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Drought Protection Program Agreement Between the Sacramento River Settlement  
Contractors Nonprofit Mutual Benefit Corporation, Individual Sacramento River  
Settlement Contractors, and the U.S. Bureau of Reclamation Project

## Mitigation Monitoring and Reporting Program

Prepared for the Glenn-Colusa Irrigation District

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Drought Protection Program Agreement Between the Sacramento River Settlement Contractors Nonprofit Mutual Benefit Corporation, Individual Sacramento River Settlement Contractors, and the U.S. Bureau of Reclamation Project

## Mitigation Monitoring and Reporting Program

**Prepared for**

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## ABBREVIATIONS

BMP	best management practice
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHRIS	California Historical Resources Information System
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEIR	Final Environmental Impact Report
GCID	Glenn-Colusa Irrigation District
GGS	giant garter snake
GSP	Groundwater Sustainability Plan
HCP	Habitat Conservation Plan
IDP	Inadvertent Discovery Plan
MMRP	Mitigation and Monitoring Reporting Program
mph	mile per hour
MRZ	mineral resource zone
NPDES	National Pollutant Discharge Elimination System
OHP	Office of Historic Preservation
Reclamation	U.S. Bureau of Reclamation
RWQCB	Regional Water Quality Control Board
SGMA	Sustainable Groundwater Management Act
SRSC	Sacramento River Settlement Contractors
SRSCNC	Sacramento River Settlement Contractors Nonprofit Mutual Benefit Corporation
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

# 1 Introduction

On December 30, 2024, the Glenn-Colusa Irrigation District (GCID), in compliance with the California Environmental Quality Act (CEQA; California Public Resources Code, Division 13, Section 21000 et seq.) and CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.) certified a Final Environmental Impact Report (FEIR) to support the approval of the Drought Protection Program Agreement<sup>1</sup> (project or Agreement) between the Sacramento River Settlement Contractors Nonprofit Mutual Benefit Corporation (SRSCNC), individual Sacramento River Settlement Contractors (SRSC), and the U.S. Bureau of Reclamation (Reclamation). Under the project, the SRSCNC and individual members of the SRSC will enter into an Agreement with Reclamation to forego a larger percentage of their contract supply in specified drought years under two phases. In addition, the SRSC will engage in drought-resiliency projects to address potential water loss and strengthen the resilience of the SRSC's water system and long-term water delivery capabilities. The project would occur within the SRSC service areas in eight counties: Shasta, Tehama, Glenn, Butte, Sutter, Colusa, Yolo, and Sacramento.

CEQA (PRC Section 21081.6) requires a Lead or Responsible Agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) when approving or carrying out a project. The purpose of this program is to ensure that when an environmental document, either an Environmental Impact Report (EIR) or a negative declaration, identifies measures to reduce potential adverse environmental impacts to less-than-significant levels, that those measures are implemented as detailed in the environmental document. As lead agency for the EIR, GCID is responsible for implementation of this MMRP.

The EIR prepared for the project addresses the potential environmental impacts and, where appropriate, recommends measures to mitigate these impacts. As such, this MMRP is required to ensure that adopted mitigation measures are successfully implemented and a monitoring strategy was prepared for each mitigation measure. Once GCID adopts the MMRP, the individual SRSC members signing the Agreement would be required to comply with these mitigation measures as enforceable conditions of the Agreement. Individual SRSC members must document their compliance with all applicable mitigation measures and provide proof of compliance to the SRSCNC, which shall maintain a record of compliance that is available for inspection and verification by GCID.

Therefore, in accordance with the aforementioned requirements, this document lists each mitigation measure, describes the methods for implementation, and identifies the responsible party or parties.

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<sup>1</sup> Prior to its approval, the Drought Protection Program Agreement was previously known as the Water Reduction Program Agreement.

## 2 Monitoring Program

This MMRP was prepared and is accompanied by the associated reporting forms used to verify compliance with individual mitigation measures. This MMRP identifies each mitigation measure by discipline, the entity or organization responsible for implementation, and the monitoring phase required for each measure. Certain inspections and reports may require preparation by qualified individuals; these are specified as needed.

**Table 1**  
**Mitigation and Monitoring Program**

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-AGR-1: Site Drought-Resiliency Projects Outside of Forest Lands.</b> Drought-resiliency projects will not be sited in forest lands.</p>	<p>The SRSC member implementing the drought-resiliency project shall review all proposed drought-resiliency project locations to ensure that none are sited in forest lands.</p>	<p>During planning for drought-resiliency projects.</p>
<p><b>MM-AIR-1: Construction Truck Idling Requirements.</b> During construction of drought resiliency projects, SRSC contractors will require construction contractors to minimize heavy-duty construction equipment idling time to 2 minutes where feasible. Currently, the In-Use Off-Road Diesel Vehicle Rule restricts construction equipment idling to 5 minutes. This measure would further reduce the time allowance for idling to 2 minutes to reduce emissions. Exceptions include equipment that needs to idle to perform work, vehicles being serviced, or vehicles in a queue waiting for work consistent with the In-Use Off-Road Diesel Vehicle Rule.</p>	<p>This measure shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	<p>Prior to commencement of and during all drought-resiliency project construction events.</p>
<p><b>MM-AIR-2: Dust Reduction Measures.</b></p> <ul style="list-style-type: none"> <li>• During drought-resiliency project construction in non-Agreement Years, the following dust control measures will be implemented as applicable to the drought-resiliency project: <ul style="list-style-type: none"> <li>– Active construction areas will be watered at least twice daily.</li> <li>– Haul trucks will maintain at least two feet of freeboard.</li> <li>– Trucks hauling soil, sand, and other loose materials will be covered.</li> <li>– Non-toxic binders (e.g., latex acrylic copolymer) will be applied to exposed areas after cut-and-fill operations and hydroseed area.</li> <li>– Inactive storage piles will be covered.</li> </ul> </li> <li>• During Agreement Years, a 20-mph speed limit for vehicles driving on unpaved roads or farmland devoid of crops will be established and enforced. Speed limits will be posted and workers will be notified in writing of restrictions. In addition, the</li> </ul>	<p>This measure shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	<p>Prior to commencement of drought-resiliency project construction in non-Agreement Years and during all Agreement Years, as specified in the measure.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p>following measures will be implemented as applicable to the drought-resiliency project:</p> <ul style="list-style-type: none"> <li>– Haul trucks will maintain at least 2 feet of freeboard.</li> <li>– Trucks hauling soil, sand, and other loose materials will be covered.</li> <li>– Non-toxic binders (e.g., latex acrylic copolymer) will be applied to exposed areas after cut-and-fill operations and hydroseed area.</li> <li>– Inactive storage piles will be covered.</li> </ul>		
<p><b>MM-BIO-1: Conduct Desktop Special Status Wildlife Species, Plant Species, and Aquatic Resources Evaluation for Drought-Resiliency Projects.</b> Prior to implementing a drought-resiliency project that involves grading, vegetation removal, or other form of construction in irrigation and drainage canals or upland areas outside of established agricultural croplands with a history of discing, planting, and maintenance, a qualified biologist will conduct a desktop evaluation of the site using digital web-based aerial photography. The purpose of the desktop evaluation will be to determine the potential for special status wildlife and plant species habitat or aquatic resources subject to regulation by the USACE, RWQCB, or CDFW to occur on site. A qualified biologist will also perform a review of the USFWS Information for Planning and Consultation, CNDDDB, CNPS, and Calflora databases to identify known records or potential for special status plant or wildlife species to occur in the project vicinity. If through this assessment, the biologist determines that potential habitat for special status wildlife or plants or jurisdictional aquatic resources exist, then site-specific survey(s) will be conducted per MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6, as applicable.</p>	<p>If a drought-resiliency project involves grading, vegetation removal, or other form of construction in irrigation and drainage canals or upland areas outside of established agricultural croplands with a history of discing, planting, and maintenance, the SRSC implementing the project shall complete a desktop special status wildlife species, plant species, and aquatic resources evaluation.</p>	<p>During planning for and prior to construction of drought-resiliency projects.</p>
<p><b>MM-BIO-2: Conduct Special Status Plant Species Surveys and Avoidance for Drought-Resiliency Projects.</b> If the drought-resiliency project site survey indicates that the project site contains suitable habitat for special-status plant species, surveys using USFWS, CDFW, and California Native Plant Society protocols will be</p>	<p>If a drought-resiliency project site contains suitable habitat for special-status plant species, the SRSC implementing the project shall ensure that surveys by a qualified biologist are conducted</p>	<p>During planning for, prior to construction of, and after completing construction for drought-resiliency projects.</p>



Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p>conducted by a qualified biologist. If present, special-status plant species will be flagged for avoidance. If avoidance is not possible, USFWS and/or CDFW will be consulted to determine the appropriate approach for minimizing impacts to special-status plant species and compensating for unavoidable impacts, and the project proponents will implement all necessary minimization and compensation measures.</p>	<p>and that if present, special-status plant species are flagged for avoidance by the qualified biologist.</p> <p>If avoidance is not possible, the SRSC implementing the project shall consult with USFWS and/or CDFW regarding the appropriate approach for minimizing impacts to special status plant species and compensating for unavoidable impacts.</p> <p>The SRSC implementing the project shall implement all necessary minimization and compensation measures as applicable or required for drought-resiliency projects undertaken as part of the Agreement.</p>	
<p><b>MM-BIO-3: Conduct Special Status Wildlife Species Surveys and Avoidance for Drought-Resiliency Projects.</b> If the drought-resiliency project site survey indicates that the project site provides habitat for special-status wildlife, site-specific pre-construction surveys using USFWS and/or CDFW protocols will be conducted by a qualified biologist. If special-status wildlife species are actively using an area within the site, work shall not be permitted to occur within 100 feet until the animals have left on their own or, if necessary, are relocated in accordance with MM-BIO-5. Setback areas will be flagged. A qualified biologist shall be present during construction to monitor construction activities.</p>	<p>If a drought-resiliency project site contains suitable habitat for special status wildlife species, the SRSC implementing the project shall ensure that surveys by a qualified biologist are conducted. If wildlife is actively using the area, the SRSC shall verify the work area is flagged with setbacks until the animals have left on their own or are relocated in accordance with mitigation measure MM-BIO-5.</p> <p>Avoidance requirements in accordance with measure shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	<p>During planning for, prior to construction of, and during construction of drought-resiliency projects.</p>
<p><b>MM-BIO-4: Conduct Nesting Bird Species Surveys and Avoidance for Drought-Resiliency Projects.</b> If the drought-resiliency project site survey indicates that the project site provides habitat for nesting birds that may be affected by construction and construction would occur between March 1 and September 15, pre-construction nesting bird surveys (two site visits at least one week apart) will be conducted by a qualified biologist within 14 days prior</p>	<p>If the drought-resiliency project site contains suitable habitat for nesting birds that may be affected by construction, the SRSC implementing the project shall ensure pre-construction nesting bird surveys are completed by a qualified biologist. If an active nest is found, the SRSC shall ensure an appropriate buffer zone is established</p>	<p>During planning for, within 14 days prior to commencement of construction activities for, and during construction of drought-resiliency projects.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p>to construction to detect the presence of nesting birds. If an active nest is found, then the qualified biologist will establish an appropriate buffer (minimum 100 feet for non-raptors and 250 feet for raptors) based on site-specific factors such as the topography, the type of work to be performed, natural visual and/or auditory barriers between the nest and proposed work area, and the species. If work must be performed within the established buffer zone, a qualified biologist should monitor the nest prior to work activities to determine baseline nesting behaviors. Work shall be permitted to occur within the buffer zone with a qualified biologist present to monitor the work for signs of disturbance, to adjust (increase) the buffer size as needed, and to exercise stop work authority if nest disturbance is observed. No further work may occur within the buffer zone until nesting birds have fledged from nests on their own. Setback areas will be flagged.</p>	<p>by a qualified biologist. If work must occur within the buffer zone, the SRSC shall ensure that a qualified biologist monitors the nest prior to construction, is present during all construction activities within the buffer zone, and flags all setback areas.</p> <p>Avoidance requirements in accordance with measure shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	
<p><b>MM-BIO-5: Implement General Biological Resources Protection Measures during Drought-Resiliency Project Construction.</b> The construction contractor and operations personnel shall implement the following general biological resources protection measures during drought-resiliency project construction:</p> <ul style="list-style-type: none"> <li>• Limit construction and operations activities to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. Light glare shields shall be used to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water.</li> <li>• Vegetation clearing will be limited to only those areas necessary for construction.</li> <li>• Any excavated and stockpiled soils will be placed outside of designated special status species habitat.</li> <li>• Dispose of cleared vegetation and soils at a location that will not create habitat for special status wildlife species.</li> </ul>	<p>The SRSC implementing a drought-resiliency project shall ensure that the general biological resources protection measures are implemented in constructing drought-resiliency projects.</p> <p>The general biological resources protection measures shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	<p>During planning for and prior to construction of drought-resiliency projects.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<ul style="list-style-type: none"> <li>• Dispose of food-related and other garbage in wildlife-proof containers and remove the garbage from the project area daily during construction. Vehicles carrying trash will be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties.</li> <li>• Store all construction-related vehicles and equipment in the designated staging areas. These areas shall not contain native or sensitive vegetation communities and shall not support sensitive plant or wildlife species.</li> <li>• Construction-related vehicles and equipment will not exceed a 20 mile-per-hour speed limit at the construction site, staging areas, or on unpaved roads.</li> <li>• The qualified biologist will provide the contractor with worker environmental awareness training.</li> <li>• Prior to the initiation of work each day, the contractor will inspect construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special-status species that could occupy such structures prior to being used for construction.</li> <li>• Avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractors.</li> </ul> <p>Capture and relocation of trapped or injured wildlife listed under ESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any sightings and any incidental take (mortality) shall be reported to CDFW via email within one working day of the discovery. Notification shall include the date, time, and location (U.S. Geological Survey (USGS) 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field) of the incident or of the discovery of an individual special-status species that is dead or injured (type of</p>		

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
injury shall be included). For each special-status species encountered, the biologist shall submit a completed CNDDDB field survey form (or equivalent) to CDFW no more than 90 days after completing the last field visit to the project site.		
<p><b>MM-BIO-6: Implement GGS Avoidance Measures for Drought-Resiliency Projects.</b> If the need for a drought-resiliency project site survey is identified as part of MM-BIO-1, and the initial assessment indicates that the project site provides habitat for GGS, avoidance measures must be implemented to avoid GGS during construction. Construction activities within GGS habitat will be restricted to between May 1 and October 1, to the extent feasible. If work must be conducted within GGS habitat between October 2 and April 30, two GGS pre-construction surveys will be conducted in any area within 200 feet of GGS aquatic habitat by a qualified biologist. The first survey will occur within 15 days prior to onset of construction and the second will occur within 24 hours prior to the onset of construction. The information collected from the first pre-construction survey will serve primarily to alert the biologist and construction crews of the general level of GGS activity at the site and borrow area, and the second survey will serve to minimize potential for take of GGS. If GGS is found in the project area, then to avoid direct impacts on GGS, the following measures will be implemented during construction of the drought-resiliency project:</p> <ul style="list-style-type: none"> <li>• Temporary fencing will be installed to exclude GGS from the work area. The design of the fence will be approved by the CDFW prior to installation.</li> <li>• Fence installation will be supervised by a qualified biologist.</li> <li>• The qualified biologist will provide the contractor with worker environmental awareness training, including instructing the contractor on how to inspect the exclusion fence.</li> <li>• Prior to the initiation of work each day, the contractor will inspect the exclusion fence to ensure it is functional for the intended purpose.</li> </ul>	<p>The SRSC implementing the project shall ensure that the GGS avoidance measures are implemented in constructing drought-resiliency projects.</p> <p>Avoidance requirements in accordance with this measure shall be incorporated into any applicable construction contracts initiated by an individual SRSC for a drought-resiliency project.</p>	<p>During planning for and prior to construction of drought-resiliency projects.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p>If GGS is observed within the temporary fencing around the construction site, the contractor will stop work and allow the species to leave the site of its own volition or the snake will be captured by a qualified biologist with appropriate collecting/handling permits and relocated to the nearest suitable habitat beyond the influence of the project work area. "Take" of a state or federal special status species is prohibited without appropriate permits from the USFWS and CDFW.</p>		
<p><b>MM-BIO-7: Obtain Incidental Take Authorization for Take of Listed Species from Drought-Resiliency Project Impacts.</b> If species avoidance is not expected to be possible through implementation of MM-BIO-1, MM-BIO-3, MM-BIO-4, MM-BIO-5, or MM-BIO-6, USFWS and/or CDFW will be consulted to determine the appropriate approach for minimizing impacts to special-status wildlife species and compensating for potential incidental take. Impacts will be compensated for through purchase of mitigation credits at an approved conservation bank and/or on or offsite restoration and enhancement. Incidental take authorization will be obtained for take of listed species resulting from construction of a drought-resiliency project.</p>	<p>The SRSC implementing the project shall ensure that incidental take authorization is obtained if special status species avoidance is not possible for constructing drought-resiliency projects.</p>	<p>Prior to the commencement of construction activities for drought-resiliency projects.</p>
<p><b>MM-BIO-8: Compensate for Permanent Loss of Special Status Wildlife Species Habitat from Drought-Resiliency Projects.</b> If it is determined through implementation of MM-BIO-1 and MM-BIO-3 that a drought-resiliency project site includes high-quality foraging or breeding habitat for special status wildlife species and there will be a permanent loss of such habitat resulting from construction, impacts will be compensated for through onsite and/or offsite restoration, enhancement, and/or purchase of mitigation credits at an approved conservation bank. Based on the findings of MM-BIO-3, the qualified biologist will prepare a plan that outlines proposed compensatory mitigation and coordinate with USFWS and CDFW. Compensatory lands will be of similar or better quality than habitat lost, preferably located in the vicinity of the drought-resiliency project site, and be permanently preserved through a conservation</p>	<p>The SRSC implementing the project shall ensure that compensatory mitigation is provided for permanent loss of special status species habitat from construction of drought-resiliency projects.</p>	<p>After implementation of mitigation measures MM-BIO-1 and MM-BIO-3 for drought-resiliency project sites that include high-quality foraging or breeding habitat for special status wildlife species and where there will be a permanent loss of such habitat resulting from construction.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
easement. The plan will identify conservation actions to ensure that the compensatory lands are managed to provide for the continued existence of the species. The plan will also identify an approach for funding assurance for the long-term management of the conserved land, as relevant.		
<b>MM-BIO-9: Tree Replanting Requirements for Drought-Resiliency Projects.</b> Avoid native tree removal where practicable through adjustments to the alignment of ditches, pipelines, or other construction features. If protected or heritage native tree removal is not avoidable, local county requirements for replacement would be prescribed at the ratio specified in their general plan. Replanting ratios vary between counties. For trees known to be used by nesting raptors, preservation efforts shall be pursued to the maximum extent possible. Nest tree losses in HCP covered areas could be subject to replacement at 15:1 such as in the Natomas Basin HCP.	The SRSC implementing the project shall ensure that trees are replanted in accordance with this measure to compensate for any tree removal required for construction or operation of drought-resiliency projects.	During drought-resiliency project planning and prior to any tree removal associated with a drought-resiliency project.
<b>MM-BIO-10: Timing Requirements for Discing in Fallow Fields During Agreement Years.</b> If discing occurs in idled croplands during an Agreement Year, the following will be adhered to: <ul style="list-style-type: none"> <li>• Between February 15 and September 15, discing will occur when vegetation is on average 12 inches or less in height.</li> <li>• Between September 15 and February 15, discing may occur without vegetation height restriction.</li> </ul>	During Agreement Years, all SRSC members idling croplands shall ensure that the timing requirements stated in this measure are complied with when discing croplands fallowed under the Agreement.	Prior to discing croplands idled as a result of the Agreement.

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-BIO-11: Maintain Minimum Water Depth in Irrigation and Drainage Canals in Key Areas During Agreement Years.</b> Certain croplands abut or are immediately adjacent to areas with known important GGS populations that may be in or connected to areas with specific management plans for GGS either for mitigation or as wildlife refuges. Croplands abutting or immediately adjacent to the following areas are considered important GGS populations:</p> <ul style="list-style-type: none"> <li>• Butte Creek between Upper Butte Basin and Gray Lodge Wildlife areas</li> <li>• Colusa Basin drainage canal between Delevan and Colusa National Wildlife Refuges</li> <li>• Gilsizer Slough</li> <li>• Colusa Drainage Canal</li> <li>• Land side of the Toe Drain along the Sutter Bypass</li> <li>• Willow Slough and Willow Slough Bypass in Yolo County</li> <li>• Hunters and Logan Creeks between Sacramento and Delevan National Wildlife Refuges</li> <li>• Lands in the Natomas Basin</li> </ul> <p>To the extent practicable, irrigation and drainage canal water depths in areas that are considered important GGS populations will be similar to years when the Agreement is not in effect or, where information on baseline water depths is limited, at least 2 feet deep.</p>	<p>During Agreement Years and to the extent practicable, all SRSC members idling croplands shall ensure that any croplands abutting or immediately adjacent to the areas specified in this measure maintain irrigation and drainage canal water depths of at least 2 feet deep.</p>	<p>Prior to cropland idling during Agreement Years.</p>
<p><b>MM-BIO-12: Conduct Aquatic Resources Surveys and Avoidance for Drought-Resiliency Projects</b></p> <p>If the drought-resiliency project site survey identified in MM-BIO-1 indicates that the project site contains potentially jurisdictional aquatic resources, including wetlands, other waters, and riparian habitat, that may be affected by construction, an aquatic resources delineation to identify and delineate wetlands and other waters shall be conducted. Wetlands and waters identified on site will be flagged as environmentally sensitive areas and avoided to the extent practicable. Permanent impacts to jurisdictional aquatic resources will be mitigated per MM-BIO-13.</p>	<p>The SRSC implementing the project shall ensure that aquatic resources surveys and avoidance measures are implemented for drought-resiliency projects.</p>	<p>During planning for and prior to construction of drought-resiliency projects.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-BIO-13: Obtain Required Permits and Implement Wetland Mitigation for Drought-Resiliency Projects.</b> If impacts to wetlands and waters cannot be avoided, then required permits, potentially including permits from the USACE, RWQCB, and CDFW would be obtained and complied with per MM-BIO-13. Mitigation for project-related permanent impacts to jurisdictional wetlands or other waters will be provided at a minimum 1:1 ratio through onsite and/or offsite restoration, enhancement, and/or purchase of mitigation credits at an approved bank.</p>	<p>The SRSC implementing the project shall ensure that required USACE, RWQCB, and CDFW permits are obtained and that mitigation for permanent impacts to waters and wetlands is provided at a minimum 1:1 ratio for drought-resiliency projects.</p> <p>This measure shall be incorporated into any applicable construction contracts initiated by any SRSC for a proposed drought-resiliency project.</p>	<p>Prior to construction of, during construction of, and after construction of drought-resiliency projects.</p>
<p><b>MM-HYD-1: Implement Erosion and Spill Control Measures for Drought-Resiliency Projects.</b> To ensure that contaminants are not accidentally introduced into irrigation ditches and canals, the following measures will be implemented during construction of drought-resiliency projects:</p> <ul style="list-style-type: none"> <li>• Use of BMPs (e.g., filter fabric or sandbags) to prevent pollutants from entering drainage channels</li> <li>• Equipment be inspected daily for leaks or spills</li> <li>• Materials for cleanup of spills be available on site</li> <li>• Flammable materials be stored in appropriate containers</li> <li>• Spill prevention kits be in close proximity when using hazardous materials</li> <li>• Spills and leaks be cleaned up immediately and disposed of in accordance with local, state, and federal regulations</li> <li>• Vehicles and equipment be kept clean</li> <li>• Construction personnel to be appropriately trained in spill prevention, hazardous material control, and cleanup of accidental spills</li> </ul> <p>For drought-resiliency projects involving over an acre of land disturbance, a NPDES Construction Stormwater General Permit will be obtained and a construction Stormwater Pollution Prevention Plan (SWPPP) will be prepared.</p>	<p>This measure and all listed BMPs shall be incorporated into any applicable construction contracts initiated by a SRSC member for any drought-resiliency project and enforced by the SRSC. Implementation of the measures and listed BMPs shall be documented by the SRSC implementing the project.</p>	<p>Prior to commencement of and during construction of drought-resiliency projects.</p>



Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-HYD-2: Install and Operate Groundwater Wells in Accordance with Groundwater Sustainability Plans (GSPs) and the SGMA for all Groundwater Pumping Activities undertaken under the Agreement.</b> The installation of any new groundwater wells and the operation of existing and new groundwater wells will be in accordance with targets and requirements set by applicable GSPs managed by Groundwater Sustainability Agencies in the project area, as well as the requirements set forth by SGMA, including the submittal of annual reports regardless of determination status following adoption of a GSP or alternative.</p>	<p>The implementing SRSC shall ensure that any installation and operation of new wells, and operation of existing wells, is in accordance with GSPs and SGMA.</p>	<p>During planning for any new groundwater wells; ongoing for continued compliance for existing groundwater wells.</p>
<p><b>MM-CUL-1: Conduct CHRIS Review and Desktop Evaluation for Drought-Resiliency Projects.</b> Prior to the start of any drought-resiliency project, a qualified historian/archaeologist will request information regarding cultural resources already recorded in CHRIS to determine whether a drought-resiliency project may be located in an area where cultural resources are recorded. If through this review, a cultural resource is identified within resiliency project area or the historian/archaeologist determines through desktop review that the specific project area has potential to contain cultural resources, then implementation of MM-CUL-2 will be required.</p>	<p>The SRSC implementing the project shall verify that a CHRIS review and desktop evaluation has been completed for the drought-resiliency projects by a qualified historian/archaeologist. If a cultural resource is identified or it is determined that the project area has the potential to contain cultural resources, the SRSC shall ensure implementation of mitigation measure MM-CUL-2.</p>	<p>During planning for and prior to the construction of any drought-resiliency project.</p>
<p><b>MM-CUL-2: Conduct Pre-Construction Surveys and Establish Buffers for Drought-Resiliency Projects.</b> If determined required by the qualified historian/archaeologist in MM-CUL-1, a site-specific pre-construction field survey will be conducted by a qualified historian/archeologist prior to the start of construction activities. The pre-construction survey will be designed to identify historic structures, archaeological sites, and potential Tribal cultural resources that may be present at the specific location of the drought-resiliency project that is to be implemented. Reports would be made available to the Office of Historic Preservation (OHP) and Native American Tribes that have requested consultation (if any), and these entities would be afforded an opportunity to comment prior to the start of construction. Any historical or archaeological</p>	<p>If a qualified historian/archeologist determines that a site-specific pre-construction survey is required prior to the start of construction of a drought-resiliency project, the implementing SRSC shall ensure that a site-specific pre-construction survey is conducted. Reports on historic structures, archeological sites, and potential Tribal cultural resources that may be present a specific drought-resiliency project site shall be made available to OHP and Native American Tribes that have requested consultation and any resource shall be recorded and flagged with a 30-foot buffer (or appropriate).</p>	<p>Prior to the start of construction for drought-resiliency projects.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
resources identified during the survey would be recorded and flagged with a 30-foot buffer (or based on topography and access points to protect the find, as determined appropriate by the qualified historian/archeologist).	This measure shall be written in applicable contracts for drought-resiliency projects.	
<b>MM-CUL-3: Develop and Implement Applicable Monitoring and Mitigation for Drought-Resiliency Project Impacts.</b> If the pre-construction survey conducted in MM-CUL-2 identifies any historic or archaeological resources and a Tribe(s) has requested consultation, then that Tribe(s) will be notified. If historic structures, archaeological sites, and potential Tribal cultural resources are identified and flagged, but impacts cannot be avoided or adequately minimized, then OHP and Tribes that have requested consultation (if any) will be provided a project-specific monitoring and mitigation plan. Impacts will be mitigated through implementation of this plan, with mitigation expected to include but not be limited to monitoring, resource investigation, documentation, recovery, or preservation as well as interpretive measures.	If historic or archaeological resources are identified in a project area and a Tribe(s) has requested consultation, the SRSC implementing the project shall confirm that requesting Tribe(s) are properly notified; that resources are identified and flagged and impacts are minimized and avoided; or, if needed, a project-specific monitoring and mitigation plan is developed and shared with requesting Tribe(s). This measure shall be written in applicable contracts for drought-resiliency projects.	Prior to the start of construction for drought-resiliency projects.
<b>MM-CUL-4: Develop Inadvertent Discovery Plan (IDP) to be Implemented if Prehistoric or Historical Archaeological Resources Are Encountered during Drought-Resiliency Project Construction.</b> A qualified archaeologist will develop an IDP for the proposed project to be provided to onsite personnel involved in drought-resiliency projects that involve excavation below depths routinely disced or disturbed through routine agricultural operations. The IDP will include steps to be taken in the event that cultural resources, any artifact, or an unusual amount of bone, shell, or non-native stone are identified during construction. Work will immediately stop and activities will be relocated to another area beyond 10 meters (30 feet) of the discovery. In the case of potential human remains, the find must be reported to local law enforcement. The IDP will specify steps to notify and consult with the OHP and Tribes. If the resources are found to be significant, they would be avoided or if avoidance is not possible, mitigated in accordance with MM-CUL-3.	For drought-resiliency projects that involve excavation below depths routinely disced or disturbed, the SRSC implementing the project shall ensure an IDP is prepared by a qualified archaeologist and that it is implemented if prehistoric or historical archaeological resources are encountered during construction.  Plans for all drought-resiliency projects that involve excavation shall include the IDP to be provided to onsite personnel, this measure shall be written in applicable contracts.	Prior to the start of construction for drought-resiliency projects.

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-GEO-1: Needed Implementation of Geotechnical Recommendations for Drought-Resiliency Projects.</b> Recommendations from geotechnical assessments or reports for specific project elements would be implemented as needed, including use of materials and construction techniques specifically addressing potential seismic and geologic hazards.</p>	<p>The SRSC implementing the project shall ensure that geotechnical assessments or reports are consulted or prepared to verify the need for specific project elements, if any, to ensure seismic and geological hazards requirements are included in the final drought-resiliency project design.</p>	<p>During planning for drought-resiliency projects.</p>
<p><b>MM-GEO-2: Unstable Area Buffer for Drought-Resiliency Projects.</b> Within a 50-foot-wide buffer around unstable areas regardless of percent slope, no drought-resiliency project construction would occur without approval from an earth sciences/physical sciences professional.</p>	<p>The SRSC implementing the project shall engage an earth sciences/physical sciences professional to determine the need for and, if needed, establish a 50-foot buffer around any unstable areas regardless of percent slope. If needed, the implementing SRSC shall ensure this requirement is included in final drought-resiliency project plans.</p>	<p>Prior to construction of any drought-resiliency project that includes unstable areas as determined by an earth sciences/physical sciences professional.</p>
<p><b>MM-GEO-3: Adhere to Applicable Seismic Design Parameters for Drought-Resiliency Projects.</b> Drought-resiliency projects would adhere to all applicable seismic design parameters.</p>	<p>The SRSC implementing the project shall ensure that a drought-resiliency project is compliant with all applicable seismic design parameters and that these parameters are included in final drought-resiliency project plans.</p>	<p>During planning for any drought-resiliency project.</p>
<p><b>MM-HAZ-1: Soil Testing in Accordance with Disposal Site Requirements.</b> To address potential impacts to people and the environment from management of potentially contaminated soils, any excavated soils that would not be reused on site would be tested in accordance with disposal site requirements.</p>	<p>For drought-resiliency projects that will not reuse excavated soils on site, the SRSC implementing the project shall require that applicable construction contracts and plans include a requirement to test excavated spoils in accordance with disposal site requirements.</p>	<p>During planning for any drought-resiliency project.</p>
<p><b>MM-HAZ-2: Spill Kits.</b> All heavy construction equipment vehicles would maintain spill kits with oil-absorbent material and tarps to contain minor releases.</p>	<p>For drought-resiliency projects that involve use of heavy construction equipment vehicles, the SRSC implementing the project shall require that plans and contracts include a requirement to maintain spill kits with oil-absorbent material and tarps at all times to contain minor releases.</p>	<p>During planning for any drought-resiliency project.</p>

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<b>MM-HAZ-3: Site Drought-Resiliency Projects Away from Active Cleanup Sites.</b> Drought-resiliency projects will be sited away from active cleanup sites.	The SRSC implementing the project shall ensure that a drought-resiliency project is sited away from active cleanup sites.	During planning for any drought-resiliency project.
<b>MM-MIN-1: Avoid Siting Drought-Resiliency Projects in Mineral Resource Zones.</b> Site drought-resiliency projects away from areas mapped as MRZ to the extent practicable.	The SRSC implementing the project shall ensure that a drought-resiliency project is not sited in areas mapped as MRZ to the extent practicable.	During planning for any drought-resiliency project.
<b>MM-NOI-1: Notification Requirements to Off-site Noise-sensitive Receptors for Drought-Resiliency Projects.</b> Written notification of project activities would be provided to all off-site noise-sensitive receptors (e.g., residential land uses) located within 500 feet of drought-resiliency project locations. Notification would include anticipated dates and hours during which activities are anticipated to occur and contact information of the project representative, including a daytime telephone number.	The SRSC implementing the project shall ensure written notification of drought-resiliency project activities is provided to all off-site noise-sensitive receptors located within 500 feet of a drought-resiliency project site.	Prior to commencement of drought-resiliency project construction activities.
<b>MM-NOI-2: Power Equipment Use and Maintenance Requirements for Drought-Resiliency Projects.</b> All powered heavy equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.	Plans for all drought-resiliency projects shall include this requirement in all construction contracts that include the use of power equipment and power tools.	During planning for drought-resiliency projects and during drought-resiliency project construction activities.
<b>MM-NOI-3: Heavy Equipment Must Operate at Least 25 Feet from Neighboring Structures for Drought-Resiliency Projects.</b> Drought-resiliency projects involving the use of heavy equipment (such as a large bulldozer) will be sited to occur at least 25 feet from neighboring historical buildings and structures that are extremely susceptible to vibration damage.	If a project is sited near historic buildings or structures that are extremely susceptible to vibration damage, and the drought-resiliency project would use heavy equipment, the implementing SRSC shall review final project plans to ensure that the project is not sited within 25 feet of those historic buildings or structures.	During planning for drought-resiliency projects.

Mitigation Measures		
Measure	Responsible Party and Implementation	Timing and Monitoring
<p><b>MM-UTI-1: Notify Utility Companies of Drought-Resiliency Projects.</b> Prior to construction of the drought-resiliency projects, utility companies will be contacted to determine whether the potential for utility line crossing or conflict exists. Notice of construction of the drought-resiliency projects will be provided to utility providers to request additional information on the location, if any, of private cables or utilities.</p>	<p>The SRSC implementing the project shall notify all relevant utility companies in the vicinity of project activities to determine possible construction conflicts. The implementing SRSC shall verify this measure is included in final drought-resiliency project plans.</p>	<p>Prior to construction of a drought-resiliency project.</p>
<p><b>MM-UTI-2: Conduct Utility Surveys and Coordinate with Utility Companies for Drought-Resiliency Projects if Needed.</b> During the design phase for each of the drought-resiliency projects and if coordination with utility companies reveals the potential for utility lines to be in the project area, site specific utilities surveys will be completed to locate, understand, and avoid conflicts with existing utilities. In addition, all overhead and buried utility lines will be demarcated and avoided unless modifications are required. Modifications will be coordinated with the utility company.</p>	<p>The SRSC implementing the project shall conduct utility surveys to locate, understand, and avoid conflicts with existing utilities and coordinate with utility companies for modifications, as necessary. This measure shall be incorporated into any applicable design and engineering contracts for all proposed drought-resiliency projects undertaken under the Agreement.</p>	<p>During planning for drought-resiliency projects.</p>