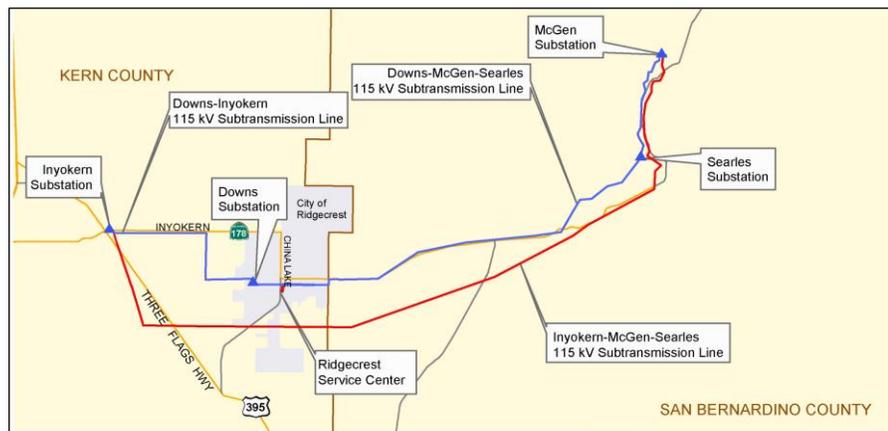


1. Introduction

1.1 Project Overview

The Downs Substation Expansion Project (Project) involves the upgrading and expansion of the existing Downs 33/12-kilovolt (kV) Substation to a 115/12-kV substation, including approximately 1,000 feet of new access road; upgrading protection relays inside the Mechanical and Electrical Equipment Room (MEER) at Inyokern, McGen and Searles Substations; routing an existing 115-kV subtransmission line into and out of the expanded Downs Substation; and installing a fiber optic telecommunication system (including 58 miles of fiber optic telecommunication cable, generally located aboveground on existing 115-kV poles with a few short segments ranging from a few hundred feet to a few thousand feet placed underground to allow interconnection to the Ridgecrest Service Center and the Inyokern, McGen, and Searles Substations) to provide communication circuits for the protection, monitoring, and control of subtransmission and substation equipment.

The existing Downs Substation encompasses approximately one acre of land within the City of Ridgecrest. The proposed expansion of Downs Substation would require an additional 2.5 acres of a 4.6-acre parcel of SCE-owned land adjacent to the existing Downs Substation.



1.2 Authority

The California Public Utilities Commission (CPUC) has broad regulatory authority under Article XII of the California Constitution, and Section 702 of the Public Utilities Code (PU Code) mandates that every public utility obey and comply with every order, decision, direction or rule made by the Commission. Public utilities are subject to enforcement action and fines pursuant to PU Code Sections 2102-1015, 2017, 2108, and 2114. In 2013, the CPUC established a CEQA Citation Program authorizing Staff to fine public utilities for non-compliance with Permits to Construct (PTCs) and Certificates of Public Convenience and Necessity (CPCNs). MMCRPs are adopted as part of PTCs and CPCNs and are enforced as such.

Monitoring of mitigation measures to be implemented by a project is required by California Environmental Quality Act (CEQA). Section 21081.6 of the California Public Resources Code (PRC) requires a public agency to adopt a mitigation monitoring and reporting program when it approves a project that is subject to preparation of an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) and where significant adverse environmental effects have been identified. CEQA Guidelines Section 15097 clarifies requirements for mitigation monitoring or reporting.

Mitigation measures to be implemented as part of the Downs Substation Expansion Project (Project) (Application No. A.10-12-016) were identified in the Final MND prepared by CPUC for the Project. The MND was approved by the California Public Utilities Commission (CPUC) on November 29, 2012 in Decision D.12-11-027 and includes procedures for preparing and implementing a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) to ensure compliance with mitigation measures approved in the MND. In addition, Applicant Proposed Measures (APMs) were adopted as part of the MND. The mitigation measures and APMs identified in the MND provide the framework for this MMCRP.

1.3 Mitigation Monitoring Compliance, and Reporting Plan

Within SCE's application, APMs were proposed to reduce potentially significant adverse impacts related to project construction and operation. These are in addition to the mitigation measures and permit requirements imposed on the Project.

The MMCRP provides guidelines and procedures for environmental compliance on the Project. The MMCRP was developed by CPUC in coordination with SCE and CPUC Environmental Monitors (CPUC EMs) and defines the reporting relationships, provides information regarding the roles and responsibilities of the Project's environmental compliance personnel, sets out compliance reporting procedures, and establishes a communication protocol. The communication information as listed in the MMCRP will be updated throughout construction.

The purpose of this MMCRP is to ensure effective implementation of the mitigation measures and APMs identified in the MND and imposed by the CPUC as part of project approval. It describes the logistics of the monitoring process and establishes protocols to be followed by CPUC's third-party Environmental Monitors and SCE project staff. This MMCRP includes:

- Procedures for approving minor project changes;
- Procedures for dispute resolution;
- APMs and mitigation measures that SCE must implement as part of the Proposed Project;
- Actions required to implement these measures;
- Monitoring requirements; and
- Timing of implementation for each measure.

Section 6 lists the mitigation measures, the timing for completion, and whether CPUC review or approval is required before construction can commence.

A draft version of the MMCRP was distributed to SCE and CPUC EMs for review and comment. Final language of the MMCRP was made in consultation with SCE.

1.4 Agencies with Jurisdiction

The CPUC is the Lead Agency for the Project. However, the project route crosses lands, affects resources, or requires activities that are under the jurisdiction of or regulated by other agencies. These agencies that may require separate permits or approvals are listed in Table 1. Contact information for individual agencies is provided in Table 2.

All required permits are to be secured and their terms and conditions implemented prior to undertaking any work that requires such permits. CPUC's EM will be provided copies of every permit secured and will include permit compliance as part of general environmental monitoring duties. If the CPUC EM observes activities or conditions believed to be in violation of a permit, the CPUC EM has the authority to communicate these observations to the appropriate agency. Under their own authority and discretion, permitting agencies may implement their own monitoring and reporting schemes and undertake whatever enforcement actions they are authorized to pursue.

Important: The status of required permits will be included in any request for a Notice to Proceed. Copies of permits, including any permit requirements and stipulations, shall be provided to CPUC.

Table 1. Permits that May Be Required for the Downs Substation Expansion Project

Agency	Jurisdiction	Requirements
Federal/State Agencies		
Bureau of Land Management	Section 106 of the National Historic Preservation Act	Cultural resources management (if appropriate)
California Department of Transportation	Highway and State-owned roadways	Transportation permit for movement of vehicles that may qualify as an oversized or excessive load (if required)
California Office of Historic Preservation	Consultation through CEQA review process	Cultural resources management (if appropriate)
Regional Water Quality Control Board (RWQCB)-Lahontan Region	National Pollutant Discharge Elimination System, Construction General Permit Storm Water Pollution Prevention Plan (SWPPP)	Submittal of Notice of Intent (NOI) to Region Board and preparation of SWPPP
RWQCB-Lahontan Region	Spill Prevention Control and Countermeasure (SPCC) for mineral oil in transformers	Calculation of containment requirements and system design
California Department of Fish and Wildlife	Endangered Species Consultation	Consultation on State-listed species; possible impacts to threatened and endangered species
Local/Regional Agencies		
City of Ridgecrest	Building and Grading Permits and Safety Requirements	Ministerial approval for construction of new facilities
City of Ridgecrest	Roadway Encroachment and/or Transportation Permit	Ministerial approval for possible closure of roads for transportation of heavy or oversized equipment and construction of facilities within public roadway right-of-way.
Kern County	Roadway Encroachment and/or Transportation Permit	Ministerial approval for possible closure of roads for transportation of heavy or oversized equipment and construction of facilities within public roadway right-of-way
San Bernardino County	Roadway Encroachment and/or Transportation Permit	Ministerial approval for possible closure of roads for transportation of heavy or oversized equipment and construction of facilities within public roadway right-of-way

Table 2. Jurisdictional Agencies Associated with the Downs Substation Expansion Project

Agency	Address	Contact Person	Phone	E-mail Address
LEAD AGENCY				
California Public Utilities Commission	505 Van Ness Ave, San Francisco, CA 94102	Eric Chiang	415-703-1956	eric.chiang@cpuc.ca.gov
FEDERAL AGENCIES				
Bureau of Land Management Ridgecrest Field Office	300 S. Richmond Rd., Ridgecrest CA 93555	Carl B. Symons Field Manager	760-384-5405	csymons@blm.gov
STATE AGENCIES				
California Department of Transportation	District 9 500 S Main St., Bishop CA 93514	Gayle J. Rosander	760-872-0785	Gayle_Rosander@dot.ca.gov
Regional Water Quality Control Board (RWQCB)-Lahontan Region	14440 Civic Dr., #200 Victorville CA 92392		760-241-6583	stormwater@waterboards.ca.gov
California Department of Fish and Wildlife	1234 E Shaw Ave., Fresno CA 93710	Reagen O'Leary	559-243-4014 extension 244	roleary@dfg.ca.gov
LOCAL AND REGIONAL				
City of Ridgecrest	Public Works 100 W California Ave Ridgecrest CA 93555	Loren E. Culp	760-499-5083	lkulp@ridgecrest-ca.gov
San Bernardino County	Planning Division 385 N Arrowhead Ave., San Bernardino CA 92415-0181	Matthew Slowik	909-387-4372	mslowik@lusc.sbcounty.gov

1.5 Schedule

SCE expects to energize the new 230 kV line by early 2016. Table 3 shows a preliminary construction schedule based on conceptual engineering and initial resource agency consultation. The actual construction schedule may vary based upon many factors, including the timeline for additional agency approvals and land acquisition, environmental conditions, and any necessary changes to the project design due to unexpected physical conditions.

Project-related construction activities (beyond such pre-construction activities as engineering, design, studies, and permitting) will not begin until the CPUC’s Project Manager has issued one or more Notices to Proceed covering the planned activities.

Table 3. Preliminary Construction Schedule																			
Construction Task	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016
Downs Substation – Construction	X	X	X	X	X	X	X	X	X										
Downs Substation – Testing/Commissioning								X	X	X	X	X	X						
Decommission 33kV Substation															X	X	X		
Downs: Landscaping												X	X	X	X	X	X		
Decommission 33kV Substation																			
Inyokern Substation Upgrades				X	X	X	X	X	X	X	X								
Inyokern Substation Upgrades				X	X	X	X	X	X	X	X								
McGen Substation Upgrades				X	X	X	X	X	X	X	X								
Searles Substation Upgrades				X	X	X	X	X	X	X	X								
Subtransmission			X	X	X	X													
Telecom/Fiber Optics					X	X	X	X	X	X	X	X							
In-Service Date																			

1.5.1 Construction Work Packages

SCE has divided the work for this Project into two Notice to Proceed Requests (NTPRs). The first NTP (issued 22 October 2014) covered all work specific to the expansion of Downs Substation. The second NTP (receipt date pending) will cover all other project activities: upgrades at Inyokern, McGen and Searles Substations, Subtransmission pole work, and telecom/fiber optic reconductoring. All substation work, the subtransmission work and the telecom/fiber optics work will have separate SCE construction managers overseeing the activities, but due to the small size of this Project, these components are not being managed at the work package level. Downs Substation began construction in November 2014, all other activities are anticipated to begin late February/early March 2015.

Important: Before work can proceed on a work package, a request for a Notice to Proceed (NTP) must be made by SCE and approved by CPUC (see Section 4.1.1). The mitigation measures and APMs listed in Section 6 include the locations where these requirements apply and which must be implemented prior to the commencement of construction. SCE will work closely with its construction contractor to ensure that site-specific mitigation measures and APMs are clearly identified and implemented. CPUC EMs will verify the implementation of mitigation measures and APMs prior to and during construction.

2. Roles and Responsibilities

2.1 Implementation

SCE is responsible for implementing and maintaining all mitigation measures and APMs, and for obtaining and complying with all required permits and their requirements. The utility is responsible for ensuring that its agents and contractors comply with the MMCRP. SCE also is responsible for satisfying requests from jurisdictional agencies and will notify and copy the CPUC on all correspondences related to final approvals and verifications for the project if not otherwise copied on the correspondence.

Standards for successful mitigation are implicit in some mitigation measures, such as obtaining non-discretionary permits or avoiding a specific impact entirely. Additional resource avoidance or impact minimization conditions may be imposed by applicable agencies with jurisdiction through their discretionary permit processes.

Important: SCE will inform the CPUC Project Manager in writing of mitigation measures that are not or cannot be successfully implemented. While the CPUC recognizes the need for flexibility post-decision in response to changed circumstances, it believes changes should be the exception to the rule, and it intends to ensure that any proposed change is subject to rigorous standards. Consequently, some requested changes may qualify for the process set forth in the MMCRP for minor project changes (see 4.3.3); others may require the submittal of a Petition for Modification (PFM) pursuant to CPUC Rules of Practice & Procedure, Rule 16.4(a).

The CPUC, as Lead Agency, is responsible for ensuring that all mitigation measures and APMs are implemented in a timely fashion as specified, and that the CPUC EM verifies SCE's compliance with mitigation measures, APMs, and conditions of permits issued by other agencies. Other jurisdictional agency representatives may visit construction areas at any reasonable and safe time, and may require information regarding the status of compliance with particular mitigation measures or permits. Additional information on communication protocols is presented in Section 3.

2.2 SCE Roles and Responsibilities

SCE project personnel and SCE's contractors are responsible for implementing all project mitigation measures, APMs, permit conditions, and the MMCRP. It is SCE's responsibility to comply with project requirements, plan construction activities in a manner that meets these requirements, document compliance activities and the results of mitigation, and implement the MMCRP. In addition to this MMCRP, SCE will implement its own Environmental Compliance and Management Program (ECMP) that will be specifically tailored to the project and designed to work concurrently with this MMCRP.

SCE Legal Counsel

SCE legal counsel may participate in the compliance effort as determined by SCE. SCE legal counsel may review project compliance documents, notifications, or participate in dispute resolution should the need arise.

SCE Construction Project Manager

The SCE Project Manager provides overall direction, management, leadership, and corporate coordination for the project. The SCE Project Manager's responsibilities include:

- Coordinating construction, engineering, and SCE environmental personnel
- Integrating environmental responsibilities into all levels of the project organization
- Ensuring compliance with project mitigation measures, APMs, permit conditions, and the MMCRP
- Communicating project activities, schedules, and public relation issues to the project team

SCE Environmental Compliance Manager

The SCE Environmental Compliance Manager shall be the lead SCE representative responsible for implementing environmental requirements and the MMCRP. The SCE Environmental Compliance Manager's responsibilities include:

- Understanding and planning for project requirements and construction needs
- Coordinating and completing preconstruction requirements included in project mitigation measures, APMs, permit conditions, and the MMCRP
- Communicating environmental requirements to the SCE Compliance Team and Construction Managers
- Communicating with the CPUC Monitoring Team regarding environmental requirements, construction needs, and construction schedule changes
- Ensuring compliance with project mitigation measures, APMs, permit conditions, and the MMCRP
- Reporting the effectiveness of mitigation and regularly submitting required documentation and notifications to CPUC
- Providing leadership to correct any issues with environmental compliance

SCE Lead Biologist/Lead Archaeologist

The SCE Leads shall coordinate the activities of the SCE Lead and Specialty Monitors, and communicate with project management and construction personnel to ensure environmental compliance.

SCE Lead Monitors (Environmental Intelligence or subcontracted)

The SCE Lead (LM) shall work closely with construction personnel in the field to implement mitigation and perform, or oversee, required monitoring tasks. The LM shall be the primary field employee responsible for verifying and communicating day-to-day environmental compliance. Multiple LMs may be used by SCE as needed to effectively monitor compliance during periods of high construction activity or high monitoring demand. The LM's responsibilities include:

- Understanding environmental project requirements and construction needs
- Taking direction from the SCE Environmental Team

- Supporting construction staff to ensure work is conducted in compliance with environmental requirements
- Conducting, or overseeing, monitoring activities specified in project mitigation measures, APMs, and permit conditions
- Implementing the MMCRP
- Determining the effectiveness of mitigation and reporting whether adjustments need to be made to the SCE Compliance Team
- The LM has the authority to redirect any construction activities associated with the project, when it is safe to do so, if the activity poses an imminent safety threat or puts a sensitive resource at risk beyond what is already permitted.

SCE Specialty Monitors (Environmental Intelligence, Epsilon and RBF)

SCE Specialty Monitors shall be assigned as needed to perform monitoring tasks when project mitigation measures, APMs and permit conditions require a specifically qualified monitor to protect designated resources. An LM may perform specialty monitoring if he or she has the appropriate qualifications and experience. The SCE Specialty Monitors have the authority to redirect any construction activities associated with the project, when it is safe to do so, if the activity poses an imminent threat or puts a sensitive resource at undue risk beyond that already permitted

Construction Managers

SCE Construction Managers provide support to the SCE Construction Project Manager and oversee the activities of construction personnel. The SCE Construction Managers shall be based out of SCE's offices, but may also be available in the field on an occasional basis. SCE Construction Manager responsibilities include:

- Ensuring compliance with SCE specifications, project mitigation measures, APMs, permit conditions, MMCRP policies, construction contracts, and applicable codes
- Communicating construction needs and schedule changes to the SCE Compliance Team
- Regularly facilitating field meetings with construction and environmental staff

Construction Leads

At SCE's discretion, on-site construction leadership may be delegated to Construction Leads, such as a crew foreman. SCE Construction Leads provide support to the SCE Construction Managers, and shall be responsible for communicating with SCE Construction Managers and EIs to conduct day-to-day project activities in compliance with mitigation measures and APM requirements, permit conditions, and the MMCRP, as directed by the SCE Compliance Team. Key roles of SCE Construction Leads are to plan construction activities around environmental requirements, as well as to identify and report potentially infeasible challenges to construction to the SCE Compliance Team.

Construction Workers

Construction workers who enter the project site are responsible for following all mitigation measures and APM requirements, permit conditions, and the MMCRP. Construction workers are responsible for attending required environmental training(s) applicable to their position, and directing any questions to the SCE Construction Managers, SCE Construction Leads, and/or LMs.

Subcontractors

SCE may elect to use subcontracted construction crews on the project. Under the direction of SCE, subcontracted construction crews are responsible for complying with mitigation measures and APM requirements, permit conditions, and the MMCRP.

2.3 California Public Utilities Commission

2.3.1 CPUC Project Manager

The CPUC PM has overall responsibility for ensuring that mitigation measures and APMs are implemented as adopted by the CPUC. The CPUC PM will determine the effectiveness of the MMCRP based on the implementation of the measures included in the mitigation monitoring table in Section 6. The CPUC delegates field monitoring and reporting responsibilities to third-party EMs during construction and will oversee their work through telephone calls and review of daily and weekly status reports. The CPUC PM will be notified of all noncompliance situations and may suggest measures to help resolve the issue(s).

Important: The CPUC PM will issue NTPs for construction of each work package identified by SCE. However, the CPUC's NTP does not authorize construction to start if additional approvals are required from other agencies and such approvals have not been obtained at the time of issuance of an NTP. *No construction may occur on other jurisdictional lands without specific approval by those agencies.*

2.3.2 CPUC Environmental Monitor (Aspen)

SCE has primary responsibility for ensuring that construction activities are conducted in accordance with approved Project mitigation measures, APMs, compliance plans, and permit conditions. The role of the CPUC third party monitor (Aspen) is to ensure that compliance is being achieved and to document compliance using verbal and written communications.

The overall monitoring program will be administered under the direction and oversight of the CPUC PM. The CPUC will delegate daily monitoring and reporting responsibilities to a third-party monitor (Aspen). The number of third-party monitors (CPUC EMs) and frequency of site inspections will depend on the number of concurrent construction activities and their locations with respect to sensitive resources and land uses, and compliance with Project mitigation measures, APMs, and permit conditions during construction.

- **Aspen Monitoring Manager.** The Monitoring Manager supervises Aspen's CPUC EMs, determines the appropriate inspection frequency, and is responsible for weekly report preparation. The Monitoring Manager also serves as the main point of contact with the CPUC Project Manager (CPUC PM) for major compliance matters.
- **Aspen Project Liaison.** The Project Liaison provides a direct line of contact with CPUC management and legal, as well as SCE, regarding public complaints and other issues. This person facilitates the development of new procedures to address new issues as they arise.
- **Aspen CPUC Environmental Monitors (CPUC EMs).** CPUC EMs will conduct the day-to-day monitoring and be the primary point of contact with in-field agency and project personnel. CPUC EMs will be an integral part of the project team and will stay apprised of construction activities and schedule changes, and will monitor construction activities for compliance with project mitigation measures, APMs, compliance plans, and permit conditions. The CPUC EMs will document compliance through

daily logs and provide input for the weekly reports. The CPUC EMs shall note any issues or problems with implementation of mitigation/APM/permit conditions, notify the appropriate designated project members, and report problems to the CPUC PM. All other issues will be brought to the attention of the SCE field representative to address appropriately.

Important: The enforcement authority of the CPUC EM in the field is limited to conditions posing imminent safety or resource endangerment concerns at a work location. The CPUC EM is authorized to temporarily stop work under these conditions if it is safe to do so. SCE will address the identified issues. Only the CPUC PM has authority to shut down the project completely.

3. Communication

Good communication is essential to successful implementation of an environmental mitigation compliance program. To avoid Project delays, CPUC and SCE environmental and construction representatives will interact regularly and maintain professional, responsive communications at all times. SCE representatives will coordinate closely with CPUC EMs throughout the monitoring effort to ensure that issues are addressed and resolved in a timely manner. To that end, this section provides a communication protocol for the timely and accurate dissemination of information to all levels of the Project regarding surveys, plans, mitigation measures, construction activities, and planned or upcoming work.

3.1 Communication Protocol

To ensure that the CPUC EMs can get accurate information on ongoing surveys, construction work, and schedules, the following protocols have been established:

- The CPUC EMs' primary point of contact will be the Lead Monitor. If not available, the Environmental Compliance Manager will be the point of contact. If issues arise and cannot be resolved at this level, the issue will be elevated to the CPUC EM Project Manager/Environmental Compliance Lead via e-mail or telephone.
- The Environmental Lead Monitor or Environmental Compliance Manager will inform CPUC EMs of all current and planned survey and construction activity, including status of permits and activity locations, in a timely manner. Timely notification must be sufficient to allow response time for CPUC monitors to be present for that activity.
- The CPUC EM and other designated agency representatives or staff may talk to anyone on the construction site to ask questions about their activity, but the construction personnel may opt to refer the CPUC EM to the Environmental Lead Monitor or other designated person. The Environmental Lead Monitors are the appropriate contacts for obtaining information on construction activity schedules or construction practices.
- SCE will provide to the CPUC EM a list of all construction monitoring personnel and managers, identified by work package or component, title, and contact information. An updated list will be distributed as needed to keep all parties informed of monitor and staff additions/changes, as well as construction scheduling changes. This list of personnel, subsequent updates, and construction schedule changes will be distributed to all persons on the list throughout the construction process.
- The CPUC EM will continue to report compliance concerns first to the Lead Monitor(s) and give them time to resolve compliance issues. If this includes discussions with resource agencies, documentation of such communication and of any subsequent actions to be undertaken to achieve compliance will be provided to the CPUC EM. If the concern involves a permit, because SCE is the permit holder with jur-

isdictional agencies, the Environmental Compliance Manager or SCE Lead Biologist/Archaeologists will consult with the applicable resource agencies. If the CPUC EM has an ongoing unresolved concern about a mitigation measure that could affect a permit condition or could result in resource endangerment, the Environmental Compliance Manager will call the appropriate resource agency to discuss the issue. The Environmental Compliance Manager will take the lead in the coordination effort and in resolving the issue.

- The resource agencies will be notified immediately (within 24 hours) by the Environmental Compliance Manager of any substantive issues regarding resources under their jurisdiction and of any actions taken to resolve the issue, consistent with permit requirements. In addition, the CPUC EM will receive immediate notification of these communications if not already aware of the issue and action.
- Prior to or subsequent to agency notification, the Environmental Compliance Manager, assisted by the SCE Lead Biologist and/or Archaeologist, will develop a plan to resolve the issue and will follow up with the respective agencies to explain the strategy and receive agency approval.
- SCE will expeditiously provide verbal notification and/or submit a preliminary electronic notification of a suspected event, followed by a timely submittal of a final notification that more fully characterizes the event, actions, and outcomes.
- If a “take” of a biological resource is imminent or if there is a danger/hazard to a special status biological resource, the CPUC EM can request that work be stopped in that area immediately (as long as it can be done safely); this request should be made to the Environmental Lead Monitor or SCE Lead Biologist on site. At any time, anyone can order an activity to be halted temporarily if a take or a hazard is imminent.
- Bi-weekly conference calls will include a discussion of construction and compliance activities, with CPUC EM, Environmental Compliance Manager, SCE Lead Biologist, SCE Lead Archaeologist and SCE Contracted Lead Monitor, and agency staff participating.

3.2 Pre-Construction Compliance Coordination

SCE is required by the terms of the mitigation measures, APMs, and permitting requirements of other agencies to prepare various plans and obtain approval of these plans, in addition to performing surveys and studies prior to construction. SCE will conduct meetings, conference calls, and site visits with the CPUC, technical representatives of the CPUC third-party monitor, and other agencies. The purpose of the pre-construction compliance coordination process is to:

- Discuss and document the status of all required SCE’s submittals,
- Document the findings of data reviews and jurisdictional agency approvals,
- Review SCE submittals,
- Document the status of mitigation measures/APMs as they apply to the Project or phased work packages, and
- Discuss refinements or minor changes to the Project.

The goal of the pre-construction process is to complete all required actions so the CPUC and other agencies, as appropriate, can issue NTP authorizations for each Project work package.

A pre-construction meeting will be held with the CPUC, SCE, and CPUC EMs to review the MMCRP and mutually agree upon the Project’s communication protocol. Based on discussion at the meeting and ongoing input from each party, this MMCRP will be updated. Other pre-construction activities include the following:

- Inclusion of mitigation requirements in contract designs, instructions, and specifications
- Field verification of work locations to confirm any need for siting adjustments based on the presence of sensitive resources
- Field verification of any construction yard sites

3.3 Coordination during Construction

Many mitigation measures were derived from specific permit conditions or agency input. The CPUC EM, along with SCE, will be responsible for contacting resource agencies and immediately notifying them of issues arising with regard to matters under their jurisdiction. CPUC shall be copied on all correspondence (email or letter) and provided copies of documentation that flow between SCE and resource agencies. If an unresolved issue regarding compliance with a mitigation measure affects a permit requirement under the jurisdiction of a resource agency, the CPUC EM will contact the Environmental Compliance Lead and they will contact the agency to discuss resolution.

3.4 Daily Communication

Generally, problems encountered during construction can be resolved in the field through regular communication among the SCE Lead Monitors, construction contractors, and CPUC EMs. Field staff will be equipped with cell phones and will be available to receive phone calls at all times during construction. The Project contact list will be provided and updated as needed by SCE.

3.4.1 CPUC EMs

The CPUC EM's primary point of contact in the field is the SCE Lead Monitor. The CPUC EM will contact the Lead Monitor if an activity is observed that conflicts with one or more of the mitigation measures, APMs, or permit conditions, so that the situation can be corrected by SCE. If the CPUC EM cannot immediately reach the Lead Monitor, the Environmental Compliance Manager will be contacted to address the issue. Similarly, the CPUC EM will contact the Lead Monitor for information on where construction crews are working, the status of mitigation measures, and for schedule forecasts. The CPUC EM may discuss construction procedures directly with the construction contractors; however, SCE may require its construction contractors to defer questions to an onsite SCE representative. In all cases, the CPUC EM will contact the designated SCE representative if a problem is noted that requires action from the construction contractor or SCE.

Important: The CPUC EM will not direct the construction contractor, but will contact the designated SCE contact person. In the event an activity imposes an imminent threat to a sensitive resource or an undue risk, the CPUC EM will try to contact the Lead Monitor, who has the authority to stop work; however, if they are not immediately available, the CPUC EM has the authority to stop work at that location if it is safe to do so.

3.4.2 SCE

SCE will provide the CPUC and the CPUC monitoring team with a contact list identifying construction monitoring personnel and construction supervisory staff to contact regarding compliance issues. The contact list will include each person's title and responsibility, including the names of SCE and CPUC EMs, project managers, supervisory staff, and other members of the team. The list shall include phone numbers and e-mail addresses where team members can be reached during construction. The contact list will be updated and redistributed as necessary by SCE as new personnel are assigned to the Project. [Note: this list is confidential and will not be published or posted on the website.]

SCE and/or its contractors will hold daily onsite meetings that the Lead Monitor will attend. Prior to beginning the day's work at a job site, a tail-board briefing will be held by SCE and/or its contractor. Possible subjects include reemphasizing safety and identifying any specific safety concerns associated with that day's operation, potential environmental issues that workers should be aware of, etc.

3.5 Scheduled Communications

3.5.1 SCE Compliance Report

SCE will prepare and distribute a weekly environmental compliance status report for distribution to key team members, including the CPUC. The CPUC EM will review the weekly report to ensure that the status of mitigation measures, APMs, and permit conditions is consistent with observations in the field. Questions regarding the status of mitigation measures will be directed to the Environmental Compliance Manager. The weekly environmental compliance status report also will be a tool to keep all parties informed of construction progress and schedule changes.

3.5.2 Scheduled Progress Meetings

SCE will conduct weekly field meetings with construction managers, supervisors, SCE's environmental representatives, and other appropriate staff to discuss work completed, work anticipated for the following period, and the status of mitigation measures. The weekly field meetings also will provide a forum for discussing environmental compliance issues or concerns.

SCE may request that CPUC's and other agency's EMs participate in the field meetings to help resolve issues, if any, that may have arisen during the previous period and to anticipate potential issues that may arise in the upcoming activities. Alternatively, the SCE Lead Biologist and/or Lead Archaeologist or the CPUC's EMs may recommend a separate meeting to discuss mitigation, project change requests, or other Project-related issues. These meetings may be held at a designated office location or on the Project site.

3.5.3 Scheduled Conference Call

The SCE Lead Biologist, SCE Lead Archaeologist and Environmental Compliance Manager, CPUC PM, the CPUC EM, and other parties may participate in a bi-weekly teleconference call. The teleconference calls will be scheduled for an agreed date and time and will be used to identify actual or potential issues and discuss solutions. The conference calls will focus on the Mitigation Monitoring Program and project progress generally.

3.5.4 As Needed Interagency Conference Calls

From time to time during the pre-construction process or during construction, the CPUC, resource agencies, and/or SCE may determine that conference calls may be necessary or appropriate to discuss the status of specific mitigation compliance as they relate to permit requirements. These calls will be scheduled in advance, to the extent feasible, by e-mail, and will include the SCE Environmental Compliance Manager or designee. An agenda will be provided before the call.

4. Environmental Compliance and Field Procedures

4.1 Pre-Construction Compliance Verification

Prior to beginning construction, SCE is required by the terms of the mitigation measures, APMs, and various permits and approvals for other regulatory agencies, to prepare and obtain approval of various plans and to perform various surveys and studies. Copies of plans, surveys, and studies will be retained by Aspen and will be provided to the CPUC with all files at the completion of the Project. The plans, surveys, studies, and other documentation required to be completed by SCE before construction are identified in Section 6.

While these documents are being reviewed by the approving agencies, they also are reviewed by the CPUC and its representatives. Resource agencies will also be involved in the review of applicable plans and reports.

The CPUC third-party EMs, including project management staff and technical experts, will review and provide comments on all mitigation plans and reports. As appropriate, resource agencies also will be involved in the review of applicable plans and reports, and will provide comments. Comments on these documents will be provided to SCE to ensure that they adequately accomplish the intended reduction in impacts. For required local and State agency permitting/consultations, the CPUC EM will track SCE's progress as it relates to SCE's construction plans and project mitigation, APMs, and permitting requirements. Based on SCE's construction plans, CPUC may authorize construction to begin on a phased basis, and the CPUC EM will handle pre-construction compliance review accordingly. CPUC may issue NTPs for construction of each phase separately, as soon as pre-construction compliance is satisfactorily accomplished for that phase.

Important: Compliance with all pre-construction mitigation measures and APMs will be verified prior to construction, and construction may not start on any work package before SCE receives a written NTP from the CPUC PM and other necessary approvals, if any. In general, the CPUC will not issue an NTP until all pre-construction requirements have been fulfilled for a given phase. To save time, SCE should identify all required work space needs for each phase of construction prior to the start of active construction, so that the locations and their use can be included in the NTP.

4.1.1 Notice to Proceed Procedures

CPUC must issue a Notice-to-Proceed (NTP) before construction can start.

SCE will submit a formal request for an NTP. If needed, minor project change requests can be submitted by SCE along with the NTP request for incorporation into the NTP (see Section 4.2.3 for minor project change submittal requirements). On projects where there may be multiple spreads or work sites, SCE may elect to request separate NTPs. Each separate NTP request will be applicable to a defined segment or aspect of the Project.

CPUC will review the NTP request and the applicable pre-construction requirements to ensure that all of the information required to process and approve the NTP is included. CPUC may request additional information or clarification as needed. Based on information provided in the request for an NTP and its review, CPUC will issue the NTP.

In general, an NTP request must include the following:

- A description of the work
- Detailed description of the location, including maps, photos, and/or other supporting documents
- Verification that all mitigation measures, permit conditions or requirements, APMs, project parameters, or other project stipulations have been met, apply, or do not apply to the work covered by the NTP request
- In a case where some outstanding requirements cannot be met prior to issuance of the NTP, an outline of outstanding submittals and how they will be met prior to construction
- Up-to-date resource surveys or a commitment to conduct surveys and submit results prior to construction
- Cultural resource surveys or verification that no cultural resources will be significantly impacted
- Copies of permits issued by other agencies, including requirements
- Date when construction is anticipated to begin and duration of work

Section 6 lists the mitigation measures and APMs, the timing for implementation, and whether CPUC review or approval is required before construction can begin. For reference, the NTP issued by CPUC will reiterate CPUC and other agency conditions or requirements that must be satisfied, either before work begins or during construction. The NTP will state whether pre-construction requirements in mitigation measures, APMs, and permits have been met, including the completion of any applicable surveys and studies to be undertaken. If compliance with some requirements cannot be met prior to NTP issuance, the reasons will be identified by SCE and noted in the NTP. At its discretion, CPUC may issue the NTP with conditions. In such an event, the NTP will clearly define any limitations that apply and the actions to be taken and documented by SCE prior to construction.

4.1.2 Compliance Reporting

The CPUC EM will perform compliance inspections throughout construction to ensure compliance with all applicable mitigation measures, APMs, plans, permits, and conditions of approval from CPUC and other agencies. The CPUC EM will document observations in the project area through field notes and digital photography. The photographs will be incorporated in weekly reports and related to a discussion of specific construction or compliance activity. In addition, daily field logs documenting compliance of specific crews, construction activities, or resource protection measures will be maintained. Field logs will be used to prepare weekly reports and to track and update the status of mitigation measures listed in Section 6.

Site visits by CPUC may be coordinated with SCE or be unannounced. Supplemental information provided by SCE, including pre-construction submittals, survey reports, weekly reports, meeting notes, and agency correspondence also will be used to verify compliance.

Compliance documents and reports will be posted on the CPUC public website, accessible at:

http://www.cpuc.ca.gov/Environment/info/aspen/downs_sub/index.htm

4.1.3 Compliance and Non-Compliance Levels

Project compliance and non-compliance violation levels that will be used and the specific actions by the CPUC monitoring team are as follows:

- **Level A Compliance.** All mitigation measures and permit conditions are being complied with and there are no violations. No corrective action is necessary.

- **Level B Non-Compliance.** One aspect of a mitigation measure is not in compliance, resulting in only partial implementation of a measure or permit condition, but there has been no significant impact as a result.

Action: A verbal notice shall be given to the Environmental Compliance Lead (or assigned designee) and corrective action shall be required of SCE within one day or other maximum period, as determined by the CPUC EM.

Follow up: If corrective action is not taken within the stated period, a Project Memorandum (written warning) will be issued. If Level B Non-Compliances are allowed to continue, the non-compliant activity could result in a significant impact over time. Therefore, the frequency of Level B Non-Compliances will be tracked by the CPUC EM.

If corrective action is not taken or does not address Level B Non-Compliance trends, a Non-Compliance Report (NCR) will be issued. The NCR will note that failure to resolve the identified condition or situation may lead to a project stop work order and/or action under the CPUC's CEQA Citation Program.

- **Level C Non-Compliance.** One or more of the aspects of a mitigation measure or permit condition are not in compliance, and the implementation of a mitigation measure is deficient or non-existent, resulting in potentially significant impact(s) or an immediate threat of major, irreversible environmental damage or property loss.

Action: A verbal notice shall be given to the Environmental Compliance Lead (or assigned designee), followed immediately by an NCR sent to SCE's EC (or assigned designee). Corrective action shall begin immediately.

Follow up: If corrective action is not taken immediately or the corrective action is insufficient, the CPUC EM shall notify the CPUC PM, Aspen Monitoring Manager, and Aspen Liaison, who will review courses of action available.

- **Level D Stop Work Order.** The CPUC has the authority to shut down project construction. Stop Work Orders halt construction and are issued when a compliance violation continues over an extended period of time, is repeated several times, or when a violation could cause harm to a resource.

Action: Based on the severity of a given infraction or pattern of non-compliant activity, the CPUC Energy Division Director may direct that all or some portion of the work be stopped. This order will be conveyed directly from the Director or through the CPUC PM.

Follow up: If a shutdown of construction or an activity is ordered, the construction or activity shall not resume until authorized by the Energy Division Director or CPUC PM in writing.

Important: CPUC also may exercise the CEQA Citation Program adopted by the Commission in Resolution E-4550. The program delegates authority to Commission staff to draft and issue citations and levy fines for non-compliance with a PTC or CPCN. The Resolution allows Commission staff to efficiently issue fines when needed to quickly address non-compliance issues that are occurring in the field.

A non-compliant event regarding environmental resources may involve other agencies, in which case, the CPUC EM will:

- Confirm that SCE has informed the applicable resource agency when non-compliant actions have the potential to harm an environmental resource or species (outside the reporting process associated with incidental takes as permitted by the resource agency).
- If timely notification is not made by SCE, the CPUC EM will contact the applicable resource agency.

If permit or resources issues are involved, the CPUC and/or resource agencies may order work stoppages and the development of strategies for successful resource/species protection, consistent with the applicable permit or mitigation measure.

Important: The CPUC EM does not have the authority to shut down or restart construction, nor shall the CPUC EM direct the work of a construction contractor or subcontractor. However, if an imminent threat to safety or an unpermitted risk to a sensitive resource is observed, the CPUC EM has the responsibility to advise the SCE or contractor site manager to immediately cease the threatening activity until the situation is rectified, as long the activity can be stopped safely. The CPUC EM shall immediately notify the CPUC PM and Aspen Monitoring Manager and report the status. If not action is taken by SCE in response to the situation, CPUC will determine next steps.

4.1.4 Compliance Reporting and Documentation

All non-compliant activity will be recorded and reported. Based on the severity of the non-compliant event, notice to CPUC will be immediate or in the weekly report.

The CPUC EM will determine whether the observed construction activities are consistent with mitigation measures, APMs, and project parameters as identified in the Final MND and adopted by the CPUC, as well as any applicable permit conditions. All observations and communications will be noted in a logbook. Deviations from mitigation measures, APMs, or permit conditions will be considered non-compliant events and will be documented.

4.1.5 SCE Reportable Events

Unanticipated events may occur that impact project personnel, public safety, or resources and may not be observed by the CPUC EM. While these events may not result in a deviation from or violation of a mitigation measure or permit condition, it is important that these events be reported to the appropriate agencies and the CPUC so they are in a position to respond to questions or concerns from the public or managers. Accordingly, SCE will immediately report these events to the CPUC and other regulatory agencies as appropriate. SCE will submit to the appropriate agency, if any, and to CPUC a final verbal or electronic notification characterizing the event, actions taken, and outcomes.

Examples of reportable events are:

- any event a mitigation measure failed to address
- a violation of a permit condition
- an occurrence that posed or could have posed a risk to public health and safety
- any event requiring emergency response
- a 'near miss' event involving construction equipment and, in SCE's reasonable judgment, had the potential to result in serious bodily harm or death.

4.2 Dispute Resolution

The MMCRP will likely reduce or eliminate many potential disputes. However, even with the best preparation, differences in mitigation implementation approaches may occur. Issues should first be addressed informally at the field level, between the CPUC EM and SCE's Lead or Environmental Monitors and/or the SCE Lead Biologist and/or Lead Archaeologist, or at the regular progress meetings. Questions may be raised to the SCE Environmental Compliance Manager and the SCE Construction Project Manager. Should the issue persist or not be resolved at these levels, the following procedures will be used.

- Step 1.** Differences in mitigation implementation approaches, disputes, and complaints (including those of the public) are directed to the CPUC PM for resolution. The PM will attempt to resolve the dispute with SCE's Environmental Project Manager.
- Step 2.** If Step 1 fails to resolve the issue, the CPUC PM may initiate enforcement or compliance action to address deviations from the Project or adopted MMCRP, if they have occurred without prior authorization. The CPUC Project Manager may issue a formal letter requiring corrective actions to address the unresolved or persistent deviations from the Proposed Project or adopted Mitigation Monitoring Program.
- Step 3.** If the differences, dispute, or complaint cannot be resolved informally or through enforcement or compliance action by the CPUC, the affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) will meet or confer with the filer and other affected participants to resolve the dispute. The Executive Director will issue an Executive Resolution describing the decision, and serve the filer and other affected participants.
- Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Involved parties may also seek review by the Commission through procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

Separate enforcement steps by the regulatory agencies may follow different steps or procedures. The CPUC PM and the SCE Lead Biologist and/or Archaeologist will coordinate with other permitting agencies for issues outside the CPUC jurisdiction.

The dispute resolution process could occur concurrently with the communication protocol during construction for non-compliant events.

Separate dispute resolution or enforcement steps involving other regulatory agencies would follow that agency's procedures.

4.3 Project Refinements

4.3.1 Transition from Preliminary Design to Final Engineering

The MND for the Project is based on preliminary design. Because the Project has now been approved by CPUC and other jurisdictional agencies, SCE has been in the process of completing final project design and engineering. Some project component locations may have been refined as engineering progresses in order to comply with mitigation measures, avoid or minimize environmental impacts, and reduce or eliminate feasibility constraints.

Mitigation measure requirements were finalized at the time of project approval, and pre-construction compliance submittals will be reviewed based on the requirements in these measures. The process outlined below allows for changes in the case of unforeseen circumstances, as long as the intent of the mitigation measure is satisfied (i.e., the impact is mitigated as intended, consistent with residual impact determinations in the MND).

4.3.2 Project Changes

At various times throughout project construction (following approval of final design plans), changes to the Project requirements may be needed to facilitate construction or provide more effective protection of resources. When changes are necessary for specific field situations, SCE and CPUC, in consultation with the applicable resource agencies, will work together to find solutions that avoid conflicts with adopted mitigation measures.

4.3.3 Minor Project Changes

The CPUC PM, along with the CPUC Monitoring Team, will ensure that any process to consider minor project changes that may be necessary due to final engineering or variances or deviations from the procedures identified under the monitoring program is consistent with CEQA requirements.

- No project changes will be approved by the CPUC PM if they
 - would be located outside of the geographic boundary of the project study area,
 - create new or substantially more severe significant impacts, or
 - conflict with any mitigation measure or applicable law or policy.
- Minor project changes are strictly limited to changes that
 - will not trigger other permit requirements unless the appropriate agency has approved the change, and
 - clearly and strictly comply with the intent of the mitigation measure or applicable law or policy.

This determination is ministerial, and shall be made by the CPUC Project Manager. SCE must seek any other project changes by a Petition for Modification (PFM). Should a project change require a PFM, supplemental environmental review under CEQA would be required.

Requests for staff approval of a minor project change must be made in writing and should include the following:

- A detailed description of the proposed minor changes, including an explanation of why the refinements are necessary, and a reference to the approved documents.
- Photos, maps, and other supporting documentation illustrating the difference between: the existing conditions in the area, the approved project, and the proposed minor changes.
- The potential impacts of the proposed minor changes, including a discussion of each environmental issue area that could be affected by the minor changes with accompanying verification that there will be no substantial increase in the severity of any previously identified significant impacts to resources affected by the project and no new significant impacts, after application of previously adopted mitigation.
- Whether the minor changes conflict with any applicant proposed measures or mitigation measures.
- Whether the minor changes conflict with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute or policy.
- Water/wetland/storm water related resource information if the minor changes would result in any additional land disturbance, road distance or width, changes to jurisdictional delineation of waters, or changes to water protection best management practices.
- Date of expected construction at the minor changes site area.

The CPUC PM may request additional information or a site visit in order to process the request. Possible examples of changes that may be approved by staff after final engineering include, but are not limited to:

- Adjusting the alignment of a project within the study area that was used in the original environmental analysis to avoid unanticipated impacts related to cultural artifacts, buried utility infrastructure, hazardous and toxic substances, and other land use impacts including effects on homeowners, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.
- Adjusting the alignment of a project within the study area that was used in the original environmental analysis to avoid or adapt to conditions on the ground that vary from the conditions that existed at the time of the original environmental analysis, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.

Important: To initiate a project minor changes request, SCE will fill out a Project Minor Change Request Form (see Attachment B), prepare the appropriate supporting documentation, and obtain the required signatures. SCE will complete and submit the Project Minor Change Request Form and supporting documentation by email (scanned copy) to the CPUC Project Manager with a copy to Aspen.

The CPUC Monitoring Team will review the request to ensure that all of the information required to process the minor project change is included, and then forward the request to the CPUC Project Manager for review and approval. The CPUC Project Manager may request a site visit from the CPUC EM, or may request additional information to process the request. In some cases, project minor changes may require approval by jurisdictional agencies as well.

All approved minor change requests will be tracked in tabular format in the weekly reports.

4.3.4 Temporary Extra Work Space Procedures

For the purposes of this MMCRP, Temporary Extra Work Space (TEWS) is defined as a preexisting work space (i.e., no site preparation is required) that would be used by SCE during construction for a period of up to 60 days, and that was not specifically identified and evaluated during the CEQA process. Anything required to be utilized for a period longer than 60 days will require a minor project change approval (see Section 4.3.3).

In the event that SCE determines a need for a construction TEWS, it must submit such a request to the CPUC, consistent with the communication protocol. SCE will not be permitted to use a TEWS prior to receiving written authorization from the CPUC. If appropriate, SCE will also send a copy of the TEWS to affected jurisdictional agencies.

SCE must demonstrate that:

- (1) the TEWS is located in a disturbed area with no sensitive resources or land uses onsite or within proximity of the proposed work space such that they may be significantly impacted by the work,
- (2) SCE has permission of the applicable landowner (e.g., municipality or private) to use the work space, and
- (3) use of the TEWS will not result in any significant environmental impacts.

Following is a list of the specific information that SCE would be required to submit with its TEWS request:

- Date of request
- Location of the TEWS (detailed description, including maps if required)

- Property owner of TEWS
- An explanation of the need for the TEWS
- An analysis that demonstrates no new significant impacts will result from use of the TEWS including: compaction contributing to runoff rates or other stormwater/watershed effects; observed existing impacts to the site, such as old oil spills or other potentially hazardous or polluting substances; abandoned vehicles, equipment, or other materials; or other sensitive resources
- Biological and botanical surveys if appropriate
- Cultural resource survey
- Duration and dates of expected use of the TEWS
- Details of the expected condition of the site after use

A sample TEWS form is included as Attachment C.

5. Records Management

Weekly status reports will be filed and used by the CPUC third-party EM to prepare a final environmental compliance report following the completion of construction. The final report will provide an overview of construction and a discussion of environmental compliance and lessons learned.

5.1 Public Access to Records

A publically accessible website for the Project is maintained by the CPUC to make available current versions of reports and other documents prepared for mitigation compliance.

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available by the CPUC for public inspection on request, consistent with critical infrastructure requirements, requirements to protect cultural resources, and General Order (G.O.) 66-C. In order to facilitate the public's awareness, the CPUC will post this MMCRP document, weekly reports, and other pertinent Project documents on the CPUC public website. Other monitoring compliance reports, copies of permits, and documents will be available in their final form on the Project website once they are approved by the CPUC or other permitting agencies. Access to Critical Energy Infrastructure Information (CEII) documentation, the location of protected cultural resources, and other information meeting the standards for non-disclosure set forth in G.O. 66-C will not be available on the public Web site.

The CPUC public website is accessible at:

http://www.cpuc.ca.gov/Environment/info/aspern/downs_sub/index.htm

6. Mitigation Measures and APMs

The following table includes the mitigation measures and APMs from the MND. The table indicates the resource of concern, the measure to be implemented, the monitoring requirement, and when the measure is to be implemented.

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Aesthetics			
Existing Visual Character	V-1 Downs Substation expansion area Landscaping Plan. SCE shall provide landscaping that is effective in screening the proposed substation expansion area and existing facilities from surrounding views. Trees and/or shrubs must be strategically placed and of sufficient density and height to effectively screen the majority of structural forms within five years of Project construction. SCE shall submit a Landscaping Plan to the city of Ridgecrest for review and approval and shall include a detailed list of plants to be used and times to maturity given their size and age at planting. The Landscaping Plan shall also be submitted to the CPUC for review. The Landscaping Plan shall be submitted at least 90 days prior to installing the landscaping. SCE shall not implement the plan until approval of the submittal from the CPUC and the city of Ridgecrest is received. If the CPUC notifies SCE that revisions of the plan are needed, within 30 days of receiving that notification, SCE shall prepare and submit to the CPUC a revised plan. SCE shall notify the CPUC within seven days after completing installation of the landscaping that the landscaping is ready for inspection.	Review Landscaping Plan and perform on-site inspection following installation of initial landscaping and during operations to ensure screening criteria met.	Submit Landscaping Plan at least 90 days prior to installing landscaping; Implement during construction and during operation
Light and Glare	V-2 Surface Treatment Plan. Galvanizing is required for substation structural steel components and steel poles. To reduce the potential for daytime structural glare related to the new galvanized steel poles, SCE will dull (remove shine inherent with the galvanizing process) from the poles. At least 90 days prior to the planned erection of structural steel poles, SCE shall submit to the CPUC a Surface Treatment Plan containing a description of the galvanizing specifications, and samples showing the range of dulling for the steel poles. The CPUC shall approve the Surface Treatment Plan, or otherwise inform SCE what modifications to the Surface Treatment Plan are necessary, within 30 days after the Plan's submittal by SCE. SCE shall not implement the Surface Treatment Plan until the plan has been approved by the CPUC. Prior to the completion of construction, SCE shall provide the CPUC with documentation that the substation structural components and poles have been galvanized and the new steel poles dulled in accordance with the specifications detailed in the approved Surface Treatment Plan.	Review and approve plan for surface treatment of substation steel components and steel poles; Inspect all structures and components upon delivery to the project site, prior to installation.	Submit Surface Treatment Plan at least 90 days prior to (a) ordering first structures that are to be dulled (i.e., removal of shine) during manufacture or (b) construction of any of the substation components before the Surface Treatment Plan is approved. Implement prior to and during construction, with inspection prior to installation.
	V-3 Downs Substation expansion area Nighttime Lighting Mitigation Plan. SCE shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a Lighting Mitigation Plan to the city of Ridgecrest for review and comment prior to submitting the plan to the CPUC for review and approval. The plan shall be submitted to the CPUC at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SCE shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The plan shall include, but is not necessarily limited to, the following:	Review plan for permanent lighting and descriptions of fixtures, hoods, and shields and implementation of lighting	Submit Nighttime Lighting Mitigation Plan at least 90 days prior to ordering any permanent exterior lighting fixtures or components. Implement during construction and inspect following commercial operation.

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<ul style="list-style-type: none"> • Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary. • All lighting shall be of minimum necessary brightness consistent with operational safety and security. • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied. • Appropriate brochures and other descriptive materials describing the lighting components to be employed at the substation are to be included in the plan. • Lighting shall meet the requirements of the City of Ridgecrest General Plan Goal OSC-2.6, Control of Lighting and Glare. 		
Air Quality			
Construction-Phase Air Quality	<p>AQ-1-Implement Fugitive Dust Control Plan. The Applicant shall develop a Fugitive Dust Control Plan to reduce PM10 and PM2.5 emissions during substation construction. The Fugitive Dust Control Plan shall include:</p> <ol style="list-style-type: none"> a. Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan; b. Description and location of operation(s); and c. Listing of all fugitive dust emissions sources included in the operation. d. The following dust control measures shall be implemented: <ol style="list-style-type: none"> i. All on-site unpaved roads shall be effectively stabilized in a manner that can be determined to be as efficient as or more efficient for fugitive dust control than Air Resources Board-certified soil stabilizers, and shall not increase any other environmental impacts including loss of vegetation. ii. All material excavated or graded will be sufficiently watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. Excavated soil piles shall be watered as needed and in compliance with Eastern Kern Air Pollution Control District (EKAPCD) Rule 402 and Mojave Desert Air Quality Management District (MDAQMD) Rule 403.2 (as applicable) for the duration of construction or covered with temporary coverings. iii. Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when those activities cause visible dust plumes that extend beyond the substation fence line, or extend more than 100 yards from the activity causing the dust for construction activities occurring outside of the substation. iv. Track-out shall not extend 25 feet or more from an active operation and track-out shall be 	Perform on-site inspections during construction to ensure control measures are properly implemented.	Submit Fugitive Dust Control Plan at least 90 days prior to construction to CPUC for review and approval; Implement during construction.

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<p>removed at the conclusion of each workday.</p> <p>v. Shaker plates and gravel beds will be used and maintained throughout the construction period to remove bulk material from tires and vehicle undercarriages before vehicles exit the Downs Substation property.</p> <p>vi. All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions), and shall have adequate freeboard to avoid spillage around the edges of the cover.</p> <p>vii. Traffic speeds on unpaved roads shall be limited to 15 mph.</p> <p>viii. Other fugitive dust control measures as necessary to comply with EKAPCD Rules and Regulations.</p>		
Biological Resources			
APM BR-1	In areas where the six subtransmission pole replacements would occur and where the telecommunication cable would be strung, the speed limits on all unpaved areas of the Proposed Project would be a maximum of 15 mph.	Vehicles obey speed limit	During construction
APM BR-2	A Worker Environmental Awareness Program (WEAP) would be prepared, and all construction crews and contractors would be required to participate in WEAP training prior to starting work on the project. The WEAP training would include a review of the special status species and other sensitive resources that could exist in the Project site and vicinity, the locations of the sensitive biological resources, their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all personnel trained would be maintained.	Proof of completion of environmental awareness training for all laborers	Prior to construction and for all laborers prior to work
APM BR 3	Pre-construction biological clearance surveys including surveys and monitoring would be performed to avoid or minimize impacts on special status plants, breeding birds, or wildlife species.	Review clearance survey results and ensure recommendations implemented; Perform on-site inspection	Prior to construction
APM BR-4	All replaced poles would be designed to be avian-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (APLIC, 2006).	Inspect design plans; Perform on-site inspection of replaced poles	Prior to construction, during construction, and operations
APM BR-5	During the installation of fiber optic telecommunication cable and subtransmission poles, potential habitat for the desert tortoise and Mohave ground squirrel will be avoided to the extent feasible. This will be accomplished through restricting vehicles to previously established access roads, with the oversight of biological monitors, and accessing the poles via bucket truck or climbing of the poles. In addition, the biological monitors will be responsible for avoiding impacts to nesting migratory birds (including burrowing owls) and drainages during	Perform on-site inspections of impact areas, construction techniques, and ensure specified areas avoided	During construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	construction through the use of appropriate mitigation measures, as determined by the monitoring biologist.		
Biological Resources Protection	<p>B-1 Implement a Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE, where concurrence has been provided by the CPUC prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to: discussion of the Federal and State Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and their habitats; fire protection measures; sensitivities of working on BLM lands; a contact person in the event of the discovery of dead or injured wildlife; and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC for review and approval at least 30 days prior to the start of construction. Maps showing the location of special-status wildlife, fish, or populations of rare plants, exclusion areas, or other construction limitations (i.e., limited operating periods) will be provided to the environmental monitors and construction crews prior to ground disturbance. SCE shall provide to the CPUC a list of construction personnel who have completed training prior to the start of construction, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without participating in the WEAP.</p>	Proof of completion of environmental awareness training for all laborers	Prior to construction and for all laborers prior to work
	<p>B-2 Implement Best Management Practices (BMPs). BMPs will be implemented as standard operating procedures during all ground disturbance and construction related activities to avoid or minimize Project impacts on biological resources. Compliance with BMPs will be documented and provided to the CPUC in a written report on a monthly basis during construction. The report shall include a summary of the construction activities completed, a review of the sensitive plants and wildlife detected, a list of compliance actions and any remedial actions taken to correct the actions, and the status of ongoing mitigation efforts. These BMPs will include but are not limited to the following:</p> <ol style="list-style-type: none"> a. Prior to ground disturbance of any kind, the Project work areas shall be clearly delineated by stakes, flags, or other clearly identifiable system. At the substation site, the area will be enclosed by tortoise proof fencing. b. Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas when located in areas with habitat for desert tortoise, Mohave ground squirrel, and burrowing owl. c. Speed limit signs, imposing a speed limit of 15 miles per hour, will be installed along the access roads of the Project alignment prior to initiation of site disturbance and/or construction. To minimize disturbance of areas outside of the construction zone, all Project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas will be included in preconstruction surveys and to the extent possible, should be 	Monthly status reports to CPUC documenting BMPs implemented, effectiveness, issues, and Project status	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<p>established in locations disturbed by previous activities to prevent further impacts. Off-road traffic outside of designated Project areas will be prohibited.</p> <p>d. No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage. Spill kits shall be maintained on site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages shall be checked and maintained daily to prevent leaks of materials.</p> <p>e. All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes, etc.) and other human-generated debris will be stored in animal proof containers and/or removed from the site each day. No deliberate feeding of wildlife will be allowed.</p> <p>f. No firearms will be allowed on the Project site, unless otherwise approved for security personnel.</p> <p>g. To prevent harassment or mortality of listed, special-status species and common wildlife, or destruction of their habitats, no domesticated animals of any kind shall be permitted in any Project area.</p> <p>h. Use of chemicals, fuels, lubricants will be in compliance with all local, State and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and federal legislation.</p> <p>i. Any contractor or employee that inadvertently kills or injures a special-status animal, or finds one either dead, injured, or entrapped, will immediately report the incident to the on-site representative identified in the WEAP. The representative will contact the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), U.S. Department of the Interior Bureau of Land Management (BLM) (on BLM-administered lands) and the CPUC by telephone by the end of the day, or at the beginning of the next working day if the agency office is closed. In addition, formal notification shall be provided in writing within three working days of the incident or finding. Notification will include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured will be turned over immediately to CDFG for care, analysis, or disposition.</p> <p>j. SCE shall avoid construction activities resulting in impacts to streambeds and the banks of any ephemeral drainage unless otherwise authorized through the context of a streambed alteration agreement.</p> <p>k. All excavation, steep-walled holes or trenches in excess of six inches in depth that occur in desert tortoise or Mohave ground squirrel habitat shall be covered at the close of each working day with plywood or similar materials, or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to</p>		

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	<p>escape before construction activities are allowed to resume, or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required).</p> <p>I. New light sources at the substation will be minimized, and lighting will be designed (e.g., using downcast lights) to limit the lighted area to the minimum necessary. See also Mitigation Measure V-3.</p>		
Special-Status Plants	<p>B-3 Conduct pre-construction surveys for special-status plants and implement avoidance measures. If construction activities are scheduled to begin within 24 months of the most recent focused botanical surveys (June 2011), then SCE shall conduct reconnaissance level surveys to identify potential rare plants that occur in the Project area. In the event that construction activities are initiated after 24 months following the most recent focused botanical surveys, SCE shall conduct pre-construction focused surveys to locate rare plants that may occur in the Project area. If, during activities associated with installation of the fiber optic telecommunication cable, it is determined that ground disturbance in any areas outside of existing access roads is required, SCE shall conduct focused botanical surveys within the area of disturbance and a 100 foot buffer prior to any ground disturbance.</p> <p>The surveys shall be conducted during the appropriate blooming period(s) by a CPUC-approved plant ecologist/according to protocols established by the USFWS, CDFG, and California Native Plant Society (CNPS).</p> <p>If during the course of surveys, any State or federally listed plants or plants identified as CNPS or California Rare Plant Rank (CRPR) List 1 or 2 are identified in or adjacent to the Project area, these locations shall be clearly marked and avoided through the implementation of appropriate buffer zones. The buffer zone established around these areas shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands, and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by a CPUC-approved plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual. A smaller buffer may be established, provided there are adequate measures in place to avoid the take of the species, with the approval of the USFWS, CDFG, and CPUC. Highly visible flagging shall be placed along the buffer area and shall be maintained in good working order during the duration of any construction activities in the area.</p> <p>Where impacts to listed plants are determined to be unavoidable, the USFWS and/or CDFG shall be consulted for authorization. Additional mitigation measures to protect or restore listed plant species or their habitat, including but not limited to a salvage plan including seed collection and replanting, may be required by the USFWS or CDFG before impacts are authorized, whichever is appropriate.</p>	Review surveys and ensure implementation of avoidance measures; Coordinate with USFWS and/or CDFG, as required	Prior to construction and during construction

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Special-Status Plants (Continued)	<p>B-4 Compensate for impacts to special-status plant species. If Project-related impacts result in the loss of more than 10 percent of the on-site population of any non-listed special-status plant species, compensatory mitigation will be required. Prior to the disturbance of habitat for or take of special-status plants/populations SCE must receive CPUC approval of preserved and/or mitigation lands as well as present documentation of recorded open space easement(s). Compensation will be required for all impacts that exceed the 10 percent threshold (e.g. impacts to 15 percent of a population will only require compensation for 5 percent or the amount of impacts that exceed the 10 percent threshold). To compensate for permanent impacts to special-status plant species, habitat that is not already public land under resource protection shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted). Compensation for temporary impacts shall include land acquisition and/or preservation at a 0.5:1 ratio. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and will contain verified extant populations, of the same size or greater, of the special-status plants that are impacted. Impacts could include direct impacts resulting from loss of habitat or indirect impacts if a significant population or portion thereof is unable to be avoided.</p> <p>Habitat shall be preserved through the use of permanent open space easements or other open space mechanism acceptable to the CPUC. Mitigation lands cannot be located on land that is currently publicly held (i.e., BLM-administered lands) for resource protection.</p>	SCE to submit documentation of impact areas identifying special-status plants to CPUC to determine percent impacted. If more than 10 percent, SCE to submit for CPUC review and approval mitigation lands proposal.	Prior to construction, during construction, and during operation
	<p>B-5 Develop a Habitat Restoration and Revegetation Plan. The intent of this mitigation measure is to require SCE to restore all temporarily disturbed areas to pre-construction conditions or better and to prevent the colonization of noxious or invasive weeds. Should areas subject to temporary disturbance be dominated by invasive plants such as brome or Mediterranean grasses the area will be restored to similar conditions. If temporary disturbance occurs to barren areas such as vacant lots or dirt roads that do not support vegetation seeding, restoration shall not be required; however, weed monitoring for a minimum of one season would be required to ensure the construction activities did not result in the introduction of noxious or invasive weeds. Prior to the removal of any vegetation, the Applicant shall retain a CPUC approved qualified restoration biologist, knowledgeable in the area of restoration in the arid southwest, to prepare a Habitat Restoration and Revegetation Plan (HRRP). This biologist would also be responsible for monitoring the implementation of the plan as well as the progress on achieving the established success criteria. The HRRP will detail a process by which all temporarily disturbed areas are restored to pre-construction conditions or better. The plan shall include, at a minimum, the following items:</p> <p>a. Locations and details for top soil salvage and storage – The HRRP shall identify areas within the construction footprint where topsoil:</p> <ol style="list-style-type: none"> 1) is present; 2) supports native vegetation or acceptable non-native plants; and 	Review Habitat Restoration and Revegetation Plan; Review quarterly and annual progress reports	Prior to construction, during construction, and during operation

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	<p>3) can be salvaged and stockpiled for replacement onto the site during revegetation activities. Where topsoil is present, but is wholly dominated by invasive non-native species such as Russian thistle, Sahara mustard, or other noxious plant species it will not be used in revegetation because the non-native seed bank would outweigh any benefit for revegetation the soil may have. Areas characterized as annual grassland or dominated by annual grasses will require topsoil salvage.</p> <p>b. Figures depicting areas proposed for temporary disturbance – The HRRP shall include detailed figures indicating the locations of areas proposed for temporary disturbance such as the area near the proposed pole replacement, underground trenching areas, and any lands adjacent to the substation site. These figures shall be updated, as necessary, to reflect current site conditions should they change.</p> <p>c. Proposed species for restoration/revegetation – The species palette proposed for restoration/revegetation shall include a combination of native (based on current species composition in the restoration/revegetation areas) grasses, annual herbaceous species known to occur in the area, and native shrubs. The seed palette will be provided to the CPUC for approval prior to the implementation of the restoration.</p> <p>d. Seed source and collection guidelines – If possible, seeds from stock within the Region, or from within a 25 mile radius will be collected to maintain local genetic integrity. If seed collection from these areas is not possible then a seed source must be obtained from a local seed supplier familiar with native species. Seed will be limited to the species and quantity specified in the seed mix palette prepared for the project. All seed will originate from the project region, within +/- 1,000 feet elevation of the Project site. The seed supplier chosen will provide a list of three references with the bid proposal. The references will include year, contact names, and telephone numbers. Seeds will be tested for percent purity, percent germination, number of pure live seeds per pound, and weed seed content. Seed testing will be the responsibility of the seed supplier.</p> <p>e. Planting methodology – A description of the preferred methods proposed for seeding shall be provided (e.g., hydroseeding, drill seeding, broadcast seeding, etc.). Additionally, a discussion on timing of seeding, type of irrigation system proposed if any, potential need of irrigation, type and duration of irrigation, and erosion controls proposed for revegetation activities shall be included.</p> <p>f. Invasive, non-native vegetation Control – A comprehensive Weed Control Plan will be developed in the HRRP. The Weed Control Plan will serve to prevent the type conversion of natural habitats to those dominated by invasive species known to occur in the area such as Russian thistle and Sahara mustard.</p> <p>g. Monitoring program – Areas subject to restoration/revegetation shall be monitored to assess conditions and to make recommendations for successful habitat establishment. Monitoring will be performed by a CPUC qualified biologist(s), knowledgeable in the area of desert habitat restoration.</p>		

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	<p>i. Qualitative Monitoring – Qualitative monitoring surveys will be performed monthly in all restored/revegetated areas for the first year following planting in any phase of the Project. Qualitative monitoring will be on a quarterly schedule thereafter, until final completion approval of each restoration/revegetation area. Qualitative surveys will assess native plant species performance, including growth and survival, germination success, reproduction, plant fitness and health as well as pest or invasive plant problems. A CPUC qualified wildlife biologist will assist in monitoring surveys and will actively search for mammal, tortoise, and other wildlife use. Monitoring at this stage will indicate need for remediation or maintenance work well in advance of final success/failure determination. The monitoring reports will describe site progress and conditions and list all observations pertinent to eventual success, and make recommendations as appropriate regarding remedial work, maintenance, etc.</p> <p>ii. Quantitative Monitoring – Quantitative monitoring will occur annually for years one to five or until the success criteria are met.</p> <p>Within each revegetation area, as shown in the figures referenced above, the biologist will collect data in a series of 1 m² quadrants to estimate cover and density of each plant species within the revegetated areas. Data will be used to measure native species growth performance, to estimate native and non-native species coverage, seed mix germination, native species recruitment and reproduction, and species diversity. Based on these results, the biologist will make recommendations for maintenance or remedial work on the site and for adjustments to the approved seed mix.</p> <p>h. Success criteria – Criteria for successful restoration/revegetation of temporarily disturbed areas shall be 75 percent of pre-disturbance vegetative cover. This percentage shall include no more than a 10 percent non-native component, except where disturbance occurs in areas dominated by exotics, where the tolerance for exotics will be the same composition and percentage of pre-disturbance conditions with the exception of invasives such as Sahara mustard or Russian thistle.</p> <p>i. Reporting – Reporting will include progress reports summarizing site status and recommended remedial measures that will be submitted by the biologist to the CPUC quarterly, with the exception of the site visits immediately preceding the development of each annual status report (see below). Each progress report will list estimated species coverage and diversity, species health and overall vigor, the establishment of volunteer native species, topographical/soils conditions, problem weed species, the use of the site by wildlife species, significant drought stress, and any recommended remedial measures deemed necessary to ensure compliance with specified performance criteria.</p> <p>One annual site status report that summarizes site conditions will be forwarded by the biologist to the CPUC at the end of each year following implementation of this plan. Each annual report will list species coverage and diversity measured during yearly quantitative surveys, compliance/noncompliance with required performance standards, species health and overall vigor, the establishment of volunteer native species, hydrological and topographical conditions, use of the site by wildlife species, and the presence of invasive weed species. In the event of substantial</p>		

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	<p>non-compliance with the required performance criteria, the reports will include remedial measures deemed necessary to ensure future compliance with specified performance criteria. Each annual report will include, at the minimum:</p> <ol style="list-style-type: none"> 1) The name, title, and company of all persons involved in restoration monitoring and report preparation 2) Maps or aerials showing restoration areas, transect locations, and photo documentation locations 3) An explanation of the methods used to perform the work, including the number of acres treated for removal of non-native plants 4) An assessment of the treatment success. 		
Invasive, Non-Native, and Noxious Weeds	<p>B-6 Prepare and implement a Weed Control Plan. The intent of this mitigation measure is to require SCE to develop a Weed Control Plan to respond to the colonization of noxious or invasive weeds that occur as a result on the Project. SCE shall prepare and implement a comprehensive, adaptive Weed Control Plan. The Weed Control Plan shall be submitted to the CPUC for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan. On public lands, SCE shall submit the Weed Control Plan to the BLM for approval. The Weed Control Plan shall include the following:</p> <ol style="list-style-type: none"> a. A pre-construction weed inventory shall be conducted by surveying all areas subject to ground-disturbing activity, including, but not limited to the Downs Substation expansion site, access roads along the 115-kV subtransmission line routes, and in any area where vehicles will be parked or equipment used. Populations of noxious weeds shall be flagged for avoidance along all access roads where ground disturbance is not expected to occur. SCE shall not be responsible for removing or treating existing populations of noxious or invasive weeds in any areas that are not subject to ground disturbance. Weed populations that: (1) are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006), (2) aid and promote the spread of wildfires (such as cheatgrass and Saharan mustard), and (3) are considered by the BLM as species of priority (for BLM lands only) shall be mapped and described according to density and area covered. In areas subject to ground disturbance, weed infestations shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with the BLM (for BLM lands only). The Weed Control Plan shall be updated and utilized for eradication and monitoring post construction. b. Weed control treatments shall include all legally permitted herbicide, manual, and mechanical methods. The application of herbicides shall be in compliance with all State and federal laws and regulations under the prescription of a Pest Control Advisor (PCA), where concurrence has been provided by the CPUC/BLM, and implemented by a Licensed Qualified Applicator. Herbicides shall not be applied in areas containing occupied Threatened, Endangered, Proposed, Candidate, and BLM Sensitive species without further 	Review and approve Weed Control Plan; Review daily log on a monthly basis (for BLM lands), or upon request of the CPUC	Prior to construction and during construction

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	<p>analysis. Herbicides shall not be applied during or within 72 hours of a scheduled rain event. The timing of the weed control treatment shall be determined for each plant species in consultation with the CPUC, the CPUC-approved SCE Restoration Biologist, the BLM (on public lands), the county Agriculture Commissioners, and the California Invasive Plant Council (Cal-IPC) with the goal of controlling populations before they start producing seeds.</p> <p>For the preconstruction and construction of the Project, measures to control the introduction and spread of noxious weeds in the Project work areas shall be taken as follows.</p> <p>c. During Project preconstruction and construction, all seeds and straw materials shall be weed-free rice straw, and all gravel and fill material shall be certified weed free by the county Agriculture Commissioners' Offices. Any deviation from this will be approved by the CPUC/BLM. All plant materials used during restoration shall be native, certified weed-free, and approved by the CPUC and BLM.</p> <p>d. During Project preconstruction and construction, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering the work area. Vehicles staged in the work areas would only require re-treatment if they are exposed to high priority noxious weed populations or have left the work area. Vehicles shall be cleaned at existing construction yards or legally operating car washes. SCE shall document that all vehicles have been washed prior to commencing project work. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed before and after entering all Project work areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill, unless otherwise approved by the CPUC/BLM. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to the CPUC and BLM for inspection at any time and shall be submitted to the CPUC and BLM (on public lands only) on a monthly basis.</p>		
Desert Tortoise	<p>B-7 Conduct presence or absence surveys for desert tortoise and implement avoidance measures. SCE shall limit all activities within occupied or potentially occupied habitat for desert tortoise to existing access roads or cleared areas. Prior to ground disturbance at the Downs Substation expansion site, SCE shall implement the following actions.</p> <p>a. The entire plant site shall be fenced with permanent desert tortoise-exclusion fence. To avoid impacts to desert tortoise during fence construction, the proposed fence alignment shall be flagged and the alignment surveyed within 24 hours prior to fence construction.</p> <p>b. A USFWS, CDFG, and CPUC-approved qualified biologist shall conduct focused clearance surveys for desert tortoise prior to construction activities where any ground disturbance would occur within the substation expansion area. These surveys shall provide 100 percent coverage of all areas to be disturbed during fence construction and an additional transect along both sides of the proposed fence line. Clearance surveys shall follow the USFWS's desert tortoise</p>	Monitor to ensure installation and maintenance of desert tortoise-exclusion fence at Downs Substation expansion site; Review focused clearance surveys; Full-time monitoring during initial ground disturbance at Downs Substation expansion site and full-time monitoring for subtransmission line, pole replacement areas, and	Prior to construction and during construction

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	<p>survey protocol, as modified within the BLM's West Mojave Plan (WEMO) (BLM, 2005). This fence line transect shall cover an area approximately 90 feet wide centered on the fence alignment. Transects shall be no greater than 30 feet apart. The biologist shall then complete two clearance surveys to ensure tortoise are not present in the construction footprint.</p> <p>c. A minimum of two clearance surveys, with negative results, must be completed, and these must coincide with heightened desert tortoise activity from late March through May and during October. To facilitate seeing the ground from different angles, the second clearance survey shall be walked at 90 degrees to the orientation of the first clearance survey.</p> <p>d. If tortoises or intact active burrows are found in the impact area or if the authorized biologist determines that a tortoise may enter the construction site, SCE shall halt work within 500 feet of the tortoise or burrow. No tortoise shall be handled or allowed to be disturbed by Project activities. If tortoises are detected at the substation expansion site, consultation with the USFWS and CDFG may be required and compensatory mitigation at no less than 1:1 will be required for the loss of native habitats.</p> <p>e. A full time qualified biological monitor shall be present during initial ground disturbance at the substation expansion site to ensure desert tortoises are not encountered during excavation activities.</p> <p>For the subtransmission line, pole replacement areas, and underground electrical installation SCE shall implement the following measures.</p> <p>f. A USFWS, CDFG, and CPUC-approved qualified biologist shall conduct focused clearance surveys for desert tortoise prior to ground disturbance or any Project activity would occur within the subtransmission line right of way (i.e., fiber optic installation), pole replacement locations, and underground trenching.</p> <p>g. A full time qualified biological monitor shall be required for each crew if multiple crews are working more than one mile apart.</p> <p>h. If the biological monitor observes a desert tortoise on or within 500 feet of areas subject to trenching or at the pole replacement sites, work at the location where the animal was detected shall cease until approved by the CPUC, USFWS, BLM (BLM lands only) and CDFG in writing.</p> <p>i. If the biological monitor observes a desert tortoise in any other area, determines that a desert tortoise was killed by Project-related activities during construction, or observes a dead desert tortoise, a written report shall be sent to CDFG, USFWS, and BLM (BLM lands only) within five calendar days. SCE shall notify the CPUC within 24 hours. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). Desert tortoise remains shall be collected and frozen as soon as possible, and CDFG/USFWS shall be contacted regarding ultimate disposal of the remains.</p> <p>In addition the following protective measures shall be implemented by SCE.</p> <p>j. Prior to the onset of construction activities, SCE shall provide all personnel who will be present</p>	<p>under-ground installations; Review report(s) of desert tortoise activity</p>	

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	<p>on work areas within or adjacent to the Project area the following information:</p> <ul style="list-style-type: none"> i. A detailed description of the desert tortoise including color photographs; ii. The protection the desert tortoise receives under the Endangered Species Act and possible legal action that may be incurred for violation of the Act; iii. The protective measures being implemented to conserve the desert tortoise and other species during construction activities associated with the Project; and iv. A point of contact if desert tortoises are observed. <ul style="list-style-type: none"> k. All trash that may attract predators of desert tortoises will be removed from work sites or completely secured at the end of each work day. l. The biologist will have the authority to stop all activities until appropriate corrective measures have been completed. m. SCE shall restrict work to daylight hours during activities associated with the installation of new fiber optic telecommunication cable, except during an emergency, in order to avoid nighttime activities when desert tortoise may be present on the access road. Traffic speed shall be maintained at 15 mph or less in all work areas. <p>The resumes of the proposed biologists will be provided to the CDFG and CPUC for concurrence prior to conducting the surveys. The name and phone number of the biological monitor shall be provided to a CDFG/USFWS/BLM regional representative at least 14 days before the initiation of ground-disturbing activities.</p>		
Desert Tortoise and Mohave Ground Squirrel	<p>B-8 Provide off-site compensation for impacts to desert tortoise and Mohave ground squirrel habitat. To mitigate potential long-term impacts to desert tortoise and Mohave ground squirrel (MGS) habitat from Project activities, SCE will acquire and protect, in perpetuity, habitat occupied by desert tortoise and MGS. The acquisition of mitigation lands shall be required for any disturbance occurring in areas supporting desert scrub or other native habitats that can support desert tortoise or MGS. For the purposes of this mitigation measure, temporary impacts to native vegetation shall be treated as permanent due to the challenges of restoring natural lands in arid environments. SCE shall acquire lands at a ratio of 1:1 (acres of habitat acquired : acres of land disturbed) for natural lands subject to vehicle crushing or vegetation mowing only, and at a ratio of 3:1 for clearing and grubbing between the Inyokern Substation and the Searles Substation. Compensatory mitigation is not required for disturbed lands immediately adjacent to Highway 178 or developed areas. Temporary impacts in these areas shall be restored in accordance with Mitigation Measure B-5. The mitigation areas must provide occupied habitat that is of equal or greater habitat quality compared to the impacted habitat, and must be located within the Western Mojave Recovery Unit for the desert tortoise, as defined in the U.S. Fish and Wildlife Service’s Revised Recovery Plan for the Mojave Population of the Desert Tortoise (2011), and within the Mohave Ground Squirrel Conservation Area on private inholdings, as defined in the Bureau of Land Management West Mojave Plan – A Habitat</p>	<p>SCE shall submit final engineering plans to the CPUC identifying the sizes and locations of all areas of native vegetation that would be subject to vehicle crushing or vegetation mowing only, and the sizes and locations of all areas of native vegetation that would be subject to clearing and grubbing (between the Inyokern and the Searles Substations only), for final determination of the acreage of compensation lands required. CPUC shall review and approve the</p>	<p>Prior to construction, during construction, and during operation</p>

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	<p>Conservation Plan and California Desert Plan Amendment (2005), or other area approved by the CDFG, USFWS (for desert tortoise) and the CPUC. An open space easement shall be recorded on all property associated with the mitigation lands to protect existing resources in perpetuity. An open space easement could be held by CDFG or an approved land management entity and shall be recorded immediately upon the dedication or acquisition of the land.</p> <p>Habitat shall be preserved through the use of permanent open space easements. Mitigation lands cannot be located on land that is currently publicly held for resource protection, or were previously acquired for use as mitigation lands for another project. Mitigation lands must:</p> <ol style="list-style-type: none"> a. Provide habitat for desert tortoise and MGS with capacity to regenerate naturally when disturbances are removed; b. Be located near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation; c. Have the potential to contribute to habitat connectivity and build linkages between known populations of desert tortoise, MGS, and/or other preserve lands; d. Not have a history of intensive recreational use or other disturbance that might cause future erosion or other habitat damage, and make habitat recovery and restoration infeasible; e. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; f. Not contain hazardous wastes that cannot be removed to the extent that the site could not provide suitable habitat; g. Must provide wildlife movement value equal to that on the project site; and h. Shall be contiguous and biologically connected to lands currently occupied by desert tortoise and MGS. <p>SCE shall either provide open space easements or provide funds for the acquisition of easements to a “qualified easement holder” (defined below). The CDFG is a qualified easement holder. To qualify as a “qualified easement holder” a private land trust must have:</p> <ol style="list-style-type: none"> a. Substantial experience managing open space easements that are created to meet mitigation requirements for impacts to special-status species; b. Adopted the Land Trust Alliance’s Standards and Practices; and c. A stewardship endowment fund to pay for its perpetual stewardship obligations. <p>The CPUC shall determine whether a proposed easement holder meets these requirements.</p> <p>SCE shall also be responsible for donating to the easement holder fees sufficient to cover: (1) Administrative costs incurred in the creation of the easement (appraisal, documenting</p>	<p>proposed location(s) of compensation lands, as well as, review and approve documentation of recorded easement(s) prior to the issuance of the Notice to Proceed. CPUC shall review and approve verification of having met habitat mitigation requirements prior to final inspection.</p>	

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	<p>baseline conditions, etc.) and (2) Funds in the form of a non-wasting endowment to cover the cost of monitoring and enforcing the terms of the easement in perpetuity. The amount of these administrative and stewardship fees shall be determined by the easement holder in consultation with the CPUC.</p> <p>Open space easement(s) shall also be subject to the following:</p> <ol style="list-style-type: none"> a. The locations of acceptable easement(s) shall be developed with approval of CDFG and CPUC. b. Be held in perpetuity by a qualified easement holder (defined above). c. Be subject to a legally binding agreement that shall: (1) Be recorded with the County Recorder(s); and (2) Contain a succession clause for a qualified easement holder if the original holder is dissolved. <p>Documentation of recorded easement(s) shall be submitted to the CPUC, for review and approval, prior to the issuance of the Notice to Proceed. Verification of having met habitat mitigation requirements shall be reviewed and approved prior to final inspection.</p>		
Mohave Ground Squirrel	<p>B-9 Avoid habitat and conduct construction monitoring for Mohave ground squirrel. SCE shall limit all activities within occupied or potentially occupied habitat to existing access roads or cleared areas. Prior to ground disturbance at the Downs Substation expansion site, SCE shall implement the following actions.</p> <ol style="list-style-type: none"> a. SCE shall not disturb lands potentially occupied by the Mohave ground squirrel (MGS) unless the site has been cleared by trapping or approved by the CDFG and CPUC in writing. b. A qualified biological monitor shall be on the site to survey for MGS during initial ground-disturbing activities at the substation expansion site and full time during all activities in any areas that support habitat for this species. c. If the biological monitor observes a MGS on or within 500 feet of the substation site, work at the location where the animal was detected shall cease until approved by the CPUC and CDFG in writing. d. If the biological monitor observes a MGS in any other area, determines that a MGS was killed by Project-related activities during construction, or observes a dead MGS, a written report shall be sent to CDFG within five calendar days. SCE shall notify the CPUC within 24 hours. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). MGS remains shall be collected and frozen as soon as possible, and CDFG shall be contacted regarding ultimate disposal of the remains. e. If MGS are detected at the substation site consultation with the CDFG may be required and compensatory mitigation at no less than 1:1 will be required for the loss of native habitats. <p>For the subtransmission line, pole replacement areas, and underground electrical installation SCE shall implement the following measures.</p>	<p>Review biologist resumes; Monitor at Downs Substation expansion site; Full-time monitoring of sub-transmission line, pole replacement areas, and underground installations</p>	<p>Prior to construction and during construction</p>

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Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<p>f. a. SCE shall limit all activities within occupied or potentially occupied habitat to existing access roads or cleared areas. If this is not possible, SCE shall avoid all potential MGS burrows by a minimum of 50 feet. This buffer may be adjusted with the approval of the CPUC and CDFG.</p> <p>g. A CDFG, and CPUC-approved qualified biologist shall conduct focused clearance surveys for MGS prior to ground disturbance or any Project activity would occur within the subtransmission line right of way (i.e., fiber optic installation), pole replacement locations, and underground trenching.</p> <p>h. A full time qualified biological monitor shall be required for each crew if multiple crews are working more than one mile apart.</p> <p>i. If the biological monitor observes a MGS on or within 500 feet of areas subject to trenching or at the pole replacement sites, work at the location where the animal was detected shall cease until approved by the CPUC, USFWS, BLM (BLM lands only) and CDFG in writing.</p> <p>j. If the biological monitor observes MGS in any other area, determines that a MGS was killed by Project-related activities during construction, or observes a dead MGS, a written report shall be sent to CDFG, and BLM (BLM lands only) within five calendar days. SCE shall notify the CPUC within 24 hours. The report will include the date, time of the finding or incident (if known), and location of the carcass and circumstances of its death (if known). MGS remains shall be collected and frozen as soon as possible, and CDFG shall be contacted regarding ultimate disposal of the remains.</p> <p>In addition the following protective measures shall be implemented by SCE.</p> <p>k. Prior to the onset of construction activities, SCE shall provide all personnel who will be present on work areas within or adjacent to the Project area the following information:</p> <ul style="list-style-type: none"> i. A detailed description of the MGS including color photographs; ii. The protection the MGS receives under the California Endangered Species Act and possible legal action that may be incurred for violation of the Act; iii. The protective measures being implemented to conserve the MGS and other species during construction activities associated with the Project; and iv. A point of contact if MGS are observed. <p>l. All trash that may attract predators of MGS will be removed from work sites or completely secured at the end of each work day.</p> <p>m. The biologist will have the authority to stop all activities until appropriate corrective measures have been completed.</p> <p>n. SCE shall restrict work to daylight hours during activities associated with the installation of new fiber optic cable, except during an emergency, in order to avoid nighttime activities when MGS may be present on the access road. Traffic speed shall be maintained at 15 mph or less in all work areas.</p>		

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<p>The resumes of the proposed biologists will be provided to the CDFG and CPUC for concurrence prior to conducting the surveys. The name and phone number of the biological monitor shall be provided to a CDFG/USFWS/BLM regional representative at least 14 days before the initiation of ground-disturbing activities.</p>		
Nesting and Breeding Birds	<p>B-10 Conduct pre-construction surveys for nesting and breeding birds and implement avoidance measures. Prior to any on-site disturbance (i.e., mobilization, staging, grading or construction), SCE shall retain a CPUC qualified biologist to conduct pre-construction surveys for nesting birds. Surveys for nesting birds shall be conducted within the recognized breeding season in all areas within 500 feet of the substation, staging areas, subtransmission lines, pole replacement areas, underground trenching sites, and access road locations. Surveys for raptors shall be conducted for all areas from February 1 to August 15. The required survey dates may be modified based on local conditions, as determined with the approval of the CPUC, USFWS, and CDFG.</p> <p>If breeding birds with active nests are found prior to or during construction, a biological monitor shall establish a 300 foot buffer (500 feet for raptors) around the nest for ground-based construction activities and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. If nesting golden eagles are identified, a 0.5 mile no activity buffer will be implemented. The prescribed buffers may be adjusted to reflect existing conditions including ambient noise, topography, construction activity, and disturbance with the approval of the CPUC, CDFG and USFWS as appropriate. SCE may also elect to develop a programmatic approach to nesting bird buffers. If elected, SCE shall prepare a Nesting Bird Management Plan for submittal to the CDFG and USFWS for review and the CPUC for approval. The plan shall include at a minimum: the types of birds that may occur in the Project area; the proposed management strategy for nesting birds; the proposed buffer distances for nesting birds; monitoring, field survey requirements and reporting standards; and nest deterrence strategies. SCE shall also implement the following actions.</p> <ol style="list-style-type: none"> a. The biological monitor(s) shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. The biological monitor(s) shall be responsible for documenting the results of the surveys and ongoing monitoring and will provide a copy of the monitoring reports for impact areas to the respective agencies. b. If for any reason a bird nest must be removed during the nesting season, SCE shall provide written documentation providing concurrence from the USFWS and CDFG authorizing the nest relocation. Additionally the Applicant shall provide a written report documenting the relocation efforts. The report shall include what actions were taken to avoid moving the nest, the location of the nest, what species is being relocated, the number and condition of the eggs taken from the nest, the location of where the eggs are incubated, the survival rate, the location of the nests where the chicks are relocated, and whether the birds were accepted by the adopted parent. 	Review pre-construction survey results; Monitor and establish buffers, as required; Review documentation for any bird nest removals	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<ul style="list-style-type: none"> c. If birds are found to be nesting in construction equipment, that equipment shall not be used, unless permission is obtained from the CDFG, USFWS, and CPUC, until the young have fledged the nest or, if no young are present, until after the breeding season has passed. d. If any vegetation, trees or existing poles are to be removed as part of project related construction activities they will be done so outside of the nesting season to avoid additional impacts to nesting raptors. If removal during the nesting season can't be avoided then the biological monitor must confirm that the features do not contain nests or that the nest is vacant prior to its removal. If nests are found within these structures and contain eggs or young the biological monitor shall allow no activities within a 300 foot buffer for nesting birds and/or a 500 foot buffer for raptors (excluding golden eagle and condors, see above) until the young have fledged the nest. 		
Burrowing Owl	<p>B-11 Conduct focused pre-construction burrowing owl surveys and implement avoidance measures. Concurrent with desert tortoise clearance surveys, SCE shall conduct pre-construction surveys for burrowing owls within the Downs Substation expansion site and along all linear facilities in accordance with CDFG guidelines (CBOC, 1993). No more than 15 days prior to the commencement of initial ground disturbing activities in any location that supports potential habitat, SCE shall implement focused pre-construction reconnaissance level surveys for burrowing owls. Surveys shall be conducted prior to the initiation of ground disturbance, the stringing of fiber optic line, or pole replacement. Surveys shall be conducted by a CPUC approved-qualified biologist(s), knowledgeable with the species. In conformance with federal and State regulations regarding the protection of raptors, surveys for burrowing owls shall be conducted in conformance with the California Burrowing Owl Consortium's 1995 protocols, which are recommended by the CDFG and consist of a minimum of three site visits. Surveys shall be completed within all areas proposed for ground disturbance and shall include the following avoidance measures:</p> <ul style="list-style-type: none"> a. Occupied burrows shall not be disturbed during the nesting season (1 February through 31 August) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either the birds have not begun egg-laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Owls present on site after 1 February will be assumed to be nesting unless evidence indicates otherwise. This protected buffer area will remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently or the nest is no longer active b. Unless otherwise authorized by CDFG and the CPUC, a 250-foot buffer, within which no activity will be permissible, will be maintained between Project activities and nesting burrowing owls during the nesting season. This protected area will remain in effect until 31 August or based upon monitoring evidence, until the young owls are foraging independently. For burrowing owls present during the non-breeding season (generally 1 September to 31 January), a 150-foot buffer zone will be maintained around the occupied 	Review pre-construction survey results; Monitor to ensure implementation of avoidance measures	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<p>burrow(s).</p> <p>c. If there is any danger that owls will be injured or killed as a result of construction activity, during the non-breeding season, the birds may be passively relocated. Relocation of owls during the non-breeding season will be performed by a qualified biologist using one-way doors, which should be installed in all burrows within the impact area and left in place for at least two nights. These one-way doors will then be removed and the burrows backfilled immediately prior to the initiation of grading. To avoid the potential for owls evicted from a burrow to occupy other burrows within the impact area, one-way doors will be placed in all potentially suitable burrows within the impact area when eviction occurs. However, these doors may only be placed with the written permission of the CPUC, CDFG and USFWS to ensure that owls are not trapped or buried in the burrow.</p> <p>d. Any damaged or collapsed burrows will be replaced with artificial burrows in adjacent habitat at a 2:1 ratio. Design of the artificial burrows shall be consistent with CDFG guidelines (CDFG, 1995). SCE shall survey the site selected for artificial burrow construction to verify that such construction will not affect desert tortoise or Mohave ground squirrel. The design of the burrows shall be approved by the CPUC, CDFG and USFWS. If artificial burrows are required, the project owner shall obtain by purchase the land required to support the burrows or ensure the burrows are located in an area such as the sub transmission line easement where construction/development would not occur.</p>		
	<p>B-12 Compensation for impacts to burrowing owl. Compensatory mitigation for permanent impacts to burrowing owls or their habitat will be provided in the form of habitat preservation and management. The following measures for compensatory mitigation shall apply only if burrowing owls are detected within the Project Disturbance Area (i.e., areas subject to permanent disturbance). The Project owner shall acquire, in fee or in easement, 19.5 acres of land for each burrowing owl that is displaced by construction of the Project. This compensation acreage of 19.5 acres per single bird or pair of nesting owls assumes that there is no evidence that the compensation lands are occupied by burrowing owls. If burrowing owls are observed to occupy the compensation lands, then only 9.75 acres per single bird or pair is required, per CDFG (1995) guidelines. If the compensation lands are contiguous to currently occupied habitat, then the replacement ratio will be 13.0 acres per pair or single bird. The Project owner shall provide funding for the enhancement and long-term management of these compensation lands. The acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the CPUC, in consultation with CDFG and USFWS prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. The criteria for the mitigation lands are described below. The mitigation land must provide suitable habitat for burrowing owls, and the acquisition lands must either currently support burrowing owls or be within dispersal distance from an active</p>	<p>If burrowing owls are detected in the Project Disturbance Area, review mitigation lands proposal to ensure adequacy of lands and that mitigation ratio is appropriately met</p>	<p>Prior to construction, during construction, and operation</p>

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	burrowing owl nesting territory (generally approximately 5 miles).		
American Badger and Desert Kit Fox	<p>B-13 Conduct focused pre-construction surveys for American badger and desert kit fox and implement avoidance measures. No more than 30 days prior to the commencement of construction activities, the SCE shall retain a CPUC biologist to conduct pre-construction surveys for American badger and desert kit fox within suitable habitat in the Project area. Biological Monitors shall perform pre-construction surveys for badger and kit fox dens in the Project area, including areas within 200 feet of all Project facilities, utility corridors, and access roads. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.</p> <p>No disturbance to any dens shall be allowed in areas that may support desert tortoise or Mohave ground squirrel as tortoise are known to use a variety of mammal dens for shelter. An inactive den may be excavated by hand and backfilled to prevent reuse by badgers or kit fox will only be allowed at the Substation site after the site has been cleared of desert tortoise.</p> <p>Inactive dens that would be directly impacted by construction activities shall be monitored for future use. Potentially active dens that would be directly impacted by construction activities in any area that supports habitat for the desert tortoise or Mohave ground squirrel shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium, such as diatomaceous earth or fire clay, and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, work may occur adjacent to the den.</p> <p>If present, occupied dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den. Maternity dens for badgers and kit foxes shall be avoided during the pup-rearing season (15 February through 1 July) and a minimum 200-foot buffer established. Buffers may be modified with the concurrence of CDFG and CPUC. Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction.</p> <p>If avoidance of a non-maternity den is not feasible, SCE shall be required to coordinate with the USFWS and CDFG to gain written approval for potential take of desert tortoise.</p>	Review pre-construction survey results; Monitor to ensure implementation of avoidance measures	Prior to construction and during construction
Nelson's Big Horn Sheep	<p>B-14 Conduct focused pre-construction surveys for Nelson's bighorn sheep and implement avoidance measures. All construction activities within 500 feet of Nelson's bighorn sheep shall cease until the animals have moved farther than 500 feet away from construction activities. This buffer may be modified with the approval of the CPUC, BLM (on BLM lands), and CDFG.</p> <p>SCE shall notify the CPUC, BLM, and CDFG in writing within 48 hours if any bighorn sheep are noted in the Project area.</p>	Review pre-construction survey results; Monitor to ensure implementation of avoidance measures	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Cultural Resources			
APM CR-1	An archaeologist would monitor the grubbing, pad preparation, and construction earthwork in the event that a significant buried deposit is inadvertently encountered during construction activity at the location of the Downs Substation expansion. In such case, SCE would develop an archaeological monitoring plan describing archaeological monitoring activities and treatment of any unanticipated discoveries, as warranted.	On-site archaeologist monitors during construction at Downs Substation expansion area	During construction
Previously- Unidentified Archaeological Resources	C-1 Archaeological construction monitoring. Archaeological monitoring shall be conducted by a qualified archaeologist during any ground disturbing activities related to the expansion of the Downs Substation to address any unanticipated subsurface deposits that may be associated with the site. Unless features or artifacts substantially different than those already documented within the CA-KER-6328H are found, no further management of this resource is required.	Monitoring by a qualified archaeologist during ground disturbing activities at the Downs Substation expansion area.	During construction
Cultural Resources	C-2 Treatment of previously unidentified cultural resources. If previously unidentified cultural resources are unearthed during construction activities, construction work in the immediate area of the find shall be halted and directed away from the discovery until a qualified archaeologist assesses the significance of the resource. If the discovery is located on BLM land, the Ridgecrest field office shall be contacted to evaluate the resource and make necessary plans for treatment. If the resource is located on private land, SCE, in consultation with the CPUC, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be historically significant according to CEQA (CEQA Guidelines Section 15064.5 (a)).	Construction personnel sign an environmental training attendance sheet to ensure ability to identify potential cultural resources. On-site monitoring during construction.	During construction
Paleontological Resources	C-3 Protect paleontologic resources. Prior to construction, a Paleontologic Resource Specialist consisting of a certified paleontologist shall be retained by the Applicant to supervise monitoring of construction excavations and to produce a Paleontological Resource Management Plan (PRMP) for those portions of the Project in the Searles Valley area where ground disturbing activities will occur. The Paleontologic Resource Specialist would obtain a qualified paleontological construction monitor to monitor ground disturbance activities for the portions of the Project located in the Searles Valley area. Paleontological monitoring would include inspection of exposed rock units and microscopic examination of matrix to determine if fossils are present. The monitor would have authority to temporarily divert grading away from exposed fossils in order to recover the fossil specimens. The PRMP shall address and implement the following measures: <ul style="list-style-type: none">• Environmental Training. Training shall be provided to construction supervisors and crew with environmental awareness training regarding the protection of paleontological resources and procedures to be implemented in the event fossil remains are encountered by ground-disturbing activities.	Monitoring by Paleontologic Resource Specialist during construction excavations in the Searles Valley where ground disturbing activities will occur.	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
	<ul style="list-style-type: none"> • Construction Monitoring. Ground-disturbing activities, including all construction-related grading, excavation, and trenching in areas where potential fossil-bearing materials may be encountered, shall be monitored on a full-time basis by the paleontological construction monitor only in those parts of the Project area where these activities will disturb previously undisturbed strata in rock units of paleontologic sensitivity. Areas of grading and excavation in Recent alluvium in the Searles Valley shall be checked on a full-time basis to verify if older high sensitivity lake sediments are penetrated. • Recovery and Testing. If fossils are encountered during construction, construction activities shall be temporarily diverted from the discovery and the paleontological construction monitor would notify all concerned parties and collect matrix for testing and processing as directed by the Project Paleontologic Resource Specialist. Construction would resume at the discovery location once all the necessary matrix was stockpiled, as determined by the paleontological construction monitor. • Prepare Monthly Progress Reports. The Project Paleontologic Resource Specialist shall document interim results of the construction monitoring program with monthly progress reports. In addition, at each fossil locality field data forms shall be completed recording the locality, stratigraphic columns shall be measured, and appropriate scientific samples submitted for analysis. • Analysis and Prepare Final Paleontological Resource Recovery Report. The Project Paleontologic Resource Specialist shall direct identification, laboratory processing, cataloguing, analysis, and documentation of the fossil collections. When appropriate, and in consultation with the Applicant, splits of rock or sediment samples shall be submitted to commercial laboratories for microfossil, pollen, or radiometric dating analysis. After analysis, the collections would be prepared for curation (see below). A final technical report would be prepared to summarize construction monitoring and present the results of the fossil recovery program. The report would be prepared in accordance with Applicant, Society of Vertebrate Paleontology guidelines, and CPUC requirements. The final report would be submitted to the Applicant, the CPUC, and the curation repository (see below). • Curation. Prior to construction, the Applicant shall enter into a formal agreement with a recognized museum repository. The Applicant would submit for curation to the approved repository any fossil collections obtained due to Project construction, all appropriate field and laboratory documentation, and the final Paleontological Resource Recovery Report in a timely manner following construction. 		

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Human Remains	<p>C-4 Treatment of human remains. If human remains are unearthed during construction activities, construction work in the immediate area of the discovery shall be halted and directed away from the discovery until the county coroner can determine whether the remains are those of a Native American. If they are those of a Native American, the following would apply:</p> <ol style="list-style-type: none"> a. The coroner shall contact the Native American Heritage Commission. b. If discovered human remains are determined to be Native American remains, and are released by the coroner, these remains shall be left in situ and covered by fabric or other temporary barriers. c. The human remains shall be protected until SCE, the landowner, and the Native American Heritage Commission come to a decision on the final disposition of the remains. <p>According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).</p>	Any discovered human remains are treated according to agency-approved mitigation and in compliance with State and federal regulations.	During construction
Geology and Soils			
Seismic-related Ground Failure and Liquefaction	<p>G-1 Conduct geotechnical investigations for liquefaction. Because seismically-induced liquefaction related ground failure has the potential to damage or destroy Project components, the design-level geotechnical investigations to be performed by the SCE shall include investigations designed to assess the potential for liquefaction to affect the new Project structures within Searles Valley in areas with potential liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the Project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformations without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the CPUC and BLM, as appropriate, for review and approval at least 60 days before final Project design.</p>	Review design-level geotechnical investigation study results and monitor implementation with on-site inspection.	Prior to construction and during construction
	<p>G-2 Conduct geotechnical studies for expansive soils. Because expansive soils have the potential to cause damage or destroy new Project components at and near the Searles Substation, the design-level geotechnical studies to be performed by SCE shall identify the presence, if any, of areas with potentially expansive soils and include appropriate design features, including excavation of potentially expansive soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive soils. Studies shall conform to industry standards of care and American Society for Testing and Materials (ASTM) standards for field and laboratory testing. Study results and proposed solutions shall be provided to the CPUC for review and approval at least 60 days before final project design.</p>	Review design-level geotechnical investigation study results and monitor implementation with on-site inspection.	Prior to construction and during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Hazards and Hazardous Materials			
Wildland Fires	<p>HZ-1 Prepare and implement Fire Management Plan. SCE shall prepare and implement a project specific Fire Management Plan which outlines guidance for prevention, control, and extinguishment of fires during construction and maintenance activities for the Project. The Fire Management Plan shall include provisions applicable to construction crews and activities and maintenance crews and activities. The Fire Management Plan shall include protocols to address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements. Additionally the Plan shall include the following measures:</p> <ul style="list-style-type: none"> • Cease work during Red Flag Warning events. During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRA) and Local Responsibility Areas (LRA), all non-emergency construction and maintenance activities shall cease in affected areas. • Ensure open communication pathways. All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire Project alignment to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the Project area immediately upon ignition. • Remove hazards from work areas. SCE shall clear dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work areas would include only those areas where personnel are active or where equipment is in use or stored, and may include: the Downs Substation expansion area and associated new fiber optic and transmission equipment; the new fiber optic telecommunications route; portions of the 115 kV subtransmission ROW in Searles Valley with new poles; construction laydown areas; pull, tension, and splicing sites; access roads; parking pads; and any other sites adjacent to Project components where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread on site in piles no higher than six (6) inches. 	Review plan and monitor implementation during construction.	Submit Fire Management Plan at least 60 days prior construction. Implement during construction and operations.

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Hydrology and Water Quality			
Water Quality	WR-1 Construction site dewatering management. If groundwater is unexpectedly encountered during construction, dewatering activities shall be performed in compliance with the California Stormwater Quality Association (CASQA) Handbook for Construction or other similar guidelines, as approved by Kern County. The project proponent(s) shall notify Kern County and the Lahontan Regional Water Quality Control Board at the onset of dewatering activities, and submit written description of all executed dewatering activities, including steps taken to return encountered groundwater to the subsurface, upon the completion of dewatering activities at the affected site(s). The Environmental Monitor shall periodically check grading activities for groundwater exposure.	Monitor during construction and ensure proper notification of parties if dewatering occurs.	During construction
Land Use and Planning			
Compliance with Applicable Regulations	L-1 File a Notice to Proceed. SCE must file a Notice to Proceed with the BLM's Ridgecrest office at least 30 days prior to the start of construction. The Notice to Proceed shall also include a clearance document from California Fish and Game for the Mohave Ground Squirrel and an Encroachment permit from Caltrans, as appropriate.	Review Notice to Proceed and documentation from California Fish and Game and Caltrans.	Prior to construction
Noise			
Construction Noise Standards	N-1 Obtain necessary variance for construction noise. SCE shall obtain a temporary variance (when necessary) for construction activities that would exceed allowable hours of construction equivalent to those of the Kern County Municipal Code Section 8.36.020 – Prohibited Sounds and San Bernardino County Code of Ordinances Title 8, Section 83.01.080(g)	Review variances	Prior to and/or during construction

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Construction Noise	<p>N-2 Reduce impacts of construction noise. During construction SCE shall implement the following appropriate noise controls during construction:</p> <ul style="list-style-type: none"> • Limit noise generating activities to the hours of 7:00 a.m. and 7:00 p.m. when occurring within 500 feet of a residence or other noise-sensitive land use. • Use only internal combustion engine-driven equipment equipped with intake and exhaust mufflers in good condition and appropriate for the equipment. • Limit unnecessary idling of construction equipment. • Where feasible, construction traffic shall be routed to avoid noise-sensitive areas, such as residences, schools, religious facilities, hospitals, and parks. • Inform property owners within 300 feet of the project area of anticipated noise disturbances at least two to four weeks prior to construction, including a contact number to register noise complaints. • Provide a project hotline where residents can call with questions or issues. All calls shall be returned by SCE and/or its contractor within 24 hours to answer noise questions and handle complaints. Documentation of the complaint and resolution shall be submitted to the CPUC monthly. 	<p>On-site monitoring, including check of equipment; review traffic routes (see MM T-1); review noticing; and review documentation of complaints and resolution.</p>	<p>During construction</p>

Mitigation Monitoring Plan

Impact	Applicant Proposed Measure (APM) or Mitigation Measure	Monitoring Requirement	Timing of Action
Traffic/Transportation			
Construction Traffic and Emergency Response	<p>T-1 Prepare Construction Traffic Control Plan and Implementation Program. SCE shall consult with Kern County, San Bernardino County, Caltrans, the city of Ridgecrest, as well as Searles Valley Minerals and Union Pacific Railroad companies (for active rail line crossings) and prepare and submit for approval by all permitting jurisdictions a Construction Traffic Control Plan and Implementation Program. The Plan must be prepared in accordance with Caltrans Manual on Uniform Traffic Control Devices, WATCH Manual (the WATCH Manual is the Work Area Traffic Control Handbook published by BNI Publications, Inc.), and California Joint Utility Traffic Control Committee Work Area Protection and Traffic Control Manual; and must include but not be limited to the following:</p> <ul style="list-style-type: none"> • Specification of temporary closure of travel lanes or disruptions to street segments, intersections, bike lanes, pedestrian facilities, public transportation bus stops, or rail line operations during subtransmission and telecommunication line stringing activities, pole replacement, or any other utility tie ins or construction-related activity. • Timing of heavy equipment and building materials deliveries. • Specification of construction-related haul routes, avoiding residential neighborhoods to the maximum extent feasible, and including the estimated number and frequency of trips, and the proposed schedule of hauling. • Redirecting construction traffic with a flag person or temporary restriping, if required. • Signing, lighting, and traffic control device placement, if required. • Ensurance of access for emergency vehicles into the project site and through any construction-related temporary travel lane closures or disruptions. • Ensurance of pedestrian and bicycle safety from construction vehicle travel routes and any construction-related temporary travel lane closures or disruptions. • Procedures for exiting and entering all work sites. • Ensurance of access to residential and/or commercial property located near subtransmission and telecommunication line routes or any other utility tie-ins or construction-related temporary travel lane closures or disruptions. 	Review Traffic Control Plan and Implementation Program; monitor requirements of the plan and program	During construction