personnel. Only personnel who have received the training will be allowed to access the Area of Potential Effects (APE). Topics may include the potential presence and type of Native American and non-Native American resources that might be found during operations associated with construction, and necessary reporting protocols in the event of an inadvertent discovery. Written materials will be provided to personnel as appropriate.</p>	Develop an archaeological resources training program in consultation with interested Tribes; present to all construction and field personnel	Qualified archaeologist / DWR	Prior to construction
Impacts 3.2.5 b) and c)	<p>MM CUL-2. Conduct Monitoring at Locations Identified by Native Americans as Sensitive. Native American monitoring may be conducted at sensitive locations under agreements between DWR and culturally affiliated Native American Tribes. DWR may include qualified tribal monitors during certain construction activities. The decision to do so is based on the nature of the activity and the cultural sensitivity of the specific location. Tribal monitors would be required to submit reports, and the results be maintained by DWR to determine the need for additional surveys related to future activities in the area. If cultural materials are encountered during construction, Mitigation Measure CUL-2 and CUL-3 will be implemented.</p>	Tribal monitors present at sensitive sites will submit reports to DWR for determination of additional surveys	DWR	Prior to and during construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Cultural Resources (continued)				
<p>Impacts 3.2.5 b) and c)</p>	<p>MM CUL-3. Archaeological Monitoring and a Plan for Inadvertent Discovery of Archaeological Resources. Archaeological monitoring will occur when ground-disturbing activities occur at the proposed project repair site given the high potential for unknown archaeological resources. Monitoring will be conducted by or supervised by a qualified archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards (SOIPQS). A Monitoring Plan will be developed that includes the following components:</p> <ul style="list-style-type: none"> • Person(s) responsible for conducting monitoring activities; • Person(s) responsible for overseeing and directing the monitors; • How the monitoring will be conducted at the repair site and the required format and content of monitoring reports; • Schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; • Protocol for notifications in the event inadvertent discoveries are encountered (e.g., collection, identification, curation); • Methods to ensure security and protection of cultural resources; • A protocol for notifying local authorities (i.e., Sheriff, Police) should site looting or other illegal activities occur during project implementation. • The archaeologist in collaboration with the Tribal monitor, if present, may adjust the frequency of monitoring (e.g., from continuous to intermittent) based on the conditions and professional judgment regarding the potential to impact cultural resources. • Contact information for all responsible personnel identified in the Plan <p>If Native American or historic-period resources are encountered, all activity within 100 feet of the find will immediately halt until it can be evaluated by a SOIPQS archaeologist (and a Native American representative if the artifacts are precontact). DWR will be notified, and a SOIPQS archaeologist will inspect the findings within 24 hours of discovery. If it is determined that project activities could damage a significant cultural resource, DWR will re-design the proposed project to avoid any adverse effects. If avoidance is not feasible, a qualified archaeologist will prepare and implement a detailed Archaeological Resources Management Plan in consultation with the State Historic Preservation Officer and, for Native American resources, the appropriate Native American Tribal representative.</p> <p>In considering any suggested mitigation proposed by the archaeologist and Native American representative, DWR will determine whether avoidance is feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is not feasible, other appropriate measures (e.g., data recovery as agreed upon between DWR, the archaeological consultant, and Native American representatives) will be instituted. DWR may re-instate work in other parts of the project site outside of designated culturally sensitive areas, while identifying appropriate management of resources.</p>	<p>Monitor for inadvertent archaeological resource discovery pursuant to developing and implementing a Monitoring Plan; stop work within 100 feet if prehistoric or historic-era archaeological resource is discovered</p>	<p>DWR / Qualified archaeologist</p>	<p>During construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Cultural Resources (continued)				
Impacts 3.2.5 b) and c)	<p>MM CUL-4. Inadvertent Discovery of Human Remains. If an inadvertent discovery of human remains is made during project-related construction activities or project planning, DWR will implement the procedures listed below. Should human remains be identified in the project APE, the following performance standards will be met prior to implementing or continuing actions such as construction, that may result in damage to or destruction of human remains. Avoiding or substantially lessening potential significant impacts to human remains or implementation of the procedures described below maybe considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less than significant may be reached:</p> <ul style="list-style-type: none"> • In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all work will halt within 100 feet of the maximum extent of the find. The Construction Lead or on-site inspector will immediately notify DWR. DWR notify the Merced County Coroner and a professional archaeologist to determine the nature of the remains. • The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the Coroner determines that the remains are those of a Native American in ancestry, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). • After the Coroner’s findings have been made, a qualified archaeologist who meets the SOIPQS and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, will determine the ultimate treatment and disposition of the remains. • The responsibilities of DWR for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq. <p>Upon the discovery of Native American human remains, DWR will require that all construction work must stop within 100 feet of the discovery until consultation with the MLD has taken place. The MLD will have 48 hours to complete a site inspection and make recommendations to the landowner after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC Section 5097.98(b)(2) suggests that the concerned parties may mutually agree to extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. Site-protection measures that DWR will employ are as follows:</p> <ul style="list-style-type: none"> • Record the site with the NAHC or the appropriate Information Center; and Record a document with the County in which the property is located; • If agreed to by the MLD and the landowner, DWR or DWR’s authorized representative will work with the landowner and MLD to rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify an MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. DWR or DWR’s authorized representative may also reinter the remains in a location not subject to further disturbance if he or she rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to DWR. Mitigation may still be needed if impacts occur to those burials; DWR will consult with the MLD to identify appropriate mitigation. • If the human remains are of historic age and are determined to be not of Native American origin, DWR will follow the provisions of the California Health and Safety Code Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains. 	Stop work within 100 feet of unanticipated human remains; contact DWR; DWR to contact the Coroner	Construction contractor / DWR	During construction; upon the discovery of Native American human remains until consultation with MLD has taken place

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Geology and Soils				
<p>Impact 3.2.7 f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature</p>	<p>MM GEO-1. Preconstruction Training and a Recovery Plan for Inadvertent Discovery of Paleontological Resources. Prior to the start of earthmoving activities associated with the proposed project, DWR will do the following:</p> <ol style="list-style-type: none"> 1. Retain the services of either a qualified archaeologist or a qualified paleontologist to provide training to all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. 2. If paleontological resources are discovered during earthmoving activities, the construction crew will immediately cease work within 100 feet of the find and will notify DWR. 3. If paleontological resources are discovered, DWR will retain a qualified paleontologist to evaluate the resource and prepare and implement a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. The recovery plan will be submitted to DWR for review and approval. Recommendations in the recovery plan will be implemented before construction activities can resume at the site where the paleontological resource(s) were discovered. 4. If any substantially complete fossil skeletons are recovered from the project site, DWR will consider donating the fossil remains for public display at the Fossil Discovery Center in Chowchilla at 19450 Ave 21 ½ (Telephone: 559-665-7107 or website: https://www.maderamammoths.org/home.html). 	<p>Retain a qualified archaeologist or paleontologist; provide training to all construction personnel; stop work within 100 feet of unanticipated paleontological resources; implement a recovery plan</p>	<p>DWR / construction contractor / Qualified archaeologist or paleontologist</p>	<p>Prior to and during construction; upon the discovery of a paleontological resource</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Greenhouse Gas (GHG) Emissions				
<p>Impact 3.2.8 a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and</p> <p>Impact 3.2.8 b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases</p>	<p>MM GHG-1. Implement DWR BMPs for Construction Practices. The following Greenhouse Gas Emissions Reduction Plan (GGERP) BMPs will be implemented as part of construction activities associated with the proposed project:</p> <ul style="list-style-type: none"> • BMP 1. Evaluate project characteristics, including location, project workflow, 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. • BMP 2. Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines. • BMP 3. 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. • BMP 6. Limit deliveries of materials and equipment to the site to off peak traffic congestion hours. • BMP 8. 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 • BMP 9. 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 [Title 13, Section 2485 of the California Code of Regulations]). 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. • BMP 11: Implement tire inflation program on jobsite 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 will be documented as required in Air Quality Control Plans. • BMP 10. 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 will be detailed as required by Air Quality Control Plans. • BMP 14. 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 SmartWay certified truck will be used to the maximum extent feasible. 	<p>Implement GGERP BMPs</p>	<p>Construction contractor / DWR</p>	<p>During construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Hydrology and Water Quality				
<p>Impact 3.2.10 a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality and</p> <p>Impact 3.2.10 c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:</p> <ul style="list-style-type: none"> i) Result in substantial erosion or siltation on- or off-site; and iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff 	<p>EC Water Quality. DWR would install appropriate BMPs to reduce the potential release of water quality pollutants to receiving waters through the implementation of BMPs and compliance with applicable permits. BMPs may include the following measures:</p> <ol style="list-style-type: none"> 1. DWR will conduct environmental awareness training to train the contractor on the proper use of BMPs and applicable permit requirements to protect receiving water quality. 2. DWR will install erosion control measures, such as use of straw bales, silt fences, fiber rolls, or equally effective measures, at project locations adjacent to stream channels, drainage canals, and wetlands, as needed. During active construction activities, erosion control measures will be monitored during and after each storm event for effectiveness. Modifications, repairs, and improvements to erosion control measures will be made as needed to protect water quality. 3. DWR will restrict work to periods of low rainfall (less than ¼-inch per 24-hour period) and periods of dry weather (with less than a 50% chance of rain). DWR will monitor the NWS 72-hour forecast for the project area. No work will occur during a dry-out period of 24 hours after the above-referenced wet weather. 4. DWR will minimize ground and vegetation disturbance by establishing designated equipment staging areas, access routes, spoils and soil stockpile areas, and equipment exclusion zones prior to the commencement of activity. 5. DWR will prepare and implement a hazardous materials management and spill response plan. DWR will ensure any hazardous materials are stored at the staging areas and with an impermeable membrane between the ground and hazardous material, and that it is bermed to prevent the discharge of pollutants to groundwater and runoff water. DWR will immediately stop, and pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean-up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so, according to the prepared spill response plan. DWR will notify USFWS and CDFW, within 24 hours of any leaks or spills. DWR will properly contain and dispose of any unused or leftover hazardous products off site. DWR will use and store hazardous materials, such as vehicle fuels and lubricants, in designated staging areas located away from stream channels and wetlands according to local, state, and federal regulations, as applicable. 6. Construction vehicles and equipment will be checked daily for leaks and will be properly maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. 	<p>Implement appropriate BMPs to reduce the potential release of water quality pollutants to receiving waters</p>	<p>Construction contractor / DWR</p>	<p>Prior to and during construction</p>
<p>Impact 3.2.10 d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation</p>	<p>MM HYD-1. Construct in the Dry and Coordinate with Lower San Joaquin Levee District in November. Project-related construction activities are currently planned from May 15 through November 30 over a single construction season. The contractor will construct levee repairs in the dry on the levee slope within the limits of work to reduce the risk of release of pollutants into the water and reduce the risk of potential inundation. All construction activities, personnel, equipment, and repair materials within the limits of work will avoid potential inundation during construction because construction will occur in the dry between May 15 and July 15 and after November 1. In addition, DWR or the contractor, will coordinate with the Lower San Joaquin Levee District and the Central Valley Flood Protection Board between May 15 and July 15 and between November 1 through November 30 regarding the expected water levels in the Eastside Bypass.</p>	<p>Construct during the dry season; coordinate water levels with the Lower San Joaquin Levee District</p>	<p>Construction contractor / DWR</p>	<p>Construction during the dry season; coordination between May 15 and July 15 and between November 1 and November 30</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Recreation				
<p>Impact 3.2.12 a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated</p>	<p>MM REC-1. Implement Construction and Hunting Closures during Waterfowl Hunting Season. Project-related construction activities are currently planned from May 15 through November 30 over a single construction season. To provide for waterfowl hunting activities at the Refuge, and to ensure the safety of project-related construction workers, levee repairs will be restricted on Saturdays during waterfowl hunting season between the middle of October through end of November and either not allowed or repairs will need to be at the southern end of the project site to avoid potential conflicts with hunters. As determined in consultation between DWR and the Refuge, hunting during Wednesdays may be closed at the Refuge at specific units adjacent to ongoing construction activities. The exact date of the start of waterfowl hunting may vary and is determined by CDFW, but it generally begins the last weekend in October. Although it is not expected, if any project-related construction is planned to occur in close proximity to privately owned waterfowl hunting clubs such that construction worker safety would be an issue, agreements with each club will be negotiated to facilitate both construction and private hunting during the waterfowl hunting season.</p>	<p>Restrict construction on Saturdays during waterfowl hunting season; consult regarding hunting closures on Wednesdays during construction</p>	<p>DWR / Refuge staff / construction contractor</p>	<p>Prior to and during waterfowl hunting season, which generally begins the last weekend in October</p>
Transportation and Traffic				
<p>Impact 3.2.13 c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) and Impact 3.2.13 d) Result in inadequate emergency access</p>	<p>EC Traffic Control and Worksite Safety Plan. DWR or their contractor would prepare a Temporary Traffic Control and Worksite Safety Plan prior to construction and would implement the Temporary Traffic Control and Worksite Safety Plan throughout construction duration. The Temporary Traffic Control and Worksite Safety Plan would identify BMPs for maintaining traffic safety at public intersections during construction activities. The Temporary Traffic Control and Worksite Safety Plan will:</p> <ul style="list-style-type: none"> • describe the existing public and private roadways; • provide a map of the haul routes and identify public roadways; • identify transit stops, pedestrian facilities including crosswalks, and public land uses including schools, markets, or other public land uses, along the haul routes, for construction drivers to be aware of; and, • identify potential traffic hazards at public intersections. <p>The Temporary Traffic Control and Worksite Safety Plan will include measures to maintain safety at the intersection of West El Nido Road and State Route (SR) 59 including but not limited to providing signage at the intersection of West El Nido Road and SR 59 identifying where haul trucks will turn and alerting pedestrians and other traffic of haul truck usage.</p>	<p>Prepare and implement Temporary Traffic Control and Worksite Safety Plan</p>	<p>Construction contractor / DWR</p>	<p>Prior to and during construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Tribal Cultural Resources				
<p>Impact 3.2.14 a) Cause a substantial adverse change in the significance of a tribal cultural resource (TCR), defined in Public Resources Code (PRC) Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <ul style="list-style-type: none"> i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. 	<p>MM TCR-1. Implement Procedures for Inadvertent Discovery of Cultural Material and Implement an Inadvertent Discovery Plan. Survey work and literature review have not identified any known TCRs within the project area, and tribal consultation is ongoing until the project is complete. Project-related activities associated with the proposed project will require ground-disturbance, including excavation, trenching, grading, and use of staging and borrow areas. These ground disturbing activities could result in damage to or destruction of previously unidentified TCRs, which could be present within the project site. In the event that archaeological resources that are considered TCRs are discovered during construction, Mitigation Measure TCR-2, described below, will be implemented.</p> <ul style="list-style-type: none"> • If an inadvertent discovery of archaeological cultural materials (e.g., unusual amounts of shell, animal bone, any human remains, bottle glass, ceramics, building remains) is made at any other time during project-related construction activities or project planning, DWR, in consultation with the appropriate tribe(s), USACE, and other interested parties, will develop and implement appropriate protection and avoidance measures where feasible. • These procedures will be developed in accordance with 36 Code of Federal Regulations (CFR) 800.13 which specifies procedures for post-review discoveries. Additional measures, such as development of a Memorandum of Agreement and a Historic Property Treatment Plan, may be necessary if avoidance or protection is not possible. All the steps identified above will be detailed in an accidental-discovery plan developed before construction so that all parties are aware of the process that must be implemented should buried archaeological resources be uncovered during construction. 	<p>Develop and implement protection and avoidance measures</p>	<p>DWR / construction contractor</p>	<p>Prior to and during construction</p>

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Tribal Cultural Resources				
Impact 3.2.14 a)	<p>MM TCR-2. In the Event that Tribal Cultural Resources or Traditional Cultural Properties are Discovered during Construction, Implement Procedures to Evaluate Tribal Cultural Resources/Traditional Cultural Properties and Implement Avoidance and Minimization Measures to Avoid Significant Adverse Effects.</p> <p>California Native American Tribes traditionally and culturally affiliated with the geographic area of the APE for Site 23-81 may have expertise on the identification and management of TCRs (California PRC Section 21080.3.1). DWR considers Tribal coordination and consultation ongoing to support identification and protection of TCRs. If potential TCRs or traditional cultural properties (TCPs) are identified during construction further consultation with culturally affiliated Tribes will be conducted and focus on measures to avoid or minimize effects. The following performance standards will be met prior to continuance of construction and associated activities that may result in damage to or destruction of TCRs or TCPs:</p> <ul style="list-style-type: none"> • DWR will evaluate each identified TCR/TCP, prior to construction, for <i>California Register of Historical Resources</i> (CRHR) and National Register of Historic Places (NRHP) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636 and CFR Part 63 respectively), in consultation with interested Native American Tribes. • If a TCR is determined to be eligible for listing on the NRHP, DWR will avoid damaging effects to the TCR/TCP in accordance with California PRC Section 21084.3, if feasible. • If DWR determines that the proposed project may cause a substantial adverse change to a TCR/TCP, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a TCR/TCP or alternatives that would avoid significant impacts to a TCR/TCP. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached: <ul style="list-style-type: none"> ○ Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria. ○ Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following: <ul style="list-style-type: none"> – Protect the cultural character and integrity of the resource. – Protect the traditional use of the resource. – Protect the confidentiality of the resource. – Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places. – Protect the resource. ○ If a TCP is determined to be eligible for listing in the NRHP, then the procedures for determination of effect and, if adverse, treatment of the resource to resolve adverse effect will be conducted in accordance with the procedures required for compliance with Section 106 of the NHPA (36 CFR Parts 800.5–800.6). 	Develop and implement avoidance measures	DWR / construction contractor	Prior to and during construction

Impact	Environmental Commitment (EC)/Mitigation Measure (MM)	Monitoring / Reporting Action	Implementing Party / Monitoring Party	Timing
Mandatory Findings of Significance				
Impact 3.2.15 a) 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory	See MM CUL-1 See MM CUL-2 See MM CUL-3 See MM CUL-4 See MM GEO-1 See MM REC-1 See MM TCR-1 See MM TCR-2	See MM CUL-1 See MM CUL-2 See MM CUL-3 See MM CUL-4 See MM GEO-1 See MM REC-1 See MM TCR-1 See MM TCR-2	See MM CUL-1 See MM CUL-2 See MM CUL-3 See MM CUL-4 See MM GEO-1 See MM REC-1 See MM TCR-1 See MM TCR-2	See MM CUL-1 See MM CUL-2 See MM CUL-3 See MM CUL-4 See MM GEO-1 See MM REC-1 See MM TCR-1 See MM TCR-2
Impact 3.2.15 b) Have impacts that are individually limited but cumulatively considerable ("cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	See MM GHG-1	See MM GHG-1	See MM GHG-1	See MM GHG-1
Impact 3.2.15 c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly	See MM GHG-1 See MM REC-1	See MM GHG-1 See MM REC-1	See MM GHG-1 See MM REC-1	See MM GHG-1 See MM REC-1