9 MITIGATION MONITORING AND REPORTING PLAN

The CPUC is the CEQA Lead Agency. In that role, if the Proposed Project or an alternative is approved, the CPUC would be responsible for ensuring monitoring and reporting on required mitigation.

SDG&E, as the Applicant and project proponent, would be responsible for implementing all applicable measures, including the adopted mitigation measures and conditions of project approval, as well as conditions imposed in any permits or regulations administered by other responsible agencies.

The MMRP for the Proposed Project (or approved alternative) establishes the approach to implementing the mitigation measures and APMs identified in the EIR. If the project is approved and the MMRP described below is adopted by the CPUC, a detailed Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) would be developed, as described in Section 9.2: Organization of the MMCRP. The MMCRP would be the mechanism for CPUC implementation of the MMRP.

The MMRP is presented in Table 9.1-1. Table 9.1.1 is organized first by environmental topic (i.e., Aesthetics, Biological Resources, etc.) and subsequently by APM or mitigation measure. Table 9.1.1 includes:

- APMs and mitigation measures that SDG&E must implement as part of the Proposed Project or any approved Alternative
- Monitoring and reporting requirements
- Effectiveness criteria
- Timing and location of implementation for each measure

The MMCRP would be the basis for the CPUC's environmental monitoring and reporting activities throughout project construction, including during site rehabilitation and restoration after construction is completed. It would detail how and when the mitigation measures would be implemented. The MMCRP would also identify duties and responsibilities of the various parties, communication protocols to follow, and record management requirements. The MMCRP would be prepared and instituted prior to any notices to proceed being issued or the initiation of any construction.

9.1 AUTHORITY FOR THE MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

9.1.1 California Public Utilities Commission

The California Public Utilities Code confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is CPUC practice, pursuant to its statutory responsibility, to protect the environment and to require that mitigation measures stipulated as conditions of approval be properly implemented, monitored, and reported on. This requirement is codified statewide as PRC § 21081.6, which requires a public agency to adopt a mitigation monitoring or reporting program, when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. CEQA Guidelines Section 15097 describes agency requirements for mitigation monitoring or reporting.

The CPUC would address its responsibilities under PRC § 21081.6 when it takes action on SDG&E's application for a Certificate of Public Convenience and Necessity. If the Commission approves the Proposed Project or an alternative, it also would adopt an MMRP and include the mitigation measures as a condition of approval. The MMRP would be incorporated into the MMCRP.

The purpose of an MMCRP is to ensure that the measures adopted to mitigate or avoid significant impacts of a project are implemented, and to report on their implementation. The CPUC views the MMCRP as a working guide to facilitate implementation of mitigation measures imposed by the approving agencies measures and any measures proposed by the project proponent, and to provide for the monitoring, compliance, and reporting activities of the CPUC and its designated monitors.

9.2 ORGANIZATION OF THE MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

If the Proposed Project or an alternative is approved, the CPUC would compile the Final MMRP and include it in the Final EIR, as adopted. Based on the MMRP, the MMCRP would be prepared and would serve as a self-contained guide for implementing the MMRP throughout project construction.

The Final MMCRP would contain a concise overview and description of the approved project, outline its physical locations and geographic limits, and, to the extent known, provide the project schedule. It would include all adopted mitigation measures and would specify the master reference document(s) that the monitors and SDG&E would use in carrying out the MMRP (e.g., the Final EIR, detailed working maps and plans, issued permits, etc.). The APMs to which SDG&E has committed would be incorporated to the extent they have not been superseded by specific mitigation measures in the EIR.

The MMCRP would include a list of the agencies having jurisdiction over various aspects of the project, and a description of where these respective jurisdictions occur. For example, the MMCRP would state which CDFW regional office has jurisdiction and provide contact information, including the designated representative's name, address, email, and telephone and fax numbers.

The MMCRP would also include definition of the manner in which SDG&E's monitoring team would interact with the CPUC staff and consultants. In addition, the MMCRP would define SDG&E's required submittals to the agencies, and protocol for interactions among agency and SDG&E team members.

The MMCRP would be structured as follows:

1. Introduction
    a. Authority and Purpose of the MMCRP
    b. Jurisdictional Agencies
    c. Project Description
    d. Organization of the MMCRP
2. Roles and Responsibilities
    a. Monitoring Responsibility
    b. Enforcement Responsibility
    c. Mitigation Compliance Responsibility
    d. Communications
    e. Dispute Resolution
    f. SDG&E Roles
        i. Identification of the qualified SDG&E team members who would verify that all adopted measures and conditions have been successfully implemented.
        ii. Organization of the SDG&E team, including specifying duties, roles, and responsibilities.
        iii. Identification of primary SDG&E contacts for CPUC environmental monitoring staff liaison.
3. General Monitoring and Compliance Procedures
    a. Environmental Monitors
    b. Construction Personnel
    c. General Reporting Requirements
        i. SDG&E Compliance Levels for internal reporting
        ii. SDG&E Daily Incident Summary format and protocol
        iii. SDG&E Weekly Monitoring Report format and content
        iv. SDG&E Annual Monitoring Report format and content
    d. Records Management and Public Access to Records
4. Mitigation Measure Tables

9.3 ROLES AND RESPONSIBILITIES

Responsibility for implementing the adopted measures rests with SDG&E, unless otherwise specified in the measure.

As Lead Agency under CEQA, the CPUC is responsible for monitoring an approved project to ensure that required mitigation measures and APMs are implemented. The required MMRP would be implemented through the MMCRP. The purpose of the MMRP is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the EIR.

The CPUC may delegate duties and responsibilities for monitoring to environmental monitors or consultants working on behalf of the CPUC. As well, some monitoring responsibilities may be assumed by responsible agencies, where areas or resources under their jurisdiction are potentially affected or involved.

SDG&E would deploy its own monitors for its own purposes, to ensure implementation of its commitments and execution of its responsibilities. The number of SDG&E construction monitors assigned to the project would be determined by the utility and would depend on the number of concurrent construction activities underway, their locations, and the types of resources potentially affected. The CPUC would ensure that persons assigned monitoring duties by SDG&E are qualified to undertake those duties.

When a mitigation measure requires that a study or plan be developed during the design or pre-construction phase of the project, SDG&E must submit the final study or plan to CPUC for review and approval. Any study or plan that requires approval of the CPUC must allow at least 60 days for adequate review unless noted otherwise in the mitigation measure. Other agencies and jurisdictions with authority over aspects of the Proposed Project or particular resources may require additional review time. The CPUC environmental monitoring team would be responsible for confirming that appropriate agency reviews have occurred and required approvals were obtained by SDG&E.

During the course of construction, circumstances may arise that require deviations from the project as approved. The CPUC, along with their environmental monitors, would evaluate any proposed deviations from the approved project to ensure they are consistent with CEQA requirements. Depending on its nature, a requested deviation would be processed as a Minor Project Change (MPC) or be the subject of a Petition for Modification (PFM) submitted by the Applicant.

MPCs would be strictly limited to minor project changes that do not trigger additional permit requirements, do not increase the severity of an impact or create a new impact, and are within the geographic scope of the EIR.

If a project change would create or have the potential to create a new significant impact, increase the severity of an impact, or occur outside the geographic area evaluated in the EIR,

SDG&E would be required to submit a PFM. The CPUC would evaluate the PFM under CEQA, as appropriate, to determine what form of supplemental environmental review would be required.

9.3.1 Enforcement Responsibility

The CPUC would be responsible for monitoring implementation of the MMCRP and enforcing the procedures adopted. Generally, this would be done through the Environmental Monitors assigned by the permitting agencies. In addition, if the permitting agencies' Environmental Monitors note conditions or situations falling within the purview of other agencies, they may notify the appropriate agencies or individuals about any problems, and report these to the CPUC.

As the State's regulator of investor-owned utilities, CPUC has the authority to halt any construction, operation, or maintenance activity associated with the project if the activity is determined to be a deviation from the approved project or the adopted mitigation measures.

9.3.2 Compliance Responsibility

SDG&E would be responsible for successfully implementing all the adopted mitigation measures in the MMCRP. The MMCRP would contain criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds may be established through the review and approval of specific plans required under mitigation measures. Other requirements may be stipulated by another agency with applicable jurisdiction during that agency's permitting process.

SDG&E would inform CPUC and the Environmental Monitors in writing of any mitigation measures that are not or cannot be successfully implemented and provide alternative approaches for successful mitigation implementation. The CPUC, in coordination with their Environmental Monitors, would review the alternative approach to determine if it is adequate and whether an MPC or PFM would apply.

9.4 DISPUTE RESOLUTION

It is expected that the Final MMCRP would greatly reduce or eliminate potential disputes. However, even with the best preparation, disputes may occur. In such an event, the following procedure would be observed:

- **Step 1.** Disputes and complaints (including those from the public) should be directed first to the CPUC Project Manager or designee, as appropriate, for resolution. The Project Manager or designee would attempt to resolve the dispute.
- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved project or adopted MMRP.

The following steps apply to the CPUC only:

- **Step 3.** If a dispute or complaint regarding the implementation or evaluation of the MMRP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any 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 expeditiously 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) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on 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, they may appeal it to the Commission via a procedure to be specified by the Commission.

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

9.5 GENERAL MONITORING PROCEDURES

9.5.1 Environmental Monitors

Many of the monitoring procedures would be conducted during the construction phase of the project. The CPUC and Environmental Monitors are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SDG&E. To oversee the monitoring procedures and to ensure success, the Environmental Monitors assigned must be onsite during any construction activity for which mitigation is required. The Environmental Monitors are responsible for ensuring that all procedures specified in the MMCRP are followed.

9.5.2 Construction Personnel

A key element in the success of mitigation and mitigation monitoring is the full cooperation of construction personnel and supervisors. Successful implementation of many of the mitigation measures requires specific actions and behaviors on the part of the construction supervisors or crews. To ensure success, the following actions, detailed in specific mitigation measures included in the MMCRP, would be taken:

- Procedures to be followed by construction companies engaged to do the work would be written into their contracts with SDG&E. Procedures to be followed by construction crews would be written into a separate agreement that all construction personnel would be asked to sign, denoting consent to the procedures.
- As specified by mitigation, a SEAP would be conducted to inform and train construction personnel about the requirements of the monitoring program (as

detailed in the MMCRP). The CPUC Environmental Monitors would verify that each crew member receives the required training.

- A written summary of mitigation monitoring procedures would be provided to construction supervisors for all mitigation measures requiring their attention.

9.5.3 Reporting Procedures

Detailed weekly reports would be prepared and submitted by the CPUC environmental monitoring team. These would include detailed information on construction activities, compliance activities observed by the Environmental Monitors and others documented by SDG&E, any issues and their resolution, and photographs of relevant activities and conditions.

SDG&E is required to have its own monitors for particular resources, depending on project needs and activities. These monitors provide daily reports/surveys that are entered into SDG&E's field record environmental database (FRED) system. It is assumed that FRED or a similar database would be employed on this project. CPUC Environmental Monitors would have access to the reports. Construction is not allowed to start in a particular area until the required pre-construction surveys and flagging/staking are completed per the MMCRP, and the CPUC environmental monitor has validated compliance and the CPUC has issued a Notice to Proceed.

SDG&E is required to provide the CPUC with written weekly and annual reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project.

9.5.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports would be made available for public inspection by the CPUC on request. The CPUC and SDG&E would develop a filing and tracking system. For additional information on mitigation monitoring and reporting for the project, the Energy Division of the CPUC would maintain an Internet website, accessible at:

http://www.cpuc.ca.gov/Environment/info/panoramaenv/Sycamore_Penasquitos/index.html

To facilitate the public's awareness, the CPUC would make weekly reports available on the website.

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Table 9.1-1 Mitigation Monitoring and Reporting Plan

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Aesthetics					
APM AES-1: Visual Screening: Where staging yards are visible to the public, opaque mesh or slats (or equivalent material) will be installed along the fence that will screen view of the staging yards from public vantage points, such as roads and residences.	CPUC verifies that SDG&E installs opaque mesh, slats, or equivalent materials along the fence at staging yards.	Views of staging yards from public vantage points are screened.	Prior to construction	Where staging yards are visible to the public	SDG&E, CPUC
APM AES-2: Restore Temporarily Disturbed Areas. When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, to the extent practical, to approximate preconstruction conditions while maintaining adequately safe work areas for operation and maintenance activities, as needed. Re-vegetation will be used, where appropriate (re-vegetation in certain areas is not possible due to vegetation management requirements related to fire safety) to re-establish a natural appearing landscape and reduce potential visual contrast between disturbed areas and the surrounding landscape. In addition, all construction materials and debris will be removed from the Proposed Project area and recycled or properly disposed of off-site.	CPUC verifies that SDG&E restores all temporarily disturbed terrain, to the extent practical, to approximate preconstruction conditions; maintains adequately safe work areas for operation and maintenance activities as needed; uses re-vegetation where appropriate; and removes and recycles or properly disposes off-site, all construction materials and debris from the Proposed Project area.	Temporarily disturbed terrain will be restored in appearance to a natural landscape or to have minimal visual contrast with the surrounding landscape. Visual impacts are reduced by removing construction materials and debris.	Post-construction	All construction areas	SDG&E, CPUC
APM AES-3: Landscaping for Cable Poles. Final design of the eastern and western cable poles will consider design measures, such as landscaping installed outside of new perimeter chain-link fencing.	CPUC verifies that SDG&E considers design measures in the final design for eastern and western cable poles.	Eastern and western cable poles will be screened from view.	Final Planning and Design	Eastern and western cable poles	SDG&E, CPUC
APM AES-4: Temporary Lighting. Temporary security lighting at staging and storage areas will be directed on site and away from any sensitive receptors.	CPUC verifies that SDG&E directs temporary security lights at staging yards away from sensitive receptors.	Visual effects of temporary security lighting are minimized.	During construction	All staging yards	SDG&E, CPUC
APM AES-5: Glare Reduction. New pole structures are designed utilizing dulled galvanized steel to minimize the potential for visual impacts relating to glare. Non-specular conductors are used to reduce potential glare. New fencing installed as part of the Proposed Project, including fencing around new cable poles, will be a dull, non-reflective finish or vinyl coated to reduce potential glare.	CPUC verifies that SDG&E installs dull galvanized steel pole structures, non-specular conductors, and new fencing with dull, non-reflective finish or vinyl coating.	The visual effects of glare are minimized by using dull galvanized steel for structures.	During construction	All pole structure, conductor, and new fencing locations	SDG&E, CPUC
Mitigation Measure Aesthetics-1: Replace Landscape Trees. SDG&E shall coordinate with the City of San Diego to replace any landscape trees within the City of San Diego road right-of-way that are impacted during construction. SDG&E may either directly replace the trees, if approved by the City of San Diego, or SDG&E may pay a fee to the City of San Diego for replacement of the landscape trees. Tree replacement shall occur at 1:1 ratio. All replacement trees shall be maintained for a period of 5 years. Any trees that do not survive during the maintenance period shall be replaced.	CPUC verifies that SDG&E coordinates with the City of San Diego for the replacement or payment of fees for replacement of landscaped trees; CPUC verifies that SDG&E maintains planted trees for 5 years.	SDG&E replaces impacted trees at a 1:1 ratio and maintains those trees for 5 years or SDG&E pays fees to the City of San Diego for replacement of trees	Prior to construction and during construction – Coordination with City of San Diego Post-construction – Tree replacement or payment of fees	Trees located within the City of San Diego ROW impacted by the Proposed Project	SDG&E, CPUC
Mitigation Measure Aesthetics-2: Retaining Wall Screening. Retaining walls shall use blocks that accommodate plants along the wall face. The block color shall be similar in hue and value to the native soil or up to 2 shades darker. All retaining walls shall be planted with native vegetation common to the area. SDG&E shall submit a retaining wall design and vegetation plan to the CPUC for review and approval. The retaining wall design shall show the planting pockets in the blocks and the color of the blocks for all project retaining walls. SDG&E shall not order or procure the blocks until CPUC approves the design and color of the blocks. The vegetation plan shall include a list of all species to be planted in the retaining walls and the container size for the plantings. Vegetation planted in the retaining walls shall be maintained and watered as needed until plant material is established. Plants that die shall be replaced with similar specimens. SDG&E shall monitor the vegetation planted in the retaining wall pockets for three years or until plants are fully established.	A retaining wall design and vegetation plan is prepared by SDG&E according to this mitigation measure and is approved by CPUC and implemented by SDG&E; CPUC verifies that SDG&E monitors vegetation for a minimum of three years.	Visual effects of retaining walls are minimized by using block color that are similar in hue and value to the native soil or up to 2 shades darker and have plants growing along the retaining wall.	Prior to construction - Retaining wall design and vegetation plan is submitted to CPUC Post-construction – Monitoring of vegetation for a minimum of three years	All retaining walls	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Aesthetics-3: Facilities Color Treatment Plan. SDG&E shall prepare a Facilities Color Treatment Plan describing the application of colors to all new structures. The proposed color treatments shall minimize visual intrusion and contrast by matching the new structure's color to the adjacent existing structures and surroundings. Ancillary structures shall use colors that are congruent with the landscape in which they are proposed. Color treatments shall reduce new structure contrast making new structures less noticeable. The Plan shall be submitted to CPUC for review and approval at least 90 days prior to ordering the first structure to be color treated. The Facilities Color Treatment Plan shall include: • Specification, and 11 x 17 inch color simulations at real-world scale, of the treatment proposed for use on project structures from identified KOPs. Structures include TSPs, retaining wall faces, and fences for cable poles and staging areas • List of each major project structure, specifying the color and finish proposed • Two sets of brochures and/or color chips for the proposed color for each project element • A detailed schedule for completion of the treatment • A procedure to ensure proper treatment maintenance for the life of the project SDG&E shall not specify to the vendors the treatment of any structures treated during manufacture or perform the final treatment on any structures treated onsite during construction until SDG&E receives notification of approval of the Color Treatment Plan by the CPUC.	A Facilities Color Treatment Plan is prepared by SDG&E according to the provisions identified in this mitigation measure and is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the Facilities Color Treatment Plan.	Minimize visual intrusion and contrast by implementing the Facilities Color Treatment Plan.	Prior to Construction – Facilities Color Treatment Plan will be submitted to CPUC 90 days prior to construction During Construction – Implement Plan	New structures	SDG&E, CPUC
Mitigation Measure Aesthetics-4: Cable Pole Screening. SDG&E shall prepare a Landscape Plan that details the landscape treatment and fence design around the cable poles. The Landscape Plan shall include vegetation to screen the base of the cable pole and fence to the extent feasible. Vegetation around the cable pole shall consist of container plantings due to the need to visually screen the cable pole. The vegetation type selected shall be compatible with the surrounding vegetation communities. Vegetation planted around the cable pole shall be maintained and watered as needed until plant material is established. Plants that die shall be replaced with similar specimens. SDG&E shall monitor the vegetation around the cable pole until all container plants are fully established. SDG&E shall submit the Landscape Plan to the CPUC for review and approval at least 60 days prior to construction of the cable pole. No work shall be conducted at the cable pole prior to CPUC approval of the Landscape Plan.	A Landscape plan is prepared by SDG&E according to the provisions identified in this mitigation measure and is approved by CPUC and implemented by SDG&E; CPUC verifies that SDG&E monitors vegetation for a minimum of three years.	Cable poles and fences are screened with vegetation.	Prior to construction – Landscape Plan is submitted to CPUC at least 60 days prior to construction Post-construction – Monitoring of vegetation for a minimum of three years	All cable poles along the transmission line	SDG&E, CPUC
Mitigation Measure Aesthetics-5: Nighttime Lighting. SDG&E shall ensure that all nighttime lighting used for construction is shielded, pointed down, and directed away from surrounding properties and adjacent natural habitats. For operation and maintenance, all flashing red strobe lights required on tower structure shall be synchronized to flash at the same time as other strobe lights in the same viewshed.	CPUC verifies that SDG&E points nighttime lights down, installs shields on lights, directs lights away from surrounding properties and adjacent natural habitats, and synchronizes the timing of red strobes to other strobes in the viewshed.	Visual effects of glare are reduced by shielding and pointing lights downward and synchronizing red strobes.	During construction – Nighttime lighting during construction Operation and Maintenance – Synchronization of red strobes	All locations with nighttime lighting and all poles with red strobes	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Air Quality					
APM AIR-1: Fugitive Dust Control. All unpaved demolition and construction areas shall be wet/ watered at least three times daily during construction, and temporary dust covers shall be used to reduce dust emissions and meet SDAPCD Rule 55 requirements. All construction areas shall be sufficiently dampened to control dust caused by construction and hauling, and at all times provide reasonable dust control of areas subject to windblown erosion. All loads shall be secured by covering or use of at least 2 feet of freeboard to avoid carryover. All materials transported off-site shall be either sufficiently watered or securely covered. All earthmoving or excavation activities shall be discontinued during periods of winds greater than 25 miles per hour (mph) to prevent excessive amounts of fugitive dust generation.	CPUC verifies that SDG&E meets SDAPCD Rule 55 requirements, wets all unpaved demolition and construction, secures all loads to avoid carryover, sufficiently waters or covers all materials transported off-site, and discontinues all earthmoving or excavation activities during periods of winds greater than 25 mph.	Fugitive dust has been controlled inside and outside of the project area.	During construction	Applies to all unpaved demolition and construction areas, stockpiles of earthen materials, and all areas where earth-moving or excavation activities occur	SDG&E, CPUC
APM AIR-2: Vehicle and Equipment Exhaust Controls. All equipment shall be properly tuned and maintained in accordance with manufacturer specifications. An Idling Restrictions Program shall be implemented. SDG&E or its contractor shall maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall have their engines turned off after 5 minutes when not in use. Construction activities shall be phased and scheduled to avoid emissions peaks, and equipment use shall be curtailed during second-stage smog alerts. This will also result in a significant decrease in impacts from Diesel Particulate Matter. All areas where construction vehicles are typically parked, staged, or operating shall be visibly posted with signs stating "No idling in excess of 5 minutes." Catalytic converters shall be installed on all heavy construction equipment, where feasible. To the extent possible, power shall be obtained from power or distribution poles (i.e., from the electrical grid) rather than through the use of large generators on-site. Deliveries shall be scheduled during off-peak traffic periods to reduce trips during the most congested periods of the day, where feasible. SDG&E would encourage carpooling to reduce worker trips where feasible. Construction sites shall be posted with signs providing a contact number for complaints. All complaints shall be addressed in a timely and effective manner.	An Idling Restriction Program is prepared by SDG&E according to the provisions identified in this measure and is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the Idling Restriction Program.	Vehicle and equipment exhaust would be minimized with the implementation of the measures in the Idling Restriction Program.	During construction	Entire project area	SDG&E, CPUC
APM AIR-3: Low- and Non-VOC Architectural Coatings. Low- and non-VOC containing coatings, sealants, adhesives, solvents, asphalt, and architectural coatings shall be used to reduce VOC emissions.	CPUC verifies that SDG&E uses low- and non-VOC containing coatings, sealants, adhesives, solvents, asphalt, and architectural coatings.	All coatings, sealants, adhesives, solvents, asphalt, and architectural coatings are low- or non-VOC.	During construction - prior to application of coatings, sealants, adhesives, solvents, asphalt, and architectural coatings	All locations where coatings, sealants, adhesives, solvents, asphalt, and architectural coatings will be used	SDG&E, CPUC
APM AIR-4: Equipment Emissions Standards. All equipment will meet a minimum of USEPA Tier 2 emission standards. For the purpose of this evaluation, equipment would be comprised of a mix of 70 percent Tier 2 equipment and 30 percent Tier 3 equipment. All on-road heavy-duty vehicles, off-road construction vehicles, and portable equipment used in the project will comply with CARB's Airborne Diesel Air Toxic Measures (ATCMs).	CPUC verifies that The equipment used by SDG&E during construction meet a minimum of USEPA Tier 2 and all on-road heavy-duty vehicles, off-road construction vehicles, and portable equipment comply with CARB's ATCMS.	Equipment meets the standards described in this measure.	Prior to construction	Entire project area	SDG&E, CPUC
Mitigation Measure Air-1: RAQS Architectural Coating Standards. All coatings, sealants, adhesives, solvents, asphalt, and architectural coatings shall be in conformance with CARB's Suggested Control Measure for Architectural Coatings, and with SDAPCD's VOC Rules 61, 66.1, 67.0, and 67.17.	CPUC verifies that coatings, sealants, adhesives, solvents, asphalt, and architectural coatings used by SDG&E conform to CARB's Suggested Control Measure for Architectural Coatings, and to SDAPCD's VOC Rules 61, 66.1, 67.0, and 67.17.	All coatings, sealants, adhesives, solvents, asphalt, and architectural coatings conform to CARB's Suggested Control Measure for Architectural Coatings, and to SDAPCD's VOC Rules 61, 66.1, 67.0, and 67.17.	During construction - prior to application of coatings, sealants, adhesives, solvents, asphalt, and architectural coatings	All locations where coatings, sealants, adhesives, solvents, asphalt, and architectural coatings will be used	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Air-2: Tier 3 Exhaust Emission Standards. A minimum of 30 percent of all vehicles and equipment used during construction shall meet a minimum of EPA's Tier 3 exhaust emission standards.	CPUC verifies that a minimum of 30 percent of all vehicles and equipment used by SDG&E meet a minimum of EPA's Tier 3 exhaust emission standards.	The EPA's Tier 3 exhaust emission standards are met by a minimum of 30 percent of all vehicles and equipment used by SDG&E.	During construction	Entire project area	SDG&E, CPUC
Mitigation Measure Air-3: Dust Control Management Plan. SDG&E shall submit a Dust Control Management Plan to the CPUC for review and approval no less than 30 days prior to construction. The Dust Control Management Plan shall contain measures that provide for conformance to SDAPCD Rule 55 requirements including: 1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period; and 2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall: i. Be minimized by the use of any of the following or equally effective track-out/carry-out and erosion control measures that apply to the project or operation: track-out gates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and ii. Be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry out, only PM10-efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances. Measures to comply with visible dust emissions restrictions could include: • Watering or applying soil stabilizers to areas with loose dust • Ceasing earthmoving activities when wind speed exceeds 20 miles per hour • Covering soil stockpiles	A Dust Control Management Plan that contains measures that conform to SDAPCD Rule 55 requirements is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the Dust Control Management Plan.	Dust emissions are minimized by implementing the dust control measures in the Dust Control Plan.	Prior to construction – Dust Control Plan is submitted to the CPUC 30 days prior to construction During construction – Implementation of Dust Control Plan	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Biology					
APM BIO-1: Minimization of Impacts to Special-Status Plants. Implementation of the following measures will ensure impacts to special-status plant species remain less than significant : • Prior to construction, SDG&E shall retain a qualified biologist to conduct focused, special-status plant surveys during the spring and summer 2014 in all habitats that may support the special-status plant species with a potential to occur in the Proposed Project Survey Area. • Locations of special-status plants shall be identified and inventoried. • The qualified biologist shall supervise construction activities within the vicinity of areas identified as having special-status plant species. • Impacts to special-status plant species shall be avoided to the maximum extent possible by installing fencing or flagging, marking areas to be avoided in construction areas, and limiting work in areas identified as having special-status plant species to periods of time when the plants have set seed and are no longer growing. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated though off-site land preservation, plant salvage, transplantation, or other appropriate methods as determined by the qualified biologist. Alternatively, if the special-status plant species in question is a *SDG&E Subregional NCCP* covered species, mitigation consistent with measures established in the NCCP and discussed in the *SDG&E Subregional NCCP*, above, shall be provided.	CPUC verifies that SDG&E conducts focused, special-status plant surveys during the spring and summer 2014 and verifies that SDG&E identifies the location of special-status plant, installs fencing or flagging for special-status plants, and provides compensatory mitigation as necessary.	Impacts to special-status plants are reduced by surveying, identifying special-status plant locations, fencing, flagging areas to be avoided, and compensatory mitigation.	Prior to Construction – Focused special-status plant surveys During construction – Avoiding areas flagged and fenced off during construction	All work areas that may support special-status plant species	SDG&E, CPUC
APM BIO-2: SDG&E Subregional NCCP. The Proposed Project will avoid and minimize impacts to biological resources through implementation of the SDG&E Subregional NCCP. The SDG&E Subregional NCCP establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair of SDG&E facilities within the SDG&E Subregional NCCP coverage area. The Proposed Project is located within the SDG&E Subregional NCCP coverage area. The SDG&E Subregional NCCP includes a Federal Endangered Species Act (ESA) Section 10(A) permit and a California ESA Section 2081 memorandum of understanding (for incidental take) with an Implementation Agreement with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW – formerly the California Department of Fish and Game), respectively, for the management and conservation of multiple species and their associated habitats, as established according to the Federal and State ESAs and California's NCCP Act. The NCCP's Implementing Agreement confirms that the mitigation, compensation, and enhancement obligations contained in the Agreement and the SDG&E Subregional NCCP meet all relevant standards and requirements of the California ESA, the Federal ESA, the NCCP Act, and the Native Plant Protection Act with regard to SDG&E's activities in the Subregional Plan Area. Pursuant to the SDG&E Subregional NCCP, SDG&E will conduct pre-construction studies for all activities occurring off of existing access roads in natural areas. An independent biological consulting firm will survey all Proposed Project impact areas and prepared a Pre-activity Study Report (PSR) outlining all anticipated impacts related to the Proposed Project. The Proposed Project will include monitoring for all project components, as recommended by the PSR and outlined in the SDG&E Subregional NCCP, as well as other avoidance and minimization measures outlined in the NCCP's Operational Protocols. The PSR will be submitted to the CDFW and USFWS for review. Prior to the commencement of construction, a verification survey will be conducted of the Proposed Project disturbance areas, as required by the SDG&E Subregional NCCP. Biological monitors will be present during construction to assure implementation of the avoidance and minimization measures. If the previously-delineated work areas must be expanded or modified during construction, the monitors will survey the additional impact	CPUC verifies that measures in the SDG&E Subregional NCCP are implemented, that biological monitoring is performed as defined in the measure, that reports are prepared, and that the NCCP Annual Report is submitted to CDFW and USFWS. The CPUC will determine whether compliance with permit conditions will also satisfy the performance standards or requirements identified in mitigation measures in this EIR; SDG&E will submit adequate documentation to CPUC to verify compliance.	Impacts to sensitive biological resources are avoided or mitigated in accordance with SDG&E's Subregional NCCP. The Post-Construction Report and NCCP Annual Report accurately reflect impacts and corresponding compensatory mitigation for authorized take.	Prior to Construction - Perform verification survey prior to start of construction, CPUC verifies status of the NCCP amendments and whether the NCCP can be used. During Construction – Biological monitors present throughout construction Post-Construction – Perform completion survey of entire project area after construction is complete and submit Post-Construction Report and NCCP Annual Report after construction is complete	Entire project area	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
area to determine if any sensitive resources will be impacted by the proposed activities, to identify avoidance and minimization measures, and to document any additional impacts. Any additional impacts are included in a Post-construction Report (PCR) for purposes of calculating the appropriate mitigation, which generally includes site enhancement or credit withdrawal from the SDG&E mitigation bank. When construction is complete, the biological monitor will conduct a survey of the entire line to determine actual impacts from construction. The PCR will determine how much site enhancement and credit withdrawal from the SDG&E mitigation bank will be required to address impacts from project related activities. These impact and mitigation credit calculations are submitted to the USFWS and the CDFW as part of the NCCP Annual Report pursuant to requirements of the NCCP and the NCCP Implementing Agreement. Specific operating restrictions that are incorporated into the Proposed Project design to comply with the SDG&E Subregional NCCP include the following: • Vehicles would be kept on access roads and limited to 15 miles per hour (Section 7.1.1, 1.). • No wildlife, including rattlesnakes, may be harmed, except to protect life and limb (7.1.1, 2.). • Feeding of wildlife is not allowed (Section 7.1.1, 4.). • No pets are allowed within the ROW (Section 7.1.1, 5.).). • Plant or wildlife species may not be collected for pets or any other reason. (Section 7.1.1, 7). • Littering is not allowed, and no food or waste would be left on the ROW or adjacent properties (Section 7.1.1, 8.). • Measures to prevent or minimize wild fires would be implemented, including exercising care when driving and not parking vehicles where catalytic converters can ignite dry vegetation (Section 7.1.1, 9.). • Field crews shall refer all environmental issues, including wildlife relocation, dead, or sick wildlife, or questions regarding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may be necessary to assist with wildlife relocations (Section 7.1.1, 10.). • All SDG&E personnel would participate in an environmental training program conducted by SDG&E, with annual updates (Section 7.1.2, 11.). • The Environmental Surveyor shall conduct pre-activity studies for all activities occurring in natural areas, and will complete a proactivity study form including recommendations for review by a biologist and construction monitoring, if appropriate. The form will be provided to CDFW and USFWS but does not require their approval (Section 7.1.3, 13.). • The Environmental Surveyor shall flag boundaries of habitats to be avoided and, if necessary, the construction work boundaries (Section 7.1.3, 14.). • The Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable (Section 7.1.4, 25.).). • In the event SDG&E identifies a covered species (listed as threatened or endangered by the federal or state) of plant within the temporary work area (10 foot radius) surrounding a power pole, SDG&E would notify the USFWS (for Federal ESA listed plants) and CDFW (for California ESA listed plants) (Section 7.1.4, 28.). • The Environmental Surveyor shall conduct monitoring as recommended in the pre-activity study form (Section 7.1.4, 35.). • Supplies, equipment, or construction excavations where wildlife could hide (e.g., pipes, culverts, pole holes, trenches) shall be inspected prior to moving or working on/in them (Section 7.1.4, 37, and 38.). • Fugitive dust will be controlled by regular watering and speed limits (Section 7.1.4, 39.).					

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
• During the nesting season, the presence or absence of nesting species (including raptors) shall be determined by a biologist who would recommend appropriate avoidance and minimization measures (Section 7.1.6, 50). • Maintenance or construction vehicle access through shallow creeks or streams is allowed. However no filling for access purposes in waterways is allowed (Section 7.1.7, 52). • Staging/storage areas for equipment and materials shall be located outside of riparian areas (Section 7.1.7, 53.).					
APM BIO-3: SDG&E QCB HCP. SDG&E will implement the SDG&E QCB HCP, which was developed to protect the Quino Checkerspot Butterfly and its habitat through implementation of both general and Quino Checkerspot Butterfly-specific operational protocols that were designed to avoid or minimize take of the species.	CPUC verifies that SDG&E implements the SDG&E QCB HCP, including implementing general and specific operational protocols.	General and specific operational protocols are implemented according to the SDG&E QCB HCP and impacts to QCB are avoided as a first priority or minimized as a second priority.	During Construction	QCB habitat within the Proposed Project area	SDG&E, CPUC
APM BIO-4: Vernal Pool Avoidance and Minimization. SDG&E will implement the following measures to avoid and minimize impacts to vernal and road pools. • The boundaries of all pools located within the immediate vicinity of any project related work shall be mapped by a qualified biological monitor to assist in avoidance. The biological monitor will determine and delineate an appropriate exclusion/buffer zone for each pool. • A qualified biological monitor shall be present during all project related activities in areas containing delineated pools in order to avoid and minimize potential impacts to sensitive resources. • Any project related work scheduled to occur within the exclusion/buffer zone of delineated pools shall be conducted when pools are dry as determined by the qualified biological monitor. • Vehicle trips in areas that contain delineated pools shall be limited, to the extent feasible. Crews shall carpool and/or walk in to limit trips. Helicopters should be utilized wherever possible to limit vehicle access in areas containing delineated pools. Guidance shall be provided by the qualified biological monitor. • Steel plates and/or geotextile mats shall be placed over delineated pools, where feasible, in order to avoid and minimize potential impacts or temporary disturbance to pools from project vehicles. • No project-related staging, parking or storage shall occur within or directly adjacent to delineated pools. • No fueling or repair of project vehicles or equipment shall occur within 150 feet of delineated pools.	CPUC verifies that SDG&E implements the minimization measures to avoid and minimize impacts to vernal pools.	Potential impacts to vernal or road pools are avoided by mapping their locations, monitoring construction activities, limiting vehicles trips, and using steel plates. If construction activities cannot avoid pool areas, impacts are minimized by placing steel plates and/or geotextile mats over pools for use by project vehicles.	Prior to Construction	Vernal pools within the Proposed Project area	SDG&E, CPUC
Mitigation Measure Biology-1a: General Field Personnel Behavior Requirements. All field personnel shall abide by the following general behavior requirements: 1. Vehicles must be kept on approved access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads. Vehicles shall be turned around in established or designated areas only. 2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb. 3. Firearms shall be prohibited except for those used by security personnel. 4. Feeding of wildlife shall not be allowed. 5. SDG&E personnel shall not bring pets to work areas in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations. 6. Parking or driving underneath oak trees shall not be allowed in order to	CPUC verifies that all SDG&E personnel are properly informed and trained to abide by the behavioral requirements as described in the mitigation measure.	Environmental issues are avoided by having trained personnel.	During construction	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
protect root structures except in established traffic areas. 7. Plant or wildlife species shall not be collected for pets or any other reason. 8. Littering shall not be allowed. SDG&E shall not deposit or leave any food or waste in any work area. 9. Wildfires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, trucks shall carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care shall be exhibited when smoking. 10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impact to a biologist(s) approved by the CPUC and the USFWS and CDFW. Other CPUC- and USFWS- or CDFW-biologists or experts in wildlife handling may need to be brought in for assistance with wildlife relocations.					
Mitigation Measure Biology-1b: Environmental Training Program. An environmental training program shall be developed and presented to all crew members prior to the beginning of all project construction. The training shall describe special-status plant and wildlife species and sensitive habitats that could occur within project work areas, protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. Penalties for violations of environmental laws shall also be incorporated into the training session. Each crewmember shall be provided with an informational training handout and a decal to indicate that he/she has attended the training. The roles and responsibilities of CPUC-, USFWS-, and CDFW-approved biologist(s) and other environmental representatives shall be identified in the Mitigation Monitoring, Compliance, and Reporting Program and discussed during the training. All new construction personnel shall receive this training before beginning work on this project. A copy of the training and training materials shall be provided to CPUC for review and approval at least 30 days prior to the start of construction. Training logs and sign-in sheets shall be provided to CPUC on a monthly basis. As needed, in-field training shall be provided to new on-site construction personnel by the environmental compliance supervisor or a qualified individual who shall be identified by SDG&E's Project Biologist, or initial training shall be recorded and replayed for new personnel.	An environmental training program is prepared by SDG&E, approved by CPUC, and implemented by SDG&E; CPUC reviews the training logs and sign-in sheets provided by SDG&E; CPUC verifies that SDG&E provides in-field training to construction personnel.	New crew members are adequately trained prior to the start of construction to avoid and/or minimize impacts to special-status plant and wildlife species, and sensitive habitats during project construction	Prior to construction – Training is completed prior to construction and training materials are provided to CPUC for review and approval at least 30 days prior to the start of construction	Entire project area	SDG&E, CPUC
Mitigation Measure Biology-1c: Pre-Activity Surveys. The CPUC-, USFWS-, and CDFW-approved biologist(s) shall conduct a pre-activity survey for all activities occurring off of access roads in sensitive habitats. The pre-activity survey shall be conducted no earlier than 30 days prior to surface disturbance. The results of the pre-activity survey shall be documented by the Qualified Biologist in a pre-activity survey report. The pre-activity survey report shall be submitted to the CPUC for review and approval prior to the start of construction, and the results shall be submitted to CDFW and USFWS as required by any regulatory permits or approvals. The pre-activity study report shall include the following: • Type, location, and size of project • Date, time, weather, surrounding land uses • Evaluation of type and quality of habitat • Work description and methods which will be used to avoid or minimize ground disturbance, including biological monitoring during construction • Anticipated impacts and proposed mitigation • Map of location of work area In those situations where the Qualified Biologist cannot make a definitive species	A pre-activity survey report summarizing the results of the pre-activity surveys is prepared by SDG&E and reviewed by CPUC, CDFW, and USFWS; CPUC verifies that SDG&E implements flagging of habitats to be avoided and/or demarcation of appropriate areas for equipment laydown and vehicle turnaround; CPUC verifies that SDG&E maintains a library of verified special-status plant species locations occurring within the project BSA.	All activity areas in natural areas off of access roads are surveyed prior to surface disturbance by an approved biologist. Boundaries of habitat which must be avoided are flagged by an approved biologist. A library of verified special-status plant species locations occurring within the project BSA is maintained by SDG&E.	Prior to construction – Conduct pre-activity survey 30 days prior to surface disturbance and submit pre-activity survey to CPUC for approval prior to the start of construction	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
identification, the Qualified Biologist shall make a determination based on the available evidence and professional expertise. In order to ensure that habitats are not inadvertently impacted, the CPUC-, USFWS-, and CDFW-approved biologist shall flag boundaries of habitat which must be avoided. When necessary, the CPUC-, USFWS-, and CDFW-approved biologist shall also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the CPUC-, USFWS-, and CDFW-approved biologist shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project site-specific basis. SDG&E shall maintain a library of special-status plant species locations, known to SDG&E, occurring within the project BSA. "Known" means a verified population either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance of the project. Plant inventories shall be consulted as part of pre-activity survey procedures.					
Mitigation Measure Biology-1d: Maintenance, Repair, and Construction of Facilities. SDG&E shall implement the following measures pertaining to maintenance, repair, and construction of facilities: 1. Maintenance, repair and construction activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs. 2. Routine maintenance of all facilities shall include visual inspections on a regular basis, conducted from vehicles driven on the project access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot or from the air. 3. Erosion shall be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion. 4. Hydrologic impacts shall be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices. 5. When siting new facilities, every effort shall be made to cross wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian area. 6. During repair or maintenance of facilities in a streambed, water may be temporarily diverted as long as the natural drainage patterns are restored after disturbance to minimize the impact of the disturbances and to help re-establish or enhance the native habitat. Erosion control during construction in a streambed in the form of intermittent check dams and culverts shall also be considered to prevent alteration to natural drainage pattern and prevent siltation. 7. Impact to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines. 8. During work on facilities, all trucks, tools, and equipment shall be kept on existing access roads or cleared areas, to the extent possible. 9. The CPUC-, USFWS-, and CDFW-approved biologist shall approve of an activity prior to working in any natural area where disturbance to habitat may be unavoidable. 10. Insulator washing shall be allowed from access roads if other applicable protocols in this mitigation measures are followed. 11. Brush clearing around facilities for fire protection shall not be conducted	CPUC verifies that SDG&E designs and implements activities to minimize new disturbance and erosion. CPUC ensures that the CPUC-, USFWS-, and CDFW-approved biologist approves of an activity prior to working in any sensitive natural area where disturbance to habitat may be unavoidable. CPUC verifies that SDG&E coordinates with ACOE for any temporary work in a streambed. CPUC verifies that SDG&E follows brush clearing protocols, protocols for notifying the USFWS (for ESA-listed plants) and CDFW (for CESA-listed plants) when a special-status plant species located within an area to be cleared for fire protection, and protocols for contacting the CPUC-, USFWS-, and CDFW-approved biologist to perform a pre-activity survey when vegetation trimming is planned in environmentally sensitive habitats areas or when previously unidentified dens, burrows, nests, or special-status plants are located on any project site after the pre-activity survey. CPUC verifies that flagged areas have been avoided and that reclamation has been properly implemented upon completion of work.	New disturbance, erosion on slopes, and off-side degradation from accelerated sedimentation are minimized due to the design and implementation of maintenance, repair and construction activities. Visual inspections are conducted on a regular basis. Erosion on access roads and other locations are minimized primarily with water bars. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques. Disturbance to riparian area are minimized by crossing wetland habitat perpendicular to the watercourse. Impact of disturbance to natural drainage pattern is minimized, re-established, or enhanced by restoring temporarily diverted water after repair or maintenance of facilities in a streambed. Alteration to natural drainage pattern and siltation will be prevented with intermittent check dams and culverts where necessary. Impacts to wetlands will be minimized by avoiding pushing	Prior to Construction - Notify the USFWS (for ESA-listed plants) and CDFW (for CESA-listed plants) 10 working days prior to activity Operation and maintenance	Entire project area	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
from January 15 through August 31 (to avoid the general bird nesting season) without prior approval by the CPUC-, USFWS-, and CDFW-approved biologist. The CPUC-, USFWS-, and CDFW-approved biologist shall make sure that the habitat contains no active nests, burrows, or dens prior to clearing. 12. In the event that a special-status plant species is located within the area required to be cleared for fire protection purposes, SDG&E shall notify the USFWS (for ESA-listed plants), and CDFW (for CESA-listed plants), in writing, of the plant's identity and location and of the proposed activity, which will result in a take of such plant. Notification shall occur ten working days prior to such activity, during which time USFWS or CDFW may remove such plant(s). If neither USFWS nor CDFW have removed such plant(s) with the ten working days following the notice, SDG&E may proceed to complete its fire clearing and cause a take of such plant(s) consistent with SDG&E's take coverage for the ESA- or CESA-listed plants. When fire clearing is necessary in instances other than around power poles, and the potential for impacts to special-status species exist, SDG&E shall follow the pre-activity survey and notification procedures in Mitigation Measure Biology-1c, above. Wire stringing shall be allowed year-round in sensitive habitats if the conductor is not allowed to drag on the ground or in brush and vehicles remain on access roads. 13. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes. 14. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the CPUC-, USFWS-, and CDFW-approved biologist, or used immediately to fill eroded areas. Cleared vegetation shall be hauled to a permitted disposal location. 15. The CPUC-, USFWS-, and CDFW-approved biologist shall be contacted to perform a pre-activity survey when vegetation trimming is planned in sensitive habitats. Whenever possible, trees in sensitive habitats such as native riparian, woodland, or scrub vegetation shall be scheduled for trimming in non-sensitive times (i.e., outside of breeding or nesting seasons). 16. No new facilities and activities shall be planned that would disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads shall be allowed to continue in areas containing vernal pool habitat, provided no such habitat located within these roads would be impacted by project activities. New construction of overhead infrastructure which spans vernal pool habitats shall be allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools. 17. If any previously unidentified dens, burrows, nests, or special-status plants are located on any project site after the pre-activity survey, the CPUC-, USFWS-, and CDFW-approved biologist shall be contacted. The CPUC-, USFWS- and CDFW-approved biologist shall determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc. 18. The CPUC-, USFWS-, and CDFW-approved biologist(s) shall conduct monitoring as recommended in the pre-activity survey report. At completion of work, the CPUC-, USFWS-, and CDFW-approved biologist(s) shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly		soil or brush into washes or ravines. Activities in sensitive natural area where disturbance to habitat may be unavoidable are approved by the agency-approved biologist. Brush clearing around facilities for fire protection is conducted only after the CPUC-, USFWS-, and CDFW-approved biologist has verified that no active nests, burrows, or dens are present in the habitat.			

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
implemented. Also at completion of work, the CPUC-, USFWS-, and CDFW-approved biologist(s) shall be responsible for removing all habitat flagging from the construction site. 19. The CPUC-, USFWS-, and CDFW-approved biologist(s) shall conduct checks on mowing procedures to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than four inches. 20. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected, or from which animals cannot be removed, shall be capped or otherwise covered at the end of each work day to avoid animal entrapment. Old piping or other supplies that have been left open shall not be capped until inspected and any species found in them allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by the CPUC-, USFWS- and CDFW-approved biologist. Refer to Mitigation Measure 1a, Item 10 for wildlife relocations. 21. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife is located in the trench or excavation, the CPUC, USFWS-, and CDFW-approved biologist(s) shall be called immediately to remove it if it cannot escape unimpeded. 22. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities shall be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour. 23. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey shall be conducted.					
Mitigation Measure Biology-1e: Maintenance of Access Roads. Maintenance of access roads shall consist of: 1. Repairing erosion by grading, adding fill, and compacting it. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after pre-activity surveys conducted by the CPUC-, USFWS-, and CDFW-approved biologist(s). 2. Controlling vegetation through grading, which shall be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of facility failure or fire hazard exists. The graded access road width shall not exceed 12 feet on straight portions (radius turns may be slightly wider). 3. Maintenance work on access roads shall not expand the existing road bed. 4. Material for filling in road ruts shall never be obtained from the sides of the road, which contain habitat, without approval from CPUC-, USFWS-, and CDFW-approved biologist.	CPUC verifies that SDG&E follows impact avoidance and minimization practices during maintenance of access roads.	Access roads are maintained following the impact avoidance and minimization practices identified in this measure.	Prior to construction and during Operation and Maintenance	Access roads	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Biology-1f: Construction of New Access Road Protocols. Construction of new permanent spur roads shall comply with the following: 1. New spur roads shall be designed in coordination with the wildlife agencies and preserve managers and priority shall be given to placement of spur roads in previously disturbed areas and areas which require the least amount of construction grading. 2. Construction of new access roads shall be allowed year-round, providing the soil is dry and no natural ponding has occurred. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by the CPUC-, USFWS-, and CDFW-approved biologist. If nesting birds are detected, appropriate avoidance and minimization recommendations, as described in Mitigation Measures Biology-7 and Biology-8, shall be followed.	CPUC verifies that SDG&E coordinates with wildlife agencies and that avoidance and minimization practices identified in this measure are implemented.	SDG&E coordinates with wildlife agencies for construction of new spur roads. New permanent spur roads are constructed following the impact avoidance and minimization practices identified in this measure.	Prior to construction	Permanent spur roads	SDG&E, CPUC, CDFW, USFWS
Mitigation Measure Biology-1g: Survey Work Protocols. SDG&E shall implement the follow measures during survey work: 1. Brush clearing for foot path or line-of-sight cutting shall not be allowed from February through September without prior approval from the CPUC-, USFWS-, and CDFW-approved biologist, who will ensure the brush clearing activity, does not adversely affect a special-status species or nesting birds. 2. SDG&E survey personnel shall keep vehicles on existing access roads. No clearing of brush shall be allowed from February through September without prior approval from the CPUC-, USFWS-, and CDFW-approved biologist, who will ensure the brush clearing activity, does not adversely affect a special-status species or nesting birds. 3. Hiking off roads or paths for survey data collection shall be allowed year round as long as other protocols are met.	CPUC verifies that SDG&E implements the impact avoidance and minimization measures for survey work according to this mitigation measure.	Impact avoidance and minimization measures for survey work are implemented according to this mitigation measure	Prior to construction	All work areas where survey work will occur	SDG&E, CPUC, CDFW, USFWS
Mitigation Measure Biology-2: Compensatory Mitigation for Special-Status Plants. All special-status plant populations shall be staked or flagged by a qualified biologist approved by the CPUC, USFWS, and CDFW if they fall within the limits of work. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. Impacts to special-status plant species shall be avoided to the extent feasible. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation per the direction of the USFWS and/or CDFW. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC. Off-site mitigation land shall be identified prior to the start of construction. The establishment of long-term land management and legal protection assurances must be completed within 12 months of construction start. Where salvage and relocation is demonstrated to be feasible and biologically preferred by the wildlife agencies, it shall be conducted pursuant to a CPUC-, USFWS-, and CDFW-approved salvage and relocation plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. The salvage and relocation plan shall also define the monitoring strategy with a minimum of annual monitoring for 5 years and until success criteria are met. Success criteria shall include a minimum of: • A surveyed population size count roughly equal to or greater than the number of individuals transplanted (This total may include both transplanted individuals that have survived as well as any additional supplemental plantings following the initial transplantation that have survived at least two growing seasons at the receiver site.),, • Less than 5 percent cover of invasive weeds within the restoration area, and • Eradication of any noxious invasive weeds.	CPUC verifies that SDG&E avoids impacts to special-status plants by staking or flagging all special-status plant populations; CPUC verifies that SDG&E provides compensatory mitigation for unavoidable impacts to special-status plants through the establishment of long-term land management and legal protection assurances or salvage/relocation; A salvage and relocation plan is prepared by SDG&E where feasible and biologically preferred and is approved by CDFW, USFWS, and CPUC and implemented by SDG&E.	Impacts to special-status plant species are avoided or minimized during construction. Long-term land management and legal protection assurances are established after start of construction. Agency-approved salvage and relocation plans are conducted where feasible and biologically preferred. All stakes, flagging, or fencing of special-status plant populations are removed after construction is complete.	Prior to construction – Salvage and relocation plans must be approved at least 30 days prior to construction and establishment of long-term land management and legal protection assurances must be completed within 12 months of construction start Post-construction – Stakes and flagging must be removed within 30 days after construction	Entire project area	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Any salvage and relocation plans must be approved by CDFW, USFWS, and CPUC at least 30 days prior to project construction.					
Mitigation Measure Biology-3: Weed Control Plan. SDG&E shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive, non-native species abatement. Developed land shall be excluded from weed control. Where SDG&E owns the property, the Weed Control Plan shall include specific weed abatement methods, practices, and treatment timing developed in consultation with the San Diego County Agriculture Commissioner's Office and the California Invasive Plant Council (Cal-IPC). On ROW easement on MCAS Miramar, the Weed Control Plan shall incorporate all appropriate and legal U.S. Marine Corps-stipulated regulations. The Weed Control Plan shall be submitted to MCAS Miramar for final authorization of weed control methods, practices, and timing prior to implementation of weed control on MCAS Miramar. The Weed Control Plan shall include the following: • A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW, as well as at all ancillary facilities associated with the project for weed populations that: (1) are considered by the San Diego County Agriculture Commissioner or MCAS Miramar (for ROW on MCAS Miramar) as being a priority for control, and (2) aid and promote the spread of wildfires. These populations shall be mapped and described according to density and area covered. These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with the San Diego County Agriculture Commissioner's Office and Cal-IPC, or MCAS Miramar, as appropriate. • A pre-construction weed inventory shall also be conducted by surveying areas that will be directly impacted by the project for weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory (online) Database (Cal-IPC 2006 [and 2007 update]; http://www.cal-ipc.org/ip/inventory/index.php) or are weed species of concern to MCAS Miramar (for ROW on MCAS Miramar). These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC and MCAS Miramar (for treatment in ROW on MCAS Miramar). • Weed control treatments shall include all legally permitted methods to be used in the following prioritized order: preventative, manual, mechanical, and chemical. All treatments shall be applied with the authorization of the San Diego County Agriculture Commissioner and MCAS Miramar, as appropriate. 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) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, San Diego County Agriculture Commissioner, Cal-IPC, and MCAS Miramar, as appropriate, with the goal of controlling populations before they start producing seeds. For the lifespan of the project (i.e., as long as the project is physically present), long-term measures to control the introduction and spread of weeds in the project area shall be taken as follows. – From the time construction begins until 2 years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the	A comprehensive, adaptive Weed Control Plan is prepared by SDG&E according to the provisions identified in this mitigation measure and is approved by CPUC and MCAS Miramar and implemented by SDG&E. CPUC verifies that SDG&E implements the adaptive Weed Control Plan.	A comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive, non-native species abatement is implemented. Post-construction surveys are conducted and weed treatment is applied where necessary.	Prior to construction – Preparation of Weed Control Plan and pre-construction weed inventory During construction – Implementation of Weed Control Plan Operation and Maintenance– Implementation of Weed Control Plan	Entire project area	SDG&E, CPUC, MCAS Miramar

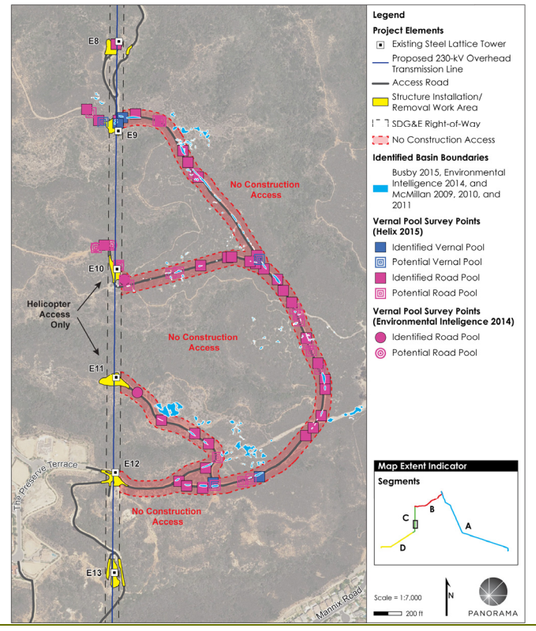
APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
survey areas described above. After this time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis, unless otherwise approved by the PCA, the San Diego County Agriculture Commissioner, Cal-IPC, and MCAS Miramar, as appropriate. – During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall be certified weed free by the San Diego County Agriculture Commissioner's Office.					
Mitigation Measure Biology-4: Compensatory Mitigation for Vernal Pools. SDG&E shall implement the following measures to avoid and minimize impacts to San Diego and vernal pool fairy shrimp and their potential vernal pool and road pool habitats: • SDG&E shall presume presence of San Diego and vernal pool fairy shrimp in all vernal pools and road pools within and outside of the transmission line Segments C and D BSA and avoid the access roads with these pools to the maximum extent practicable. • If complete avoidance is not feasible, SDG&E may perform a survey of the pools during the wet season, identify the number and size of pools, and record whether they support indicator vernal pool plant species. • All impacts to vernal pools, with or without special-status species present, shall be mitigated at a 3:1 ratio. Mitigation may occur on-site provided a sufficient number of degraded pools exist in the vicinity and SDG&E receives approval from CPUC, USFWS, and CDFW for restoration and/or enhancement of the degraded pools. Otherwise, mitigation shall be implemented off-site at a pre-approved vernal pool restoration area. Mitigation credits, as approved by CPUC, CDFW, and USFWS, may be accumulated and used through advance creation, restoration, and enhancement of vernal pool basin area. The areas pre-approved by CPUC, USFWS, and CDFW for creation, restoration, and/or enhancement of vernal pool basin area shall be of high quality (e.g., Carmel Mesa or Otay Mesa) and shall support special-status species impacted by the project. Pre-approved vernal pool mitigation areas shall be managed and monitored pursuant to a Management Plan approved by CPUC, CDFW, and USFWS. If SDG&E does not mitigate at a pre-approved vernal pool restoration area, then CPUC, CDFW, and USFWS concurrence on an acceptable mitigation site is required prior to any impacts to vernal pools. Recognizing that restoration efforts may vary somewhat, SDG&E shall prepare a detailed vernal pool restoration plan based on a generalized approach for vernal pool restoration which has been previously approved by USFWS and CDFW in SDG&E's NCCP. If further refinements to this generalized approach are necessary, CPUC, USFWS, and CDFW will respond to the restoration plan within 30 days. • No impacts to vernal pools shall occur until adequate mitigation for impacts to vernal pools and special-status vernal pool species has been secured off-site or a restoration plan has been approved by CPUC, CDFW, and USFWS for any mitigation outside of pre-approve vernal pool restoration areas. • No construction access shall be allowed at any time on the access road in transmission line Segment C between poles E9 and E12 as show in Figure 4.1.4 due to the substantial number of existing vernal pool and road rut pools present within and immediately adjacent to the access road. Orange construction fencing shall be installed at the end points of the restricted access. Temporary signage shall be posted on the fencing stating "No construction access permitted." The no construction access area shall be monitored by a CPUC-, USFWS-, and CDFW-approved biologist to ensure no vehicle access or entry occurs throughout the duration of construction. • Rather than assume listed fairy shrimp presence, SDG&E may conduct a USFWS protocol, wet season survey of the vernal pools and road rut pools for listed fairy	CPUC, CDFW, and USFWS verify that SDG&E either implements a survey of vernal pools with a detailed Vernal Pool Plan with compensatory mitigation approved by CPUC, CDFW, and USFWS or conducts a USFWS protocol, wet season survey of the vernal pools and road rut pools for listed fairy shrimp and provide results of survey to CPUC, CDFW, and USFWS. CPUC verifies that SDG&E avoids vernal pools to the maximum extent practicable. CPUC verifies that SDG&E installs orange construction fencing to restrict access to access road in transmission line Segment C between poles E9 and E12 as show in Figure 4.1.4.	Impacts to San Diego fairy shrimp, vernal pool fairy shrimp, and potential vernal pool and road pool habitats are minimized, avoided, or compensated for using compensatory mitigation. Access to access road in transmission line Segment C between poles E9 and E12 is blocked.	Prior to Construction – Survey of vernal pools and Vernal Pool Plan or USFWS surveys During construction – Restrict access to access roads	Vernal pools in the Proposed Project area and access road in transmission line Segment C between poles E9 and E12 as show in Figure 4.1.4	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency

shrimp. The survey shall be conducted by an individual that holds a recovery permit for San Diego and vernal pool fairy shrimp pursuant to section 10(a)(1)(A) of the ESA. If these surveys are conducted, impacts to vernal pools (with or without fairy shrimp), and road rut pools supporting listed fairy shrimp shall require mitigation through an off-site approved vernal pool restoration area or restoration plan as described above, and no mitigation would be required for road ruts pools that do not support special status species

- Where access roads containing pools are used and the roads are not first repaired under the scenarios listed above, the following measures shall apply during project construction and operation/maintenance:
  - The delineation of all pool boundaries (i.e., the pool exclusion/buffer zone noted in APM BIO-4) shall be staked/flagged prior to the start of work.
  - A qualified biological monitor (see APM BIO-4), who holds a recovery permit for San Diego and vernal pool fairy shrimp pursuant to section 10(a)(1)(A) of the ESA, shall be present to monitor access road use.
  - Helicopters shall be used where vehicle access is restricted by the exclusion zone(s) of the delineated pool(s) as determined by the qualified biological monitor.
  - The qualified biological monitor shall have the authority to halt any project activity that is deemed to be impacting, or potentially impacting, a pool. The qualified biological monitor shall consult with the work supervisor, and if necessary, the USFWS to resolve the issue.
  - All staking/flagging shall be removed by the biological monitor following completion of work.
  - A minimum of 150 feet shall be provided between pools and all staging, parking, and storage areas.

Figure 4.1-4 Construction Access Road Restrictions within Segment C of the Proposed Project



APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Biology-5: Pre-Activity Surveys for QCB. SDG&E shall conduct a pre-activity survey for QCB in all project work areas and along all project access roads within the current USFWS survey area for QCB (USFWS 2014b) to determine areas of suitable QCB habitat. In areas where no suitable QCB habitat is found during the pre-activity survey, construction may occur at any time, consistent with the HCP for the QCB (i.e., the operational protocols in the 1995 Subregional NCCP), and no QCB mitigation shall be required. If suitable QCB habitat is present, and construction cannot avoid the suitable habitat, then one of the following shall occur: • A USFWS protocol, adult, flight-season survey for the QCB shall be conducted by an individual that holds a recovery permit for the QCB pursuant to section 10(a)(1)(A) of the ESA. The survey shall be conducted within suitable QCB habitat areas to determine whether or not the habitat is occupied by QCB. In areas where there is no QCB detected, construction activities may proceed without further review, and the suitable QCB habitat shall be mitigated at a 1:1 ratio per the methods in the HCP for the QCB. • If QCB are detected, efforts shall be made to avoid impacts to the occupied habitat. Impacts to occupied habitat shall be mitigated at a 2:1 ratio per the methods in the HCP for the QCB. • If the timing of the project will not allow for an adult, flight-season surveys to determine the presence or absence of QCB, presence of QCB will be assumed in all suitable habitats, and mitigation for impacts shall occur at a 2:1 ratio per the methods in the HCP for the QCB. • If impacts to occupied QCB habitat (as determined by surveys or where QCB presence is assumed) are greater than one acre, SDG&E shall confer with USFWS to ensure that the activity's impact will not cause the permanent loss of QCB habitat.	CPUC verifies that SDG&E conducts pre-activity surveys for QCB and that SDG&E implements one of the three measures in this mitigation measure if construction cannot avoid suitable QCB habitat.	Suitable QCB habitat is mapped and mitigation is implemented to compensate for impacts to suitable QCB habitat	Prior to construction	All project work areas and along all project access roads within the current USFWS survey area for QCB (USFWS 2014b)	SDG&E, CPUC
Mitigation Measure Biology-6: Compensatory Mitigation for Impacts to Habitat. SDG&E shall restore temporarily impacted areas to pre-construction conditions following construction and/or shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Restoration of some vegetation communities in temporarily impacted areas may not be possible if those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation, for example. In those instances, the mitigation shall consist of off-site acquisition and preservation of the vegetation community. Restoration of temporarily impacted areas involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, maintaining (i.e., weeding, replacement planting, supplemental watering, etc.), and monitoring the restored area for a period of 5 years and until success criteria are met. SDG&E shall prepare a Habitat Restoration Plan that shall be subject to approval by the CPUC, USFWS, CDFW, and MCAS Miramar (for restoration on MCAS Miramar) prior to habitat impacts. Required mitigation ratios are provided by habitat type in Table 4.1-10. In cases where the impacts to sensitive vegetation communities occur in the City of San Diego MHPA, the mitigation shall also occur in the MHPA. The Habitat Restoration Plan shall also identify the need for reintroduction and/or increasing MSCP-covered species populations.	A Habitat Restoration Plan, Habitat Acquisition Plan, and Habitat Management Plan are prepared by SDG&E according to the provisions identified in this mitigation measure, are approved by CPUC, CDFW, USFWS, and MCAS Miramar, and implemented by SDG&E. CPUC verifies that SDG&E restores temporarily impacted areas and purchases/dedicates suitable habitat for preservation for permanently impacted areas according to the specifications, including the mitigation ratios and success criteria in this mitigation measure. CPUC verifies that SDG&E monitors revegetation for a period of 5 years and until success criteria are met.	Temporarily impacted areas are restored to pre-construction conditions and permanent impacts are compensated with the purchase of off-site habitat for preservation.	Prior to construction - Submit the Habitat Acquisition Plan to CPUC, CDFW, and USFWS at least 120 days prior to construction; Submit the Habitat Restoration Plan and Habitat Management Plan prior to construction Post-Construction – Monitor revegetation	Temporarily and permanently impacted habitats and off-site mitigation parcels	SDG&E, CPUC, CDFW, USFWS, MCAS Miramar

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency

Table 4.1-10 Required Habitat Mitigation Ratios

Vegetation Community	Mitigation Ratio
Diegan Coastal Sage Scrub	
Diegan coastal sage scrub	1:1
Diegan coastal sage scrub in the MHPA	1:1
Diegan coastal sage scrub-Disturbed	1:1
Diegan coastal sage scrub-Disturbed in the MHPA	1:1
Diegan coastal sage scrub-Revegetated	1:1
Diegan coastal sage scrub-Revegetated in the MHPA	---
Coastal Sage Scrub	
Coastal sage-chaparral scrub	0.5:1
Coastal sage-chaparral scrub in the MHPA	1:1
Chaparral	
Chamise chaparral	0.5:1
Chamise chaparral in the MHPA	1:1
Chamise chaparral-disturbed	0.5:1
Chamise chaparral-disturbed in the MHPA	1:1
Scrub oak chaparral	1:1
Scrub oak chaparral in the MHPA	2:1
Southern mixed chaparral	0.5:1
Southern mixed chaparral in the MHPA	1:1
Southern mixed chaparral-disturbed	0.5:1
Southern mixed chaparral-disturbed in the MHPA	1:1
Grassland	
Native grassland	1:1
Native grassland in the MHPA	2:1
Non-native grassland	0.5:1
Non-native grassland in the MHPA	---
Freshwater Marsh	
Freshwater marsh	---

APM/Mitigation Measure		Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Vernal Pool						
San Diego Mesa Vernal Pool	3:1					
Riparian						
Southern riparian scrub	---					
Mule fat scrub	---					
Mulefat scrub in MHPA	---					
Southern willow scrub	---					
Southern willow scrub in MHPA	---					
Tamarisk scrub in MHPA	---					
Southern coast live oak riparian forest	---					
Southern coast live oak riparian forest in MHPA	---					

The Restoration Plan shall include the following performance criteria:

- Percent cover and composition shall be similar to the conditions of a nearby reference site, defined as variation of no more than 10 percent absolute cover from the reference site cover and species composition condition.
- Maintenance and monitoring for restoration shall be for a minimum of 5 years, even if established success criteria are met before the end of 5 years. Compensation planting areas shall be monitored eight times in Year 1, six times per year in Years 2 and 3, and 4 times per year in Years 4 and 5.
- Compensation planting areas shall be monitored for invasive plants in the first 5 years following replanting. Invasive plant monitoring shall occur eight times in Year 1, six times per year in Years 2 and 3, and 4 times per year in Years 4 and 5. If invasive plants are found during the 5-year monitoring period, they shall be removed as necessary to support meeting the cover and vegetation composition success criteria.
- If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the 5-year period until the criteria are met or unless otherwise approved by the CPUC.
- Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 4:1 shall be acquired and preserved off-site.

For areas where habitat restoration cannot meet mitigation requirements, as determined by the Habitat Restoration Specialist in coordination with CPUC, USFWS, CDFW, and MCAS Miramar (for restoration on MCAS Miramar), off-site purchase and dedication of habitat (or as otherwise prescribed by MCAS Miramar for restoration on MCAS Miramar) shall be provided at the mitigation ratios provided in Table 4.1-10.

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Parcels/Habitat Management Plans. All off-site mitigation parcels shall be approved by the CPUC, USFWS, CDFW and MCAS Miramar (as applicable) and must be acquired, or their acquisition must be assured, before the line is energized. To demonstrate that such parcels will be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 120 days prior to any ground disturbing activities for CPUC, USFWS, CDFW, and MCAS Miramar (as applicable) review and approval. The Habitat Acquisition Plan shall include, but shall not be limited to: • Legal descriptions and maps of all parcels to be acquired; • Schedule that includes phasing relative to impacts; • Documentation demonstrating that the mitigation parcel(s) provides high quality habitat roughly equivalent in composition to the habitats that would be impacted by the project and at appropriate acreages; • Timing of conservation easement recording; • Initiation of habitat management activities relative to acquisition; and • Assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities. A Habitat Management Plan shall be prepared by a biologist and approved by the CPUC, USFWS, CDFW, and MCAS Miramar (as applicable) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by these agencies (as applicable) prior to the initiation of any vegetation disturbing activities. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to: • Legal descriptions of all mitigation parcels approved by the CPUC, USFWS, CDFW, and MCAS Miramar (for mitigation parcels to be acquired for MCAS Miramar impacts) • Baseline biological data for all mitigation parcels • Designation of a land management entity approved by the CPUC, USFWS, CDFW, and MCAS Miramar (for mitigation parcels to be acquired for MCAS Miramar impacts) to provide in-perpetuity management • A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan • Designation of responsible parties and their roles (e.g., provision of endowment by SDG&E to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity) • Management specifications including, but not limited to, regular biological surveys to compare with the baseline data; invasive, non-native species control; fence/sign replacement or repair; public education; trash removal; and annual reports to CPUC, USFWS, CDFW, and MCAS Miramar (for mitigation parcels to be acquired for MCAS Miramar impacts)					
Mitigation Measure Biology-7: Mitigation for Bird Species. This measure applies to all work areas in which any construction-related activities must be conducted during the nesting bird season (generally between January 15 and August 31, but may be earlier or later depending on species, location, and weather conditions). ***Nesting Bird Survey Requirements***. If work is scheduled to occur during the avian nesting season, nesting bird surveys shall be conducted according to the following provisions: 1. Nest surveys shall occur within 48 hours prior to the start of ground-disturbing construction or vegetation trimming or removal activities. If there is no work in an area for 7 days, it shall be considered a new work area if construction, vegetation trimming, or vegetation removal begins again. 2. Surveys shall be conducted with sufficient survey duration and intensity of	Nesting bird surveys are performed by SDG&E prior to construction and CDFW, USFWS, and CPUC review and approve the survey results prepared by SDG&E. CPUC verifies that SDG&E establishes buffers around nesting birds as described in this mitigation measure, approves or does not approve buffer reduction requests, implements specific requirements for coastal California gnatcatcher and least Bell's vireo	Nesting bird survey reports document that all requirements are fulfilled. Buffers are established and maintained. Monthly reports include all necessary information, including GIS data of nest locations and exclusion buffers. Final reports include all	Prior to Construction - Surveys during the nesting season During construction – Monitoring and monthly reports Post-construction – Final reports	Applies to all work areas in which any construction-related activities are conducted	SDG&E, CPUC, CDFW, USFWS

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
effort necessary for the identification of active nests, which is defined as once birds begin constructing, preparing, or using a nest for egg-laying. A nest is no longer an "active nest" if abandoned by the adult birds or once fledglings are no longer dependent on the nest". Surveys shall include nests of protected species within vegetation identified for removal and/or pruning, and within a the following buffers of active work areas: 1-mile buffer for golden eagle, 0.5-mile buffer for Swainson's hawk, 0.25-mile buffer for white-tailed kite and 500-foot buffer for other avian and raptor species. 3. Surveys shall be conducted during locally appropriate dates for nesting seasons determined in consultation with the USFWS and CDFW; note that generally the season is between January 15 and August 31 but may be earlier or later depending on species, location, and weather conditions. Species-specific nesting seasons for some species are identified below. 4. The surveys shall be conducted by a CPUC, USFWS-, and CDFW-approved qualified biologist. 5. Survey results shall be provided to CPUC, USFWS, and CDFW prior to initiating construction activities. 6. Work areas within which significant noise is not generated, such as work performed manually, by hand or on foot, and/or that would not cause significant disturbances to nesting birds (e.g., operating switches, driving on access roads, normally occurring activities at substations, and activities at staging and laydown areas) do not need to be surveyed prior to use. None of these activities shall result in physical contact with a nest. ***Avoid Impacts on Nesting Birds***. During the nesting season (generally between January 15 and August 31) raptor nests that are located within a 500-foot buffer from a work location and a 1-mile buffer for golden eagle and 0.5-mile buffer for Swainson's hawk, shall be evaluated by a CPUC-, USFWS-, and CDFW-approved qualified biologist to determine whether the raptor nest is active. No trees with active raptor nests shall be removed during nesting season. No additional measures shall be implemented if active nests are more than the following distances from the nearest work areas: (a) 1 mile for golden eagle, (b) 0.5 mile for Swainson's hawk, (c) 0.25 mile for white-tailed kite, (d) 500 feet for raptors, Coastal California gnatcatcher, and least bell's vireo, (e) 250 feet for passerine birds in open space areas, or (f) 150 feet for common (non-special-status) passerine birds in residential, commercial, and industrial areas. Buffers shall not apply to construction-related traffic using existing roads where the use of such roads is not limited to project-specific use (i.e., county roads, highways, farm roads, or other private roads). As appropriate, exclusion techniques may be used for any construction equipment that is left unattended for more than 24 hours to reduce the possibility of birds nesting in the construction equipment. An example of an exclusion technique is covering equipment with tarps. ***Buffer Reduction***. The specified buffers from nesting birds may be reduced on a case-by-case basis if, based on compelling biological or ecological reasoning (e.g., the biology of the bird species, concealment of the nest site by topography, land use type, vegetation, level of project activity, and level of pre-existing disturbance on site), it is determined by a CPUC-, USFWS-, and CDFW-approved qualified biologist that implementation of a specified smaller buffer distance will still avoid nest abandonment and failure. Requests to reduce standard buffers must be submitted to CPUC's independent biologist for review. Requests to reduce buffers must include: • Species • Location • Pre-existing conditions present on site • Description of the work to be conducted within the reduced buffer	according to the specifications in this mitigation measure, implements collision-reducing techniques for transmission line, and monitors nests as necessary. CDFW, USFWS, and CPUC review and approve GIS data, monthly reports, and final reports prepared by SDG&E after each nesting season.	necessary information. Construction avoids project-related "take and ensures compliance with applicable laws protecting bird species.			

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
• Size and expected duration of proposed buffer reduction • Reason for the buffer reduction • Name and contact information of the CPUC-, USFWS-, and CDFW-approved qualified biologist(s) who requested the buffer reduction and will conduct subsequent monitoring • Proposed frequency and methods of monitoring necessary for the nest given the type of bird and surrounding conditions CPUC's independent biologist shall respond to SDG&E's request for a buffer reduction (and buffer reduction terms) within 1 business day; if a response is not received, SDG&E may proceed with the buffer reduction until CPUC's independent biologist can review and approve or deny the buffer reduction request. If SDG&E proceeds with a reduced buffer, nests shall be monitored on a daily basis during construction activities. If the buffer reduction request is denied, or if the qualified biologist determines that the nesting bird(s) are not tolerant of project activity, the specified buffer(s) listed above in this measure shall be implemented. Non-special-status species found building nests within the work areas after specific project activities begin may be tolerant of that specific project activity; however, the CPUC-, USFWS-, and CDFW-approved qualified biologist shall implement an appropriate buffer or other appropriate measures to protect the nest after taking into consideration the position of the nest, the bird species nesting on site, the type of work to be conducted, and duration of the construction disturbance. In these cases, the proposed buffer or other measures must be approved by CPUC's independent biologist through the buffer reduction process outlined in this measure, if buffers are less than those specified in this measure. These nests shall be monitored on a daily basis and only during construction activities (no monitoring required during periods when no work is conducted) by a qualified biologist until the qualified biologist has determined that the young have fledged or construction ends within the work area (whichever occurs first). If the qualified biologist determines that the nesting bird(s) are not tolerant of project activity, the buffer outlined above in this measure shall be implemented. ***Specific Requirements for Coastal California Gnatcatcher and Least Bell's Vireo.*** Where there is potential nesting habitat for the coastal California gnatcatcher or least Bell's vireo within or adjacent to the MHPA, construction or operation/maintenance noise that exceeds the hourly average threshold of 60 decibels shall be avoided during these species' breeding seasons as follows: coastal California Gnatcatcher March 1 through August 15, and least Bell's vireo March 15 through September 15. If avoidance is not possible during the breeding season, SDG&E shall work with a qualified acoustician approved by the CPUC, USFWS, and CDFW to develop and implement noise attenuation measures. *Avian Protection on Power Lines*. The project shall include collision-reducing techniques for transmission lines (based on Reducing Avian Collisions with Power Lines: The State of the Art in 2012; Avian Power Line Interaction Committee [APLIC] 2012). ***Monitoring and Reporting.*** All nests with a reduced buffer shall be monitored on a daily basis during construction activities by a CPUC-, USFWS-, and CDFW-approved qualified biologist until the qualified biologist has determined that the young have fledged or until one week after construction ends within the reduced buffer/work area (whichever occurs first). Nest locations and exclusion buffers shall be mapped (using geographic information systems [GIS]) for all nests identified. This information shall be maintained in a database and shall be provided to CPUC, CDFW, and USFWS. A monthly written report shall be submitted to CPUC, CDFW, and USFWS for construction within a reduced buffer and shall include the following: information included in buffer reduction requests, work conducted within the work site, duration of work activities and related buffer reduction, information on nest success (eggs, young, and adults). No avian reporting shall be required for					

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
construction occurring outside of the nesting season and if construction activities do not occur within a reduced buffer during any calendar month. A final report shall be submitted to CPUC, CDFW, and USFWS at the end of each nesting season summarizing all avian-related monitoring results and outcomes for the duration of project construction. Nests located in areas of existing human presence and disturbance, such as in yards of private residences, or within commercial and or industrial properties, are likely acclimated to disturbance and do not need to be monitored, as determined by the CPUC-, USFWS-, and CDFW-approved qualified biologist and approved by CPUC's independent biologist.					
Mitigation Measure Biology-8: Burrowing Owl Monitoring and Mitigation Plan. SDG&E shall prepare a Burrowing Owl Monitoring and Mitigation Plan (BOMMP) consistent with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). SDG&E shall submit the Draft BOMMP to CDFW and CPUC. SDG&E shall be required to obtain approval from CDFW on the BOMMP prior to construction. SDG&E shall provide the approved BOMMP to the CPUC 30 days prior to construction. In accordance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) and CDFW-approved BOMMP, SDG&E shall conduct a pre-construction take avoidance survey for the burrowing owl prior to initiating ground disturbance activities. In areas where owl presence is not found, construction may proceed without further mitigation. If western burrowing owl occupancy on site is confirmed during pre-construction take avoidance surveys, SDG&E shall implement the CDFW-approved Burrowing Owl Monitoring and Mitigation Plan in coordination with CDFW.	A BOMMP is prepared by SDG&E consistent with the CDFW Staff Report on Burrowing Owl Mitigation and is approved by CDFW and CPUC; SDG&E conducts pre-construction take avoidance survey and implements the BOMMP. CPUC verifies that SDG&E implements the BOMMP.	Draft BOMMP is approved by CDFW. Pre-construction take avoidance surveys are performed. Measures of BOMMP are implemented in areas where necessary.	Prior to Construction – Approved BOMMP is provided to CPUC 30 days prior to construction During construction – BOMMP is implemented	All areas with ground disturbance activities	SDG&E, CPUC, CDFW
Mitigation Measure Biology-9: San Diego Desert Woodrat Mitigation. A CPUC-approved qualified biologist shall conduct a preconstruction survey to identify potential San Diego desert woodrat houses within the project work areas and within 5 feet of the edge of the work areas to avoid direct take of woodrats. All woodrat houses shall be documented and reported through the MMCRP. Woodrat houses found within the work site or within 5 feet from a work site shall be flagged or fenced for avoidance. If impacts to a woodrat house located within a work site are unavoidable, a CPUC-approved qualified biologist, prior to construction and outside of the breeding season (April through June), shall dismantle the house by hand, removing the materials layer by layer to allow for adult woodrats to escape. If young are present and found during the disassembling process, the CPUC-approved qualified biologist shall leave the site for at least 24 hours to allow for the rats to relocate their young on their own. This step shall be repeated as needed until the young have been relocated by the parent woodrats. Once the nest is vacant, the disassembly process shall be completed and the nest sticks shall be collected and moved to another suitable nearby location to allow for nest reconstruction. Piles of cut vegetation/slash shall be retained near the work site prior to nest dismantling to provide refuge for woodrats that may become displaced.	CPUC verifies that SDG&E conducts a preconstruction survey for woodrat houses according to the specification in this mitigation measure, documents San Diego desert woodrat houses in the MMCRP, and implements the appropriate measures (flagging and dismantling) for San Diego desert woodrat houses.	Impacts to San Diego desert woodrat are avoided by performing preconstruction surveys and avoiding or dismantling San Diego desert woodrat houses	Prior to Construction	Entire project area	SDG&E, CPUC
Mitigation Measure Biology-10: Mitigation for Bat Species. Prior to construction, suitable bat habitat shall be assessed by a CPUC- and CDFW-approved, qualified biologist in trees within a 50-foot buffer of active work areas and in any structures with suitable bat roosting habitat within a 100-foot buffer of active work areas (e.g., bridges). If an active roost is found in a tree or structure, the approved biologist shall define an appropriate limited or no-work exclusion buffer surrounding the roost based on the bat species, numbers, and roost type (i.e., individuals, small group, or potential maternal colony), the type of work to occur, and the duration of the work-related disturbance. The limited work or exclusion areas shall remain in effect until the approved biologist determines that the work would no longer be a disturbance to the roost. A reduction in the buffer may be approved by the qualified biologist if there is a change in the type of work to be conducted. The limited work or exclusion buffer shall not apply to construction-related traffic using existing roads where the use of such roads is not limited to project-specific use (i.e., county roads, highways, farm roads, or other private roads) and shall not apply if the	CPUC verifies that SDG&E conducts appropriate survey for suitable bat habitat, implements limited or no-work exclusion buffers according to the specifications in this mitigation measure, and documents and reports all bat roosts through the MMCRP.	Limited and no-work areas are established and maintained. Monitoring reports fulfill all requirements. Bats and roosting habitat are not disturbed.	During Construction	Areas of suitable bat habitat	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
roost(s) is/are located in a residential, commercial, or industrial area. The boundaries of the limited or no work buffer shall be clearly marked by the approved biologist. The approved biologist shall inspect construction and roost sites when construction is occurring to ensure the integrity of the limited or no-work buffer and to ensure that the size of the buffer is adequate based on site conditions and construction-generated noise, dust, etc. All bat roosts documented during pre-construction surveys shall be reported through the MMCRP.					
Mitigation Measure Biology-11: Reseeding for Fires. Should a fire occur and be determined by the CPUC's Consumer Protection and Safety Division or the California Department of Forestry and Fire Protection (Cal Fire) to be caused by the project, SDG&E shall reseed all natural areas — both public and private — that are burned as a result of the project-caused fire. Reseeding shall continue until the native vegetation community is reestablished. For example, arid chaparral requires a minimum 10-year period to reestablish an adequate seed bank and thereby resist vegetation type conversion. A reseeding plan shall be developed with input from Cal Fire and CPUC based on a native seed mix. Seeds shall be raked into the soil to avoid seed consumption, and reseeding shall be carried out once to coincide with the rainy season (October 1 through April 1) to increase the likelihood of germination success. SDG&E shall provide a written report documenting all reseeding activities to the CPUC. SDG&E shall make a good faith effort to obtain approval to reseed on private lands, as appropriate, and documentation of this good faith effort shall be submitted to the CPUC upon request. Specific reseeding requirements stipulated in this mitigation measure shall be subject to approval and modification by any public land-owning agency.	CPUC verifies that SDG&E reseeds all natural areas that are burned as a result of a project-caused fire; A reseeding plan is developed by SDG&E with input from Cal Fire and CPUC and is approved by CPUC and implemented by SDG&E; A report documenting all reseeding activities and good faith efforts to obtain approval to reseed on private lands is prepared by SDG&E and approved by CPUC.	All natural areas that are burned as a result of a project-caused fire are reseeded according to the specifications in this mitigation measure	During Construction – Reseeding Plan Post-construction and Operation and Maintenance – Implementation of Reseeding Plan	Entire project area	SDG&E, CPUC, Cal Fire
Cultural Resources					
APM CUL-1: Archaeological Monitoring. A qualified archaeologist would attend preconstruction meetings, as needed, and a qualified archaeological monitor would monitor activities in the vicinity of all known cultural resources within the Proposed Project area. The requirements for archaeological monitoring would be noted on the construction plans. The archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to Archaeological Resource Management Reports guidelines.	CPUC verifies that SDG&E conducts a cultural resources training program, informs qualified archaeologist of preconstruction meetings, and provides requirements for archaeological monitoring in the construction plans.	Archaeological monitor will be informed by attending meetings and surveying the Proposed Project area to provide an accurate archaeological monitoring results report.	Prior to construction – Conduct training program and review construction plans	Entire project area	SDG&E, CPUC
APM CUL-2: Avoidance of Environmentally Sensitive Areas. Known cultural resources that will be avoided would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to avoid disturbance of these areas.	CPUC verifies that SDG&E demarcates known cultural resources as Environmental Sensitive Areas and avoids disturbing Environmentally Sensitive Areas.	Known cultural resources will remain undisturbed.	During construction	Entire project area	SDG&E, CPUC
APM CUL-3: Procedure upon Discovery of Resources. In the event that cultural resources are discovered, the archaeologist would have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. If the resource was discovered on MCAS Miramar, the base archaeologist would also be contacted by SDG&E. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program would be prepared and carried out to mitigate impacts.	CPUC verifies that SDG&E follows the procedures identified in this mitigation measure if a cultural resource is discovered, including halting work and coordinating with MCAS Miramar as necessary.	Divert or temporarily suspend ground disturbing activities if potentially significant cultural resources are encountered.	During construction	Entire project area	SDG&E, CPUC, MCAS Miramar (potentially)

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
APM CUL-4: Analysis of Cultural Remains. All collected cultural remains would be cataloged, and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.	CPUC verifies that SDG&E properly analyzes and processes all collected cultural remains.	All collected cultural remains and faunal remains are properly catalogued, analyzed and curated with appropriate institutions.	During construction	Entire project area	SDG&E, CPUC
APM CUL-5: Monitoring Report. An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, would be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any new cultural sites or features encountered would be recorded with the South Central Information (SCIC).	CPUC verifies that SDG&E submits archaeological monitoring results report to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program and that new cultural sites or features are recorded with SCIC.	All monitoring programs will be included in an archaeological monitoring results report. New cultural sites and features are recorded with the SCIC.	During construction	Entire project area	SDG&E, CPUC
APM CUL-6: Native American Monitoring. Native American monitoring may be implemented if transmission line construction has the potential to impact identified and mapped traditional locations or places. The role of the Native American monitor shall be to represent tribal concerns and communicate with the tribal council. Appropriate representatives will be identified based on the location of the identified traditional location or place.	CPUC verifies that SDG&E includes an appropriate representative as a Native American monitor during construction.	A Native American monitor is present during construction.	During construction	Entire project area	SDG&E, CPUC
APM CUL-7: Discovery of Human Remains. If human remains are encountered during the course of construction, SDG&E staff would halt work in the vicinity of the find and would implement the appropriate notification processes as required by law (California Health and Safety Code 7050.5, Public Resource Code 5097.98-99, and NAGPRA).	CPUC verifies that SDG&E work is halted if human remains are countered and that appropriate notification processes as required by law are implemented.	Proper legal procedures are carried out in the event that human remains are found.	During construction	Entire project area	SDG&E, CPUC
Mitigation Measure Cultural Resources-1: Cultural Resources Monitoring, Evaluation, and Treatment of Resources. Archaeological monitoring shall be conducted during ground disturbing activities (i.e., grubbing, brushing, vegetation clearing, excavation, grading, etc.) in areas with high potential to discover historical and archaeological resources, as mapped on Figures 4.3-1 through 4.3-7. Monitoring teams shall work under the direct supervision of a CPUC-approved cultural resources specialist/archaeologist. Monitoring teams shall include one qualified archaeological monitor and one Native American monitor. In the event that ground disturbing activities simultaneously occur in multiple locations, a monitoring team shall be required at each location. If previously undiscovered resources are identified during construction, all construction activities within 50 feet (15 meters) of the resource shall halt, and the monitoring team shall flag-off the area and notify the equipment operator, on-site supervisor, and the CPUC-approved cultural resources specialist/archaeologist of the finds. Construction efforts shall be temporarily diverted, and the CPUC-approved cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area. If the resource meets the criteria for either a historical or unique archaeological resource, or both, work shall remain halted within 50 feet (15 meters) of the area of the find, and the CPUC-approved cultural resources specialist/archaeologist shall consult with CPUC staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). Preservation in place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources and shall be required to mitigate impacts to previously undiscovered resources. Other methods of mitigation, described below, shall only be used if the CPUC-approved cultural resource specialist/ archaeologist determines the method would provide equivalent or superior mitigation of the impacts to the resource. The alternative methods of mitigation may include data recovery and documentation of the information	CPUC verifies that SDG&E conducts archeological monitoring as described in this mitigation measure, that construction is halted upon discovery of previously undiscovered cultural resources, and that protocols for evaluating an archeological resource are followed.	Archeological monitoring is conducted during ground disturbing activities and proper measures identified in this mitigation measure are implemented if a previously undiscovered cultural resource is uncovered during construction	During construction	Project areas with ground disturbance	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
contained in the site to answer questions about local prehistory (see Mitigation Measures Cultural Resources-3 and Cultural Resources-4). The methods and results of evaluation or data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the CPUC. If data recovery of resources is necessary, additional archaeologists shall perform the excavation while the monitoring team(s) continues to monitor construction.					
Mitigation Measure Cultural Resources-2: Worker Training. Proposed Project personnel shall receive training regarding the appropriate work practices necessary to effectively implement the APMs and mitigation measures, including the potential for exposing subsurface cultural resources, including human remains. Training shall be required for all personnel before construction commences and repeated for all new personnel before they begin work on the Project. This training program shall be submitted to the CPUC for approval at least 30 days before the start of construction and include procedures to be followed upon the discovery or suspected discovery of archaeological materials and human remains, consistent with the procedures set forth in Mitigation Measure Cultural Resources-1 and Cultural Resources-4.	The training program is prepared by SDG&E and is approved by CPUC and implemented by SDG&E: CPUC verifies that training is scheduled for new employees and record keeping requirements are met.	All personnel receive the CPUC-approved training prior to starting work on the Project. All personnel can effectively implement the APMs and mitigation measures.	Prior to construction – training program will be submitted 30 days prior to construction	N/A	SDG&E, CPUC
Mitigation Measure Cultural Resources-3: Monitoring Report. Upon completion of archaeological monitoring, SDG&E shall prepare a report that summarizes monitoring efforts and the results, analyses, and conclusions of the monitoring program. The report shall be submitted to the CPUC within 60 days of the close of construction. If no archaeological resources are discovered during construction, a letter report shall be submitted to the CPUC summarizing monitoring efforts. If archaeological resources are identified during construction, the report shall be consistent with the California Archaeological Resources Management Reports (ARMR) and commensurate with the nature and significance of the identified resource(s). All archaeological material shall be curated at a recognized curation facility unless the Tribe or Band requests that the Native American artifacts be reburied on site. Any newly identified cultural resources shall be recorded with the SCIC.	A report on the archaeological monitoring program is prepared by SDG&E according to this mitigation measure and is approved by CPUC and implemented by SDG&E; CPUC verifies that archaeological materials are properly curated or reburied and that any newly identified cultural resources are recorded with the SCIC.	An archaeological monitoring program is prepared and all archaeological materials are properly curated or reburied and any newly identified cultural resources are recorded with the SCIC.	Post-Construction – Reports submitted to CPUC 60 days after construction	Work areas with cultural resources	SDG&E, CPUC
Mitigation Measure Cultural Resources-4: Procedures for Discovery of Human Remains. In the event that human remains or suspected human remains are identified, SDG&E shall comply with California law (Heath and Safety Code Section 7050.5; PRC Sections 5097.94, 5097.98, and 5097.99). The area shall be flagged off and all construction activities within 50 feet (15 meters) of the find shall immediately cease. The CPUC-approved cultural resources specialist/archaeologist and SDG&E shall be immediately notified, and the cultural resources specialist/archaeologist shall examine the find. If the CPUC-approved cultural resources specialist/ archaeologist determines that there may be human remains, SDG&E shall immediately contact the Medical Examiner at the San Diego County Coroner's office. The Medical Examiner has two (2) working days to examine the remains after being notified by SDG&E. If the Medical Examiner believes the remains are Native American, he/she shall notify the NAHC within 24 hours. If the remains are not believed to be Native American, the appropriate local law enforcement agency will be notified. The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains, and the MLD has 48 hours to make recommendations to the landowner or representative for the respectful treatment or disposition of the human remains and any associated grave goods. If the MLD does not make recommendations within 48 hours, the area of the property shall be secured from further disturbance. If there are disputes between the landowners and the MLD, the NAHC shall mediate the dispute and attempt to find a solution. If the mediation fails to provide measures acceptable to the landowner, the landowner or their representative shall reinter the remains and associated grave goods and funerary objects in an area of the property secure from further disturbance. The location of any reburial of Native American human remains shall	CPUC verifies that construction stops immediately in any areas where human remains or suspected human remains are found and that respectful treatment or disposition of the remains or grave goods occurs.	Work is stopped if human remains are found and SDG&E complies with California law.	During Construction	Entire project area	SDG&E, CPUC, San Diego County coroner's office (potentially), NAHC (potentially)

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
not be disclosed to the public and shall not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq., unless otherwise required by law. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r).					
Fire and Fuels Management					
APM FIRE-1: Wildland Fire Prevention and Fire Safety Practices. A project-specific fire prevention plan has been drafted for the Proposed Project consistent with Electric Standard Practice 113.1 and the SDG&E Fire Prevention Plan. Electric Standard Practice 113.1 outlines practices and procedures for SDG&E activities occurring within areas of potential wildland fire threat within SDG&E's service territory. The Proposed Project design includes replacement of wood poles with steel poles, increased conductor spacing to maximize line clearances, installation of steel poles to withstand an extreme wind loading case and known local conditions, and undergrounding of a portion of the power line. These design components of the Proposed Project minimize the fire risk through enhanced safety and reliability of the power line system, particularly during extreme weather conditions. The standard practices in Electrical Standard Practice 113.1 include avoidance and minimization measures to comply with state and local fire ordinances. The project-specific fire plan identifies project- specific risk-related activities as well as measures (including tools and procedures) to address said risks.	SDG&E implements the drafted project-specific fire prevention plan and CPUC verifies that the measures in the project-specific fire prevention plan are implemented.	Measures in the drafted project-specific fire prevention plan.	During Construction	Entire project area	SDG&E, CPUC
Mitigation Measure Fire-1: Final Fire Prevention Plan. SDG&E shall prepare and adhere to a Final Fire Prevention Plan (a.k.a. "Fire Plan") specifically tailored for the Proposed Project. The Final Fire Plan shall include, among other provisions, requirements for carrying emergency fire suppression equipment on all construction and employee or contractor vehicles and equipment, restricting smoking and idling vehicles, and restricting construction during red flag warnings. The Final Fire Plan shall be submitted to CPUC for approval at least 30 days prior to construction. The Final Fire Plan shall, at a minimum, include all of the provisions of the Preliminary Draft Fire Plan (Appendix I) and the elements listed below: • During Project construction, SDG&E shall implement ongoing fire patrols during the fire season as defined each year by local, state, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods. • During Red Flag Warning events, as issued daily by the National Weather Service, all construction and maintenance activities shall cease, with an exception for transmission line testing. A transmission line may be tested if the loss of another transmission facility could lead to system instability or cascading outages. • All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational in all Proposed Project work areas and access routes 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 work site. All fires shall be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. • All construction personnel shall be trained in fire-safe actions, initial attack firefighting, and fire reporting. All construction personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. All construction personnel shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all construction personnel, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.	A Final Fire Prevention Plan is prepared by SDG&E according to the provisions in this mitigation measure and is approved by CPUC and implemented by SDG&E.	Fires are prevented with the implementation of the measures in the Final Fire Prevention Plan.	Prior to Construction – Submit Final Fire Plan to CPUC at least 30 days prior to construction During Construction – Implement Final Fire Plan	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Fire-2: Maintain Emergency Access. SDG&E and/or its contractors shall have fire suppression equipment on all construction vehicles. Construction personnel shall be required to park vehicles away from dry vegetation. SDG&E and/or its contractors shall contact and coordinate with the MCAS Miramar Fire Department and applicable local fire departments (i.e., City of San Diego and City of Poway) prior to construction to determine the appropriate amounts of fire equipment to be carried on construction vehicles and to coordinate fire suppression activities. SDG&E shall submit verification of its consultation with MCAS Miramar and local fire departments to CPUC at least 30 days prior to construction. SDG&E shall ensure that construction personnel, construction equipment, and aerial operations do not create obstructions to firefighting equipment or crews. Emergency ingress and egress to access roads shall remain unobstructed at all times. Construction in the work area shall cease in the event of a fire within 1,000 feet of the work area. The work area includes the transmission line right-of-way (ROW), construction laydown and staging areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where construction personnel are active or where equipment is in use or stored. Should a wildfire occur within 1 mile of a work area, helicopters in use by SDG&E shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.	Consultation with MCAS Miramar fire department and local fire departments is conducted by SDG&E; SDG&E provides verification of consultation to CPUC; CPUC verifies that SDG&E implements fire suppression measures, including having fire suppression equipment on all construction vehicles, requiring that vehicles park away from dry vegetation, maintaining access for firefighting crews, and ceasing work, including use of helicopters in the event of a fire.	Wildfire risk are minimized by implementing the fire suppression measures identified in this mitigation measure and by implementing the fire suppression measures identified by local fire departments and the MCAS Miramar fire department.	Prior to construction – SDG&E submits verification of consultation with MCAS Miramar and local fire departments to CPUC at least 30 days prior to construction During construction – Implementation of fire suppression measures	Entire project area	SDG&E, CPUC, MCAS Miramar fire department, local fire departments
Mitigation Measure Fire-3: Water Tanks. SDG&E and/or its contractors shall have water tanks and/or water trucks sited/available at active Project sites for fire protection during Project construction. Prior to construction, SDG&E and its contractors shall contact and coordinate with the MCAS Miramar Fire Department and applicable local fire departments (i.e., City of San Diego and City of Poway) to determine the appropriate minimum capacity and locations for the water tanks if water trucks are not used. SDG&E shall submit verification of its consultation with MCAS Miramar and local fire departments to CPUC at least 30 days prior to construction.	SDG&E consults with MCAS Miramar and local fire departments and CPUC confirms consultation by reviewing documents submitted to the CPUC by SDG&E; CPUC verifies that SDG&E has water tanks and/or water trucks are available at active project sites.	Wildfire risk is minimized by having water tanks and/or water trucks available at active project sites and by consulting with MCAS Miramar and local fire departments.	Prior to construction – verification of consultation sent to CPUC at least 30 days prior to construction During construction – Water tanks and/or water trucks are on site during construction	Active project sites	SDG&E, CPUC, MCAS Miramar fire department, local fire departments
Mitigation Measure Fire-4: Conductor Clearance. SDG&E shall establish adequate conductor clearances prior to energizing the Project by removing all vegetation from within 15 radial feet of new and relocated overhead conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the ROW. In addition, tree branches that overhang the ROW within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread onsite in piles no higher than 6 inches. During Project construction, SDG&E shall maintain adequate conductor clearances by inspecting the growth of vegetation along the entire length of the overhead transmission line at least once each spring and documenting the survey and results in a report submitted to the CPUC before June 1 of each year. Conductor clearance of 15 radial feet under maximum sag and sway shall be maintained at all times. Maximum sag and sway shall be computed based on ambient temperatures of no less than 120 degrees Fahrenheit and wind gusts of no less than 100 miles per hour.	CPUC verifies that vegetation is maintained according to the measures identified in this mitigation measure; A report about the growth of vegetation along the entire length of the overhead transmission line is prepared annually by SDG&E and reviewed by CPUC.	Wildfire risks are reduced by removing vegetation and trimming trees around overhead conductors.	During construction – Vegetation maintenance Operation and Maintenance – SDG&E submits yearly reports to CPUC about vegetation growth	Conductors	SDG&E, CPUC
Geology, Soils, and Mineral Resources					
APM GEO-1: Seismic Standards. Design and construction of overhead facilities would conform to CPUC General Order 95, industry practice, and SDG&E internal structural design requirements to minimize damage from seismic shaking.	CPUC verifies that SDG&E conforms to CPUC General Order 95, industry practice, and SDG&E internal structural design requirements for design and construction of overhead facilities	Overhead facilities conform to CPUC General Order 95, industry practice, and SDG&E internal structural design requirements.	Prior to construction and Planning and Design	All overhead facility locations	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
AMP GEO-2: Geotechnical Recommendations. A geotechnical study will be conducted for the Proposed Project under the direction of a California-licensed Geotechnical Engineer or Certified Engineer Geologist, and recommendations identified in the geotechnical report will be carried out.	SDG&E will conduct a geotechnical study for the Proposed Project and follow recommendations of geotechnical report; CPUC will verify that the recommendations of the geotechnical report are carried out as described during monitoring.	Geotechnical study for the Proposed Project is conducted and recommendations identified in the geotechnical report are followed.	Prior to construction	Entire project area	SDG&E, CPUC
APM GEO-3: Minimize Soil Disturbance. Ground and soil disturbance will be minimized through the use of existing access routes, to the extent feasible. Soil erosion and topsoil loss would be controlled by implementing SDG&E's *BMP Manual* during the construction of the Proposed Project. Additionally, the Proposed Project would comply with the Construction General Permit, which would include the preparation of SWPPP. Topsoil would be salvaged from areas where grading would otherwise result in loss of topsoil, and the salvaged soil would be used to reclaim areas of temporary construction disturbance.	CPUC verifies that SDG&E implements their BMP Manual during construction of the Proposed Project and that SDG&E complies with the Construction General Permit.	Measures in SDG&E's BMP Manual and the Construction General Permit are implemented during the construction of the Proposed Project. Topsoil is salvaged and used to reclaim areas of temporary construction disturbance.	During construction	Entire project area	SDG&E, CPUC
Mitigation Measure Geology-1: Geotechnical Investigation for Liquefaction. The design level geotechnical investigations to be performed by SDG&E shall include investigations that assess the potential for liquefaction to affect the Project and all associated facilities, specifically at tubular steel pole locations in areas with potential liquefaction-related impacts. Where these hazards are found to occur, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the a California-licensed Geotechnical Engineer or Certified Engineering Geologist. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvement of liquefiable zones, 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 for review and approval at least 60 days before final project design.	A design level geotechnical investigation for liquefaction is prepared by SDG&E and is approved by CPUC and implemented by SDG&E; CPUC verifies that SDG&E incorporate appropriate engineering design and construction measures that would mitigate liquefaction-related impacts into the project.	The findings and recommendations from the geotechnical investigations are incorporated to the project design after approval from CPUC; the report is submitted to the CPUC at least 60 days prior to final project design.	Final Planning and Design – 60 days prior to final project design	Entire project area	SDG&E, CPUC
Mitigation Measure Geology -2: Geotechnical Investigation for Landslides. The design-level geotechnical surveys conducted by SDG&E shall include slope stability analyses in areas of planned grading and excavation that cross and are immediately adjacent to hills and mountains. These surveys shall acquire data that shall allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and shall provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to Project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities. These design measures shall include, but are not limited to, retaining walls, visquene, removal of unstable materials, and avoidance of highly unstable areas. SDG&E shall document compliance with this measure prior to the final project design by submitting a report to the CPUC for review and approval at least 60 days before construction. The report shall document the investigations and detail the specific support and protection measures that shall be implemented.	Slope stability analyses are conducted by SDG&E and are approved by CPUC and implemented by SDG&E; CPUC verifies that SDG&E implements the support and protection measures identified in the investigations.	Areas with the potential for unstable slopes, landslides, earth flows, and debris flows are identified and support and protection measures are implemented to minimize impacts	Prior to construction – Documentation sent to CPUC at least 60 days before construction During construction – Implement support and protection measures	Areas of planned grading and excavation that cross and are immediately adjacent to hills and mountains	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Geology-3: Assess Potential for Collapsible and Expansive Soils. The design-level geotechnical surveys shall identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and American Society for Testing and Materials 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 construction. The report shall document the investigations and detail the specific support and protection measures that shall be implemented.	Expansive or collapsible soils and appropriate design features are identified in the design-level geotechnical surveys by SDG&E and are approved by CPUC and implemented by SDG&E; CPUC verifies that SDG&E implements the support and protection measures identified in the investigations.	Areas with potentially expansive or collapsible soils are identified and support and protection measures are implemented to minimize impacts	Prior to construction – Documentation sent to CPUC at least 60 days before construction During construction – Implement support and protection measures	Areas with potentially expansive or collapsible soils	SDG&E, CPUC
Greenhouse Gas Emissions					
APM AIR-4: Equipment Emissions Standards. All equipment will meet a minimum of USEPA Tier 2 emission standards. For the purpose of this evaluation, equipment would be comprised of a mix of 70 percent Tier 2 equipment and 30 percent Tier 3 equipment. All on-road heavy-duty vehicles, off-road construction vehicles, and portable equipment used in the project will comply with CARB's Airborne Diesel Air Toxic Measures (ATCMs).	CPUC verifies that SDG&E complies with CARB's SF_6 regulations and maximum emission rates by implementing ongoing standard internal programs and practices.	SF_6 mitigation strategies are implemented.	During construction and Operation and Maintenance – During vehicle use	Entire project area	SDG&E, CPUC
Mitigation Measure GHG-1: Disposal of Organic Matter. In accordance with requirements in Assembly Bill 1826, SDG&E shall dispose of organic waste (defined in PRC Section 42649.8(c) as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, ad food-soiled paper waste that is mixed in with food waste) removed on and after April 1, 2016 by means other than transporting to a landfill if the amount of organic waste meets or exceeds eight cubic yards per week. On and after January 1, 2017, SDG&E shall dispose of organic waste by means other than transporting to a landfill if the amount of organic waste meets or exceeds four cubic yards per week. Options for non-landfill disposal may include composting on previously disturbed SDG&E land, self-hauling organic waste for recycling, or participating in a greenwaste recycling program in accordance with subdivision (b) of AB 1826. SDG&E shall notify the CPUC of the disposal method at least 30 days prior to construction.	CPUC verifies that organic matter is disposed of in an area other than a landfill.	Organic waste is disposed of in a manner other than transportation to a landfill.	Prior to construction – SDG&E will notify CPUC on disposal method 30 days prior to construction During construction – Disposal of organic waste in the non-landfill alternative	To be determined during determination of disposal method	SDG&E, CPUC
Hazards and Hazardous Materials					
APM HAZ-1: Safety and Environmental Awareness Program. SDG&E will prepare a Safety and Environmental Awareness Program (SEAP) for project-personnel. The SEAP may include training for relevant topics such as: • General safety procedures • General environmental procedures • Fire safety • Biological resources • Cultural resources • Paleontological resources • Hazardous materials protocols and BMPs • SWPPP	CPUC verifies that SDG&E prepares a SEAP for project personnel.	Project personnel receive training according to the SEAP.	Prior to Construction	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
APM HAZ-2: Consistency with State and Federal Regulations. SDG&E shall address potential impacts relating to the handling and use of hazardous materials through compliance with numerous state and federal regulations, including, but not limited to: • Federal Occupational Safety and Health Administration (OSHA) regulations for worker safety in hazardous material remediation and hazardous waste operations (29 CFR Section 1910.120) • Federal OSHA regulations hazard communication for workers (29 CFR Section 1910.1200) • Federal OSHA regulations for toxic air contaminants for workers (29 CFR Section 1910.1000) • CalOSHA regulations for worker safety in hazardous material remediation and hazardous waste operations (8 California Code of Regulations [CCR] 5192), • CalOSHA regulations for hazard communication for workers (8 CCR 5194), and • Department of Toxic Substances Control (DTSC) regulations implementing Resource Conservation and Recovery Act of 1976 (RCRA) and the California Hazardous Waste Control Law (HWCL) (22 CCR Division 4.5). SDG&E would implement standard operational procedures for the transport, use, storage, and disposal of hazardous materials. This includes, but is not limited to the use of absorbent pads for spill containment, specified locations for construction vehicle refueling, and a daily vehicle inspection schedule designed to identify leaking fuels and/or oils as early as possible.	CPUC verifies that SDG&E follows federal and state regulations related to the handling and use of hazardous materials and that standard operation procedures are followed.	SDG&E follows all federal and state laws relating to the handling and use of hazardous materials and implements standard operation procedures.	During Construction	Entire project area	SDG&E, CPUC
APM HAZ-3: SDG&E Compliance Management Programs. The construction contractors would implement (in addition to regulatory and SDG&E requirements) their own compliance management programs to ensure that regulatory requirements are adhered to and that worker and public safety are secured.	CPUC verifies that compliance management programs of construction contractors are implemented in addition to regulatory and SDG&E requirements.	Compliance management programs of construction contractors are implemented in addition to regulatory and SDG&E requirements.	During Construction	Entire project area	SDG&E, CPUC
APM HAZ-4: SDG&E Protocol for Herbicide Application. All herbicides utilized during maintenance around transmission and power line structures would follow SDG&E's existing procedures for application of herbicides.	CPUC verifies that SDG&E follows existing SDG&E procedures for herbicide application during operation and maintenance.	Herbicides are handled with safety; SDG&E's existing procedures for application of herbicides are applied.	Operation and Maintenance – During herbicide application	All locations of transmission and power line structures	SDG&E, CPUC
Mitigation Measure Hazards-1. Site Specific Blasting Plan. The construction contractor shall ensure compliance with all relevant local, state, and federal regulations relating to blasting activities through the development and submittal of site-specific blasting plans, notification requirements, and monitoring as required below: ***Blasting Plan.*** A site-specific blasting plan shall be prepared prior to rock blasting in any location where blasting is required. Each blasting plan must include noise and vibration calculations, blasting methods, surveys of existing structures and other built facilities, and distance calculations to estimate the area of effect where vibration levels would exceed 0.2 in/sec PPV or noise levels would exceed 90 dBA as a result of the blasting. The blasting plan shall identify a hazardous zone for people during blasting. The hazardous zone shall be defined as the area where a person could be injured or killed if they were to be located in that zone during controlled detonation. Personnel and members of the public shall be located outside of the hazardous zone. The blasting plan shall include methods to verify that personnel or members of the public are located outside of the hazardous zone. In addition, the blasting plan shall identify the trails that are adjacent to the blasting sites and that would require temporary closure during blasting activities. Finally, the blasting plan would require that SDG&E coordinate with MCAS Miramar to identify any locations where controlled detonation would be prohibited because the detonation site is located near unexploded ordnances. Blasting plans shall be submitted to the CPUC and the City of San Diego for review and	A site-specific blasting plan is prepared by SDG&E according to the provisions identified in this mitigation measure and is approved by CPUC and City of San Diego and implemented by SDG&E. CPUC verifies that SDG&E implements the site-specific blasting plan.	Impacts from blasting are minimized by implementation of the measures in this mitigation measure	Prior to construction	Project locations where blasting would occur	SDG&E, CPUC, City of San Diego

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
approval before blasting at each site. SDG&E's contractor shall prepare daily blasting-related reports that include: Blast Report, Seismograph Monitoring Report, Inspection Report, Blasting Complaint Report, and Pre-Blast Inspection Report. ***Notification.*** SDG&E shall notify all sensitive receptors within 500 feet of the area of effect at least 1 week prior to the blasting event. The notification shall include the time and location of the blasting and provide best management practices that people can use to reduce the noise level experienced at the time of the blasting (i.e., stay indoors and close windows). The notification shall include phone numbers for a public liaison and complaint hotline as required by Mitigation Measure Noise-1. SDG&E shall also alert nearby residents immediately prior to blasting by sounding warning signals/sirens. ***Monitoring.*** Immediately prior to controlled detonation, SDG&E personnel shall visually verify that no people are located within the hazardous zone. SDG&E shall follow all required monitoring protocols described in the blasting plan. ***Minimize Damage.*** Adjacent structures within 500 feet of blasting locations shall be surveyed prior to blasting to determine their vulnerability to damage and to document their current physical exterior condition. Blasting shall not be allowed where damage to vulnerable structures is likely to occur; a chemical agent for rock fracturing or a rock anchoring or mini-pile system shall be used instead in such circumstances. The following provisions shall be employed to minimize risk of damage to structures in the area: • Blasting mats shall be employed to eliminate flyrock. • SDG&E's contractor shall employ proper stemming in the drill holes to control flyrock. Stemming shall be left at the top of blast holes to control/eliminate airblast. If any structure is inadvertently adversely affected by construction vibration, the structure shall be restored to conditions equivalent to those prior to blasting. SDG&E shall then fairly compensate the owner of any damaged structure for lost use.					
Mitigation Measure Hazards-2. SPCC Plan. As part of the Safety and Environmental Awareness Program (SEAP), SDG&E shall prepare a site-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan that will identify spill prevention and response measures and Best Management Practices (BMPs). The plan will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest water bodies). An SDG&E-designated representative shall be identified to ensure that all hazardous materials and safety plans are followed throughout the construction period. BMPs identified in the project Stormwater Pollution Prevention Plan (SWPPP) and SPCC Plan shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A copy of the project SEAP shall be submitted to the CPUC at least 30 days prior to construction. All construction personnel shall be required to attend SEAP training prior to conducting any work on the project site. Training attendance sheet(s) shall be submitted to the CPUC on a monthly basis.	The site-specific SPCC is prepared by SDG&E, as part of the SEAP and is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the SPCC.	Procedures and requirements in the SPCC are implemented.	Prior to construction – SEAP submitted 30 days prior to construction During construction – Implementation of SPCC	Entire project area	SDG&E, CPUC
Mitigation Measure Hazards-3. HSCERP. SDG&E shall prepare and incorporate methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction and post-construction operation into a Hazardous Substance Control and Emergency Response Plan (HSCERP). The HSCERP shall be part of the project-specific SWPPP and shall be submitted to CPUC for recordkeeping at least 30 days prior to project construction. The HSCERP measures shall require implementation of appropriate control methods and approved containment (e.g., use of partial or total enclosures, hazardous material handling methods and employee training, ventilation requirements) and spill control practices for construction and on-site hazardous material storage. All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations by personnel qualified to handle hazardous materials. With the exception of wood poles, the plan shall specify that	A HSCERP is prepared according to the specifications in this mitigation measure and is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the HSCERP.	Minimize exposure of the public to potentially hazardous materials by implementing the measures in the HSCERP.	All phases of the project	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
all hazardous materials shall be collected in project-specific containers and transported to an SDG&E service center designated as a SDG&E consolidation site. Wood poles shall be transported off site once removed from the ground and temporarily stored in project-specific containers at an SDG&E facility. As containers are filled, poles shall be transported to an appropriately licensed Class I landfill or the compost-lined portion of a solid waste landfill. The HSCERP measures shall also include, but not be limited to, the following: • Proper disposal of contaminated soils • Daily inspection of vehicles and equipment parking near sensitive resource areas during construction and spill containment procedures • Emergency response and reporting procedures to address hazardous material releases • Adequate operation and safety buffering and grounding measures • Fueling of any vehicles, equipment, and helicopters in staging yards or on streets paved with secondary containment and away from sensitive resource areas (e.g., preserves, designated open space areas, conserved habitat) The measure shall specify that emergency spill supplies and equipment shall be available to respond in a timely manner if an incident should occur. Response materials such as oil-absorbent material, tarps, and storage drums shall be available at the project site at all times during construction and shall be used as needed to contain and control any minor releases.					
Mitigation Measure Hazards-4. Uncover Existing Utility Pipelines. SDG&E shall excavate ("pothole") to the top of any buried existing utilities, including pipelines, that are located within 10 feet of a proposed excavation (e.g., pole foundation, retaining wall footing, duct bank, or vault structure) to verify the location of the existing utility prior to initiating excavation work. Potholing work shall be performed using a non-destructive method (e.g., air vacuum extraction) that will not damage an existing pipeline once it is encountered. Potholing work shall be conducted under the oversight of a representative of the appropriate utility company. Potholing shall reveal the top of the pipeline only and shall not go any deeper than the top of the pipe so as to not damage the pipe in any way. Two potholes shall be excavated at each associated foundation location so that the orientation of existing pipelines can be verified. Potholes shall be backfilled with stockpiled soil once the location and orientation of the pipeline has been verified and marked. The utility company representative shall verify and approve that backfill and compaction of the potholes has been performed adequately. If the pipeline is located within the footprint of a proposed pole foundation, no pole foundation excavation work shall commence until SDG&E and CPUC have been notified and the pole location has been relocated sufficiently far away from the buried pipeline.	CPUC verifies that SDG&E locates all buried utilities and does not damage buried utilities; CPUC approves pole relocation, as necessary.	Utilities are located, left undamaged, properly covered, and pole relocations are conducted as necessary.	Prior to construction	Within 10 feet of proposed TSP foundations along TL 6965	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Hazards-5. Soil and Groundwater Testing. Soil samples shall be taken from representative foundation depths prior to construction excavation for TSP P26 and shall be tested to determine the presence and extent of gasoline and other hydrocarbons. The sampling and testing plan shall be prepared and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. Soil and groundwater samples shall be tested at a California Certified Laboratory. A report documenting the areas proposed for sampling, and the process to be used for sampling and testing shall be submitted to the CPUC for review and approval at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling of excavation material found to exceed regulatory requirements shall be submitted to the CPUC 30 days prior to construction. In the event that soils to be excavated are found to be contaminated, the excavated soil shall be treated as hazardous materials and disposed of in compliance with state and federal regulations and SDG&E operational procedures. Effective dust suppression procedures will be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the State of California (DTSC or RWQCB) and San Diego County shall be contacted by SDG&E or its contractor to plan handling, treatment, and/or disposal options.	SDG&E will test soils from representative foundation depths for TSP P26 for gasoline and other hydrocarbons; A report that summarizes the survey process, results, and recommendations is prepared by SDG&E and reviewed by CPUC; CPUC verifies that contaminated soils are disposed of according to this mitigation measure.	Contaminated soils are identified around TSP P26 prior to construction. Contaminated soils are properly disposed according to state and federal regulations.	Prior to construction – soil sampling and reporting During construction – proper disposal of contaminated soils	TSP P26	SDG&E, CPUC
Mitigation Measure Hazards-6. Unexploded Ordnance Investigation. SDG&E shall perform a survey of identified Formerly Used Defense Sites (FUDS) database sites prior to the start of construction to identify potential unexploded ordnance locations. An unexploded ordnance investigation of known and potential areas used by the military along the ROW shall be undertaken by a trained contractor. If unexploded ordnance are found, they shall be removed by trained personnel. All personnel involved in excavation, grading, or ROW clearing shall be educated by the trained contractor to recognize unexploded ordnance.	CPUC verifies that SDG&E investigates, surveys, and identifies potential unexploded ordnance and follows appropriate removal measures by trained personnel.	Unexploded ordnances are found and removed and personnel involved in excavation, grading, or ROW clearing are trained to recognize unexploded ordnance	Prior to construction	Entire project area	SDG&E, CPUC
Mitigation Measure Hazards-7. Induced Current Touch Study. SDG&E shall identify both aboveground and underground objects (e.g., metal fences or buried metal utility lines) in the vicinity of the proposed 230-kV transmission line that may potentially present a shock hazard to the public, due to induced currents or voltages. SDG&E shall prepare an Induced Current Touch study that evaluates the conductive and inductive interference effects of the proposed 230-kV transmission line on the identified objects. The Induced Current Touch study shall model the conductive objects using the maximum anticipated voltage for the proposed 230-kV line and shall consider the construction details for the transmission line. The study shall also construct a model using fault conditions. The maximum acceptable touch voltage under steady-state conditions is 15 volts and the threshold for fault conditions is specified in ANSI/IEEE Standard 80. In the event that the modeled induced current voltage of a conductive objective exceeds maximum touch voltage thresholds, SDG&E shall install grounding or other appropriate measures to protect the public from hazardous shocks. The Induced Current Touch study shall include the model voltage results of conductive objects prior to implementation of grounding measures and after implementation of grounding measures. Sixty days prior to commencing construction, SDG&E shall provide the Induced Current Touch study to the CPUC, for review. The Induced Current Touch study shall include the criteria and approach that was used to determine what facilities could present a shock, the results of the model prior to implementation of grounding measures, details of the grounding or other measures to be installed, and the results of the model after implementation of the grounding measures.	An Induced Current Touch study is prepared according to this mitigation measure and is approved by CPUC and implemented by SDG&E. CPUC verifies that SDG&E implements the measures in the Induced Current Touch study.	Conductive objects that could potentially create a shock hazard are identified and mitigation to reduce the hazard are identified in the Induced Current Touch study Grounding or other appropriate measures are installed for conductive objects that could potentially create a shock hazard	Prior to construction	Project areas with potential shock hazards	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Hydrology and Water Resources					
APM HYDRO-1: Temporary BMPs. SDG&E's Water Quality Construction BMPs Manual (BMP Manual) organizes and presents SDG&E's standard water quality protection procedures for various specific actions that routinely occur as part of SDG&E's ongoing construction, operations, and maintenance activities. The primary focus of most BMPs is the reduction and/or elimination of potential water quality impacts during construction of linear projects such as the Proposed Project. The BMPs described within the BMP Manual were derived from several sources including the State of California guidelines as well as the Caltrans Water Quality BMPs. The BMP Manual will be utilized during construction (by way of preparation and implementation of the SWPPP), operation, and maintenance of the Proposed Project to ensure compliance with all relevant SDG&E and government-mandated regulatory water quality standards. Additionally SDG&E will follow the BMPs in the SDG&E Subregional NCCP.	CPUC verifies that SDG&E follows the BMP Manual, including those in the SDG&E Sub regional NCCP.	Best management practices to minimize impacts to water quality are implemented.	During construction and Operation and Maintenance	Entire project area	SDG&E, CPUC
APM HYDRO-2: Permanent BMPs. Once temporary surface disturbances are complete, areas that would not be subject to additional disturbance will be stabilized to control soil erosion. Disturbed areas must be stabilized per the project SWPPP.	CPUC verifies that disturbed areas are stabilized by SDG&E per the project SWPPP.	Disturbed surface areas are stabilized.	During construction	All locations with temporary surface disturbance	SDG&E, CPUC
APM HYDRO-3: Avoid Jurisdictional Drainages. To avoid impacts to jurisdictional drainages during road refreshing or reestablishment activities, the following minimization measures would be implemented: • Any excess soil would be spread on site outside of jurisdictional drainages to match existing contours and property compacted or hauled off site. • Graded areas would be stabilized to promote infiltration and reduce run-off potential. • Erosion protection and sediment control BMPs would be implemented in compliance with the General Construction General Permit, Stormwater Pollution Prevention Plan (SWPPP), SDG&E Water Quality Construction BMPs Manual (BMP Manual), and the SDG&E Subregional Natural Community Conservation Program (NCCP). • At designated jurisdictional drainage crossings locations along the access roads, the blade of the smoothing equipment would be lifted 25 feet on either side of the drainage to avoid impacts.	CPUC verifies that SDG&E implements minimization measures to avoid impacts to jurisdictional drainages.	Best management practices to reduce impacts to jurisdictional drainages are implemented	During construction	Near jurisdictional drainages	SDG&E, CPUC
Mitigation Measures Hydrology-1: SWPPP and Treatment of Shallow Groundwater Discharge. SDG&E shall prepare a Stormwater Pollution Prevention Plan in compliance with the State Water Resources Control Board Construction General Permit CAS000002 (Order No. 2012-0006-DWQ) and City of San Diego Stormwater Standards Manual (2012). Project construction plans and the SWPPP shall be submitted to the CPUC and the City of San Diego for review and approval prior to construction. The SWPPP shall address erosion and sedimentation control, groundwater dewatering procedures, hazardous materials identification, handling, disposal and emergency spill procedures, and any other best management procedures necessary to prevent sediment or contaminants from entering Los Peñasquitos Creek. Groundwater extracted during construction dewatering shall not be discharged to any surface waters or storm drains. If dewatering is necessary, the water shall either be used (i) to irrigate upland areas, (ii) for dust control, or (iii) as makeup for a construction process (e.g., concrete production).	SDG&E prepares and submits SWPPP to CPUC and City of San Diego; SDG&E obtains approval of SWPPP from the City of San Diego prior to construction; CPUC verifies that SDG&E implements SWPPP and does not discharge groundwater to surface water or storm drains and if dewatering is necessary, the water is used to irrigate uplands areas, for dust control, or as makeup for a construction process.	SWPPP is prepared and implemented. Groundwater is not discharged to surface water or storm drains.	During construction	All excavated areas	SDG&E, CPUC, City of San Diego

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Hydrology-2: Restrict Dust Control Water Usage. Water shall only be applied under APM AIR-1 to maintain moist soils. No water shall be applied during or immediately following rain events when soils are already damp. Dust control water shall be applied in a manner that does not create or contribute to runoff.	CPUC verifies that SDG&E only applies waters under APM AIR-1 to maintain moist soils; that SDG&E does not apply water during or immediately following rain events; and that water for dust control is applied in a manner that does not create or contribute to runoff.	Water is only applied when soils are not already damp. Dust control water does not create or contribute to runoff.	During construction	Entire project area	SDG&E, CPUC
Mitigation Measures Hydrology-3: Reclaimed Water Use for Irrigation. Water for operation and maintenance activities, including irrigation of restoration areas, shall be obtained solely from reclaimed water sources. Groundwater shall not be used.	CPUC verifies that SDG&E uses reclaimed or potable water, and not groundwater for operation and maintenance activities.	Reclaimed or potable water is used for operation and maintenance activities. Groundwater is not used for operation and maintenance activities.	Operation and Maintenance	Entire project area	SDG&E, CPUC
Noise					
APM NOISE-1: Generator Usage. Generator use will be limited to less than 50 horsepower (50 HP) at all staging yards, unless larger generators are appropriately permitted. Any generators used at staging yard will be located away from noise sensitive areas, and positioned on the property to comply with local noise ordinances.	CPCU verifies that SDG&E locates generators away from sensitive noise areas, positions generators in a way that complies with local noise ordinances, and limits generator use to less than 50 HP, unless larger generators are appropriately permitted.	Generator use is less than 50 HP, unless larger generators are appropriately permitted; generators are located away from noise sensitive areas; and generator locations comply with local noise ordinances.	During construction	All staging yards	SDG&E, CPUC
APM NOISE-2: Use of Mufflers. Functioning mufflers will be maintained on all equipment.	CPUC verifies that functioning mufflers are maintained.	Functioning mufflers are maintained.	During construction and Operation and Maintenance	Entire project area	SDG&E, CPUC
APM NOISE-3: Resident Notifications. Residents within 50 feet of proposed construction activities will be notified of the start of construction at least 1 week prior to construction activity in the area.	CPUC verifies that SDG&E sends notifications to residents within 50 feet of a proposed construction work area, at least 1 week prior to construction activity.	Notifications are sent to residents near Proposed Project work areas.	During construction – notification are sent 1 week prior to construction activity	Residences within 50 feet of construction work area	SDG&E, CPUC
APM NOISE-4: Helicopter Use. Helicopter usage for the Proposed Project would be limited to those hours deemed acceptable for construction activities by the City of San Diego Noise Code (7 AM to 7 PM) and the City of Poway Noise Code (7 AM to 5 PM). Helicopter usage at any one location would be very brief as the lines are being strung or during pole removal and installation activities.	CPUC verifies that SDG&E uses helicopters within the allowed hours of the day.	Helicopter usage is restricted to acceptable hours of the day.	During construction – During helicopter use (7 AM – 7PM for work in the City of San Diego and 7 AM to 5 PM for the City of Poway)	Where helicopters are used	SDG&E, CPUC
APM NOISE-5: City Noise Variance and Blasting Guidelines. For the few locations where the Proposed Project would exceed the noise ordinances, SDG&E would meet and confer with the appropriate city to discuss temporarily deviating from the requirements of the Noise Code, as described in the construction noise variance process. Additionally, in the unlikely event that rock blasting is used during construction, a noise and vibration calculation will be prepared and submitted to SDG&E Environmental Programs and Transmission Engineering and Design for review before blasting at each site. The construction contractor will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities, as well as SDG&E's blasting guidelines.	A noise and vibration calculation is prepared by SDG&E if rock blasting is used and is approved by CPU; CPUC verifies that SDG&E coordinates with the appropriate City when the Proposed Project would exceed the noise ordinances.	SDG&E coordinates with the City where the Proposed Project would exceed the noise ordinances. A noise and vibration calculation is prepared, prior to blasting. All relevant local, state, and federal regulations related to blasting are followed.	Prior to construction	Locations where the Proposed Project would exceed the noise ordinance	SDG&E, CPUC, City of Poway, City of San Diego
Mitigation Measure Noise-1: Resident Notification and Complaints. SDG&E shall provide notice by mail at least 1 week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging yards, and access roads, and within 1,000 feet of helicopter fly yards and flight paths. SDG&E shall also post notices in	CPUC verifies that SDG&E notifies residences and sensitive receptors of construction work according to this mitigation measure; monthly reports of	The public is notified of increases in noise from construction activities and public complaints regarding	Prior to construction and during construction – assign public liaison to hear noise complaints	Within 500 feet of construction sites, staging yards, and access roads	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
public areas, including recreational use areas, within 300 feet of the project alignment and construction work areas. The announcement shall state specifically where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide specific details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. SDG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring receptors, including residents, about noise construction disturbance. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). SDG&E shall address all complaints within 1 week of when the complaint is filed. SDG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to CPUC within 15 days of the end of the month.	noise complaints and concerns are prepared by SDG&E and reviewed by the CPUC	noise are addressed in a timely fashion.	During construction – notices sent at least 1 week prior to construction	Within 1,000 feet of helicopter fly yards and flight paths Within 300 feet of the project alignment and construction work areas	
Mitigation Measure Noise-2: Noise-suppression Techniques. SDG&E shall implement the following noise-suppression techniques to avoid possible violations of local rules, standards, and ordinances from construction noise: • Night and weekend construction activities shall be limited to activities that will not produce noise greater than 40 dBA at the nearest receptor (school, residence, hospital, or place of worship). Construction activities permitted to occur during nights and weekends include: – Arrival and departure of workers at staging yards – Construction management tailboard meetings – Staging yard operations including maintenance of equipment and material deliveries – Security operations in yards and at locations where equipment/material is stored on the ROW overnight • SDG&E shall apply for and obtain variances from the City of San Diego and the City of Poway for construction activities that must occur outside of the daytime hours allowed by local ordinances in each jurisdiction. SDG&E shall submit a copy of approved variances to the CPUC at least two weeks prior to construction activities requiring the variance. The CPUC will not authorize any work outside of locally permitted construction hours that would exceed local standards without an approved variance. • Sound walls or acoustic blankets shall be temporarily installed to shield adjacent residences from stationary equipment (e.g., generators) where residences are located within 200 feet of the equipment. The sound walls or acoustic blankets shall have a height of no less than 3 feet greater than noise-generating piece(s) or parts of equipment, a Sound Transmission Class (STC) of 19 or greater, and a surface with a solid face from top to bottom without any openings or cutouts along the face or at the base of the barrier. • Construction traffic shall be routed away from residences and schools, where feasible. • Unnecessary construction vehicle use and idling time shall be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. If a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off.	CPUC verifies that SDG&E implements noise-suppression techniques identified in this mitigation measure; SDG&E obtains variances from the City of San Diego and the City of Poway and implements the noise suppression techniques identified in this mitigation measure for construction activities that require a variance; CPUC does not authorize any work outside of locally permitted construction hours that would exceed local standards without an approved variance.	Noise-suppression techniques are implemented. Variances are obtained from the City of Poway and the City of San Diego for construction activities that must occur outside of the daytime hours allowed by local ordinances in each jurisdiction. Noise suppression techniques are implemented for construction activities that require a variance.	Prior to construction – SDG&E submits a noise variance During construction – Implementation of noise suppression measures	Entire project area	SDG&E, CPUC, City of San Diego, City of Poway

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Noise-3: Helicopter Take-off and Landing Areas. Helicopter takeoff and landing areas shall be located a minimum of 300 feet from the nearest sensitive receptor. Helicopter takeoff and landing shall only occur from the hours of 7 AM to 5 PM. No helicopter takeoff and landing areas shall be permitted at the Evergreen Nursery staging yard due to the close proximity of sensitive receptors adjacent to this staging yard.	CPUC Verifies that SDG&E follows helicopter takeoff and landing restrictions.	Exposure of noise to sensitive receptors is minimized by following the restrictions in this mitigation measure.	During construction	Helicopter takeoff and landing	SDG&E, CPUC
Mitigation Measure Noise-4: Corona Rings. SDG&E shall install corona rings on all insulators to minimize the effects of corona along the 230-kV transmission line.	CPUC verifies that SDG&E installs corona on all insulators.	Corona rings are installed on all insulators.	During construction	Insulators	SDG&E, CPUC
Mitigation Measure Noise-5: Corona Noise Complaints. SDG&E shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures (such as wash insulators, repair damaged conductors, insulators, or other hardware). As part of SDG&E's repair inspection and maintenance program, the transmission line shall be patrolled, and damaged insulators or other transmission line materials, which could cause excessive noise, shall be repaired or replaced.	CPUC verifies that SDG&E responds to third-party complaints, that measures are implemented to address complaints, and that the transmission line is patrolled during operations.	SDG&E responds to third party complaints regarding corona noise and measures are implemented to resolve any corona noise issues.	Operation and Maintenance	All permanent project component	SDG&E, CPUC
Mitigation Measure Noise-6: Coordinate Helicopter Activities with Schools. SDG&E shall coordinate with local schools to schedule helicopter activities and transmission line construction activities, including power pole installation and trenching activities. No activities shall be allowed within 300 feet of school properties at times when classes are in session. Helicopter activities and construction near schools shall be conducted outside of active instruction periods (e.g., before school, after school, during lunch or classroom breaks). Schools shall be notified of any helicopter activities that would increase the noise level at classrooms by 5 dBA or more at least 30 days prior to helicopter use.	CPUC verifies that SDG&E coordinates construction activities with schools.	Construction activities that would result in a substantial increase in ambient noise levels are scheduled during school breaks or at least 300 feet from school properties when school is in session and schools are notified of any increases in noise of 5 dBA or more.	Prior to construction	Construction areas within 300 feet of school properties	SDG&E, CPUC
Paleontological Resources					
APM PAL-1: Paleontological Monitor. A paleontological monitor would work under the direction of a qualified Project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits for the eight poles located within paleontologically sensitive formations (i.e., Friars, Mission Valley, Scripps and the Ardath Shale Formations). A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.	CPUC verifies that an SDG&E paleontological monitor is on site to observe excavation operations.	Monitoring occurs during excavation operations.	During construction	Areas of excavation	SDG&E, CPUC
APM PAL-2: Paleontological Screen-Washing. In the event that fossils are encountered, the paleontological monitor would have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The paleontologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. If fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk-sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report would be written.	CPUC verifies that SDG&E diverts or temporarily halts construction activities if fossils are encountered and that SDG&E determines the significance of discovered fossils; A paleontological monitoring report is prepared by SDG&E according to the provisions identified in this mitigation measure and is reviewed by SDG&E; CPUC verifies that the paleontologist or paleontological monitor recovers any previously undiscovered fossils.	Fossils are recovered. A paleontological monitoring report is prepared.	During construction.	Entire project area	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Paleontology-1: Paleontological Monitoring. Paleontological monitoring shall be required for all ground-disturbing activities that occur in in formations determined to have a moderate to high paleontological sensitivity; ground-disturbing activities that occur areas with indeterminate, low, or marginal paleontological sensitivity may be conducted on a part-time basis at the discretion of the qualified paleontologist, and areas with zero paleontological sensitivity will not require monitoring. Paleontological monitoring shall be conducted by a CPUC-approved, qualified paleontologist. The qualified paleontologist shall have a Master's or PhD in paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques. Paleontological monitoring shall also be required for all construction activities that require excavation, grading, or augering of 5 feet in diameter or greater at depths greater than 5 feet only in areas where these activities will disturb previously undisturbed strata in moderate to high paleontologically sensitive formations.	CPUC verifies that SDG&E performs monitoring in areas identified in this mitigation measure.	SDG&E conducts paleontological monitoring.	During construction	Areas where activities will disturb low, marginal, moderate, and high paleontologically sensitive formations	SDG&E, CPUC
Mitigation Measure Paleontology-2: Note Monitoring Areas on Plans. All project areas that would require paleontological monitoring shall be noted on construction drawings and plans. A CPUC-approved, qualified paleontologist shall attend pre-construction meetings, as needed, to consult with the excavation and grading contractor concerning the schedule for excavations and other surface disturbance, paleontological field techniques, and safety issues.	CPUC verifies that a qualified paleontologist identified by SDG&E attends pre-construction meetings, as needed	A qualified paleontologist attends the pre-construction meetings.	Prior to construction	Areas of excavation	SDG&E, CPUC
Mitigation Measure Paleontology-3: Avoidance of Resources or Other Methods of Mitigation. In the event that a previously unidentified paleontological resource is uncovered during project implementation, all ground-disturbing work within 50 feet (15 meters) of the discovery shall be halted. A CPUC-approved, qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, the qualified paleontologist shall evaluate the resource and determine whether it is "unique" under CEQA, Appendix G, part V. The determination and associated plan for protection of the resource shall be provided to CPUC for review and approval. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the qualified paleontologist shall consult with SDG&E and CPUC staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation in place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources and shall be required unless there are other equally effective methods. Other methods may be used but must ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines (SVP 2010) standards. Work may commence upon completion of treatment, as approved by CPUC. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils. The report shall also include an itemized inventory of all collected and catalogued fossil specimens.	CPUC verifies that all ground-disturbing work is halted if any paleontological resources are uncovered, and that appropriate mitigation methods are implemented; Reports summarizing the recovered paleontological resources are prepared by SDG&E and reviewed by CPUC.	Paleontological resources are evaluated and treated as necessary.	During construction	Where previously unidentified paleontological resources are uncovered	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Recreation					
APM REC-1: Coordination with Parks and Preserves, and Buffer Between Active Work Areas and Trails. Appropriate safety measures will be implemented where trails and parks are located in close proximity to construction areas to provide a safety buffer between recreational users and construction areas. Construction schedule and activities will be coordinated with the authorized officer for each affected recreation area.	CPUC verifies that SDG&E implements appropriate safety measures for trails and parks close to construction areas and coordinates with the authorized office for each affected recreation area.	Recreational users are at a safe distance from construction activities.	During construction	Trails and parks located within the project area	SDG&E, CPUC
APM REC-2: Temporary Trail Detours. Where feasible, temporary detours will be provided for trail users. Signs will be posted to direct trail users to temporary trail detours.	CPCU verifies that SDG&E establishes temporary trail detours and posts signs for temporary detours.	Trail detours are established where feasible and signs for trail detours are posted.	During construction	Affected recreational trails within the project area	SDG&E, CPUC
Mitigation Measure Recreation-1: Pre- and Post-Construction Report. Prior to the start of construction, SDG&E shall prepare a Preconstruction Parks and Trails Condition Report that documents the existing condition of project work areas in preserves and parks (e.g., Black Mountain Ranch Community Park, Sycamore Canyon Park, Los Peñasquitos Canyon Preserve), and where multi-use trails are present in work areas, including both designated trails and unofficial trails along access roads. At a minimum, the report shall include text descriptions and accompanying photographs for each resource located in a work area. The Preconstruction Parks and Trails Condition Report shall be submitted to the CPUC no less than 30 days prior to construction. SDG&E shall repair all damage to parks and trails (e.g., rutting and ground disturbance) caused by construction vehicles and equipment once construction is completed in each work area in a timely manner (no more than 30 days). Following construction for the entire project, SDG&E shall prepare a Post-Construction Parks and Trails Restoration Report that documents the parks and trails restoration effort. The post-construction report shall describe which resources were impacted and avoided, as well as photographs of the impacted sites prior to and following restoration. The Post-Construction Parks and Trails Report shall be submitted to the CPUC for review and approval following completion of all repairs and no later than 60 days after construction completion in the area. SDG&E shall complete all park and trail repairs to the satisfaction of the CPUC.	A Preconstruction Parks and Trails Condition Report and a Post-Construction Parks and Trails Restoration Report are prepared by SDG&E, approved by CPUC, and implemented by SDG&E; CPUC verifies that all repairs to damaged parks are done satisfactorily.	Parks and trails affected by the Proposed Project are repaired after construction. A Preconstruction Parks and Trails Condition Report and a Post-Construction Parks and Trails Restoration Report are prepared.	Prior to construction – Preparation of Preconstruction Parks and Trails Condition Report; submittal to CPUC 30 days prior to construction Post-construction - Post-Construction Parks and Trails Restoration Report and park repairs	Affected parks and trails	SDG&E, CPUC
Mitigation Measure Recreation-2. Use of Existing Trails and Access Roads. SDG&E shall use existing trails and roads that are not marked for closure by park officials, for any temporary trail detours. Alternatively, SDG&E may place alternate access routes on the perimeter of project work areas in areas that have been surveyed and are free of sensitive biological or cultural resources. Alternative access routes within project work areas will be restored following construction.	CPUC verifies that SDG&E uses existing trails, paths, and walkways for temporary detours, establishes alternative access routes along perimeter of project work areas, as needed, and restores these areas post-construction.	Existing trails are used for temporary detours, alternate trails are placed along perimeter of project work areas, as needed, and alternate trails along project perimeters are restored following construction.	During construction – Use existing trails, paths, and walkways for temporary detours Post construction – restoration	Affected recreational trails within the project area	SDG&E, CPUC
Mitigation Measure Recreation-3: Maintain Access to Recreational Facilities. SDG&E shall coordinate the temporary closure of any public baseball or soccer fields and parking spaces with the City of San Diego and authorized park officer at least 90 days prior to construction within a park to avoid peak use of the facilities. SDG&E shall maintain a safe pedestrian access path between the parking lot and baseball fields during construction.	CPUC verifies that SDG&E coordinates with City of San Diego and the authorized park officer for any closure of any public baseball or soccer fields and parking space; CPUC verifies that SDG&E maintains a safe pedestrian access path between the parking lot and baseball fields.	Temporary closures of any public baseball or soccer fields and parking spaces avoid peak use of facilities and safe pedestrian access is maintained between the parking lot and baseball fields.	Prior to construction – SDG&E coordinates with City of San Diego and the authorized park officer 90 days prior to construction During construction – safe pedestrian access is maintained	Public baseball fields, soccer fields, and parking spaces affected by the Proposed Project	SDG&E, CPUC, City of San Diego, authorized park officer
Mitigation Measure Recreation-4. Flag Person at Trail Crossings. To avoid trail closures during overhead wire stringing, SDG&E shall position a flag person (similar to traffic controllers) at each trail crossing location to direct trail users when it is safe to pass.	CPUC verifies that SDG&E positions a flag man at each trail crossing location.	Trail closures are avoided	During construction	Trail crossing locations where overhead wire stringing activities occur	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Transportation and Traffic					
APM TR-1: Emergency Access. SDG&E will coordinate with local emergency response agencies during all construction within Carmel Valley Road.	CPUC verifies that SDG&E coordinates with local emergency response agencies during all construction within Carmel Valley Road.	Coordination with local emergency response agencies occurs prior to construction within Carmel Valley Road.	During construction	Segment B – Carmel Valley Road	SDG&E, CPUC
APM TR-2: Comply with Relevant Helicopter Use Restrictions. Any helicopter use will comply with all relevant usage restrictions including those imposed by the FAA and Caltrans. SDG&E and/or the construction contractor will coordinate with local air traffic control and comply with applicable FAA regulations regarding helicopter use to prevent conflict with air traffic generated by local airports. Helicopter usage will conform to acceptable hours for construction activities, as outlined within the applicable local noise codes and ordinances. As required, a Congested Area Plan (or CAP) will be prepared, based upon actual helicopter usage, pursuant to FAA regulations (14 CFR 137.51).	CPUC verifies that SDG&E complies with all relevant helicopter usage restrictions including those imposed by the FAA and Caltrans; a CAP is prepared by SDG&E according to FAA regulations and is reviewed by the FAA and CPUC.	Helicopter usage complies with all applicable laws, including those by FAA, Caltrans and the CAP.	During construction	Anywhere in the project area where helicopters will be used	SDG&E, CPUC, FAA
APM TR-3: Traffic Control. SDG&E will implement traffic control plans to address potential disruption of traffic circulation during construction activities and address any safety issues. These traffic control plans will be prepared by the project engineer or contractor and subject to approval by the appropriate jurisdictional agency, such as the City of San Diego and Caltrans.	Traffic control plans are prepared by SDG&E for the City of San Diego and/or Caltrans; CPUC verifies that the traffic control plans are approved by the City of San Diego and/or Caltrans.	A traffic control plan is approved by the appropriate jurisdictional agency and the measures in the traffic control plan are followed.	Prior to construction	Roads within project vicinity	SDG&E, CPUC, City of San Diego, Caltrans
APM TR-4: Encroachment Permits. SDG&E will obtain the required encroachment permits from the City of San Diego for crossings at city streets and Caltrans for work near I-15 and Hwy 56, and will ensure that proper safety measures are in place while construction work is occurring near public roadways. These safety measures include flagging, proper signage, and orange cones to alert the public to construction activities near the roadway.	SDG&E prepares and obtains the required encroachment permits from the City of San Diego and Caltrans and implement safety measures while construction work is occurring near public roadways; CPUC verifies that SDG&E obtains the required permits.	Encroachment permits from the City of San Diego and Caltrans are obtained. Proper safety measures are implemented and public safety is maintained.	Prior to construction	City crossings, and work areas near I-15 and Hwy 56	SDG&E, CPUC, City of San Diego, Caltrans
Mitigation Measure Traffic-1: Construction Transportation Management Plan. SDG&E shall develop and implement a project-specific Construction Transportation Management Plan (CTMP). SDG&E shall submit the plan to CPUC for review and approval at least 30 days prior to construction. The CTMP shall conform to the California Joint Utility Traffic Control Committee's Work Area Protection and Traffic Control Manual. The CTMP shall include provisions for the following: • Implementation of standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices. • Use of flaggers and/or signage to guide vehicles through or around construction zones using proper techniques for construction activities including staging yard entrance and exit. • Alternate traffic routes and the use of construction personnel carpools or shuttles to avoid roads that are operating at LOS D or lower. • Traffic detours for any road or lane closures with appropriate signage marking the detours. • Timing of worker commutes and material deliveries to avoid peak commuting hours. • Timing of lane and road closures. • Locations that would be accessed and receive material deliveries via helicopter. • Plans for construction worker parking and transportation to work sites • Methods for keeping roadways clean. • Storage of all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes sign visibility. • Limiting of vehicles to safe speed levels according to posted speed limits, road	A project-specific CTMP is prepared by SDG&E according to the provisions identified in this mitigation measure and requirements of the City of San Diego and City of Poway and is approved by CPUC and implemented by SDG&E.	A CTMP is approved by the CPUC, City of San Diego, and City of Poway. SDG&E follows the measures identified in the CMTP.	Prior to construction – submit CTMP to CPUC 30 days prior to construction Prior to construction – submit CTMP to City of San Diego and City of Poway 60 days prior to construction During construction – implementation of measures in CTMP	Roads used for the Proposed Project	SDG&E, CPUC, City of San Diego, City of Poway

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
conditions, and weather conditions. • Coordination with public transit providers. • Routing of trucks to avoid minor roads, where possible, to reduce congestion and potential asphalt damage. • Repair of asphalt and other road damage (e.g., curb and gutter damage, rutting in unpaved roads) caused by construction vehicles. • Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed. • Abiding by encroachment permit conditions, which shall supersede conflicting provisions in the CTMP. The CTMP must at a minimum comply with the requirements of the City of San Diego and the City of Poway and must be submitted to the respective cities for approval at least 60 days prior to commencing construction activities.					
Mitigation Measure Traffic-2: Helicopter Lift Plan. Prior to construction, helicopter contractors shall coordinate helicopter activities for the project with the regional FAA office and obtain any required approvals to operate helicopters. FAA coordination shall include submittal of a Helicopter Lift Plan prepared by the helicopter operator to obtain approval for the helicopter operations for all routes within 1,500 feet of residences or that would cross over "congested areas" as described in 14 CFR 133.33. The Helicopter Lift Plan will identify the location of the lift, anticipated work dates, a detailed description of the work to be performed, any required notifications or coordination to local agencies or adjacent property owners to restrict work area access, any safety hazard control measures that are required, and appropriate emergency procedures. Helicopter contractors shall provide the CPUC with all required approvals, documents, and conditions of work prior to conducting helicopter activities for the project.	A Helicopter Lift Plan with the information described in this mitigation measure is prepared by SDG&E and is approved by FAA; SDG&E obtains any other approvals from FAA and submits required approvals, Helicopter Lift Plan, documents, and conditions of work prior to conducting helicopter activities to CPUC for authorization of helicopter work.	The Helicopter Lift Plan is approved by FAA prior to construction and the measures in the Helicopter Lift Plan are implemented during construction.	Prior to construction – coordination and approvals During construction – follow measures in Helicopter Lift Plan	All helicopter routes within 1,500 feet of residences or that would cross over congested areas	SDG&E, CPUC, FAA
Mitigation Measure Traffic-3: Post-Construction Road Repair. Prior to construction, SDG&E shall conduct a pre-construction road condition assessment along Carmel Valley Road and entrances and exits to all staging yards. SDG&E shall submit the pre-construction road condition assessment to the CPUC and the local jurisdiction (e.g., City of San Diego or City of Poway). If damage to roads occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways within 60 days after the completion of construction at their own expense under the direction of and to the construction standard of the affected local jurisdiction to ensure that impacted roads are adequately repaired.	A pre-construction road condition assessment is prepared by SDG&E and is approved by CPUC and implemented by SDG&E.	A pre-construction road condition assessment is prepared. All damaged roads are repaired within 60 days after construction and according to the standards of the affected local jurisdiction.	Prior to construction – pre-construction condition assessment Post-construction – road repairs	Carmel valley road, entrances and exits to all staging yards, and affected roadways	SDG&E, CPUC
Mitigation Measure Traffic-4: Temporary Traffic Control Measures. To mitigate the risk of conductor falling onto traveled roadways during wire stringing operations, SDG&E shall temporarily close roads or incorporate temporary support measures to protect traffic, such as guard structures or netting across roadways that would catch and support the conductor above traffic, in the event that tension control of the conductor is lost during installation. The temporary measures to be incorporated shall be identified on construction plans and installed by SDG&E in advance of construction and shall remain in place until the conductor is clipped into support hardware on the transmission line structures. SDG&E shall implement all traffic control procedures and measures defined in Mitigation Measure Traffic-1 during installation of temporary support measures or temporary road closure.	CPUC verifies that SDG&E temporarily closes roads or incorporates temporary support measures (e.g., guard structures, netting) during wire stringing operations, installs temporary support measures in advance of construction, and follows the traffic control procedures during installation of temporary support measures or temporary road closures.	The risk of conductors falling is minimized with temporary road closures or use of temporary support measures. Temporary support measures are included in construction plans and are implemented prior to construction. Traffic control procedures are followed.	During construction	Wire stringing locations	SDG&E, CPUC
Mitigation Measure Traffic-5: Highway Closure Plans. SDG&E shall prepare and submit to Caltrans closure plans as part of the encroachment permit application. The plans shall require that closure or partial closure of SR-56 and I-15 be limited to off-peak, non-daytime hours, from 10 PM to 5 AM, and that signage be posted prior to the closure to alert drivers of the closure in accordance with Caltrans requirements. The plan shall also outline suggested detours to use during the closures, traffic, including routes and signage.	Closure plans are prepared as part of the encroachment permit application by SDG&E and is approved by Caltrans; CPUC verifies that SDG&E complies with the closure plan and verifies that signs for the public are posted.	A closure plan is submitted to Caltrans with the encroachment permit. The requirements in the closure plan are followed by SDG&E.	Prior to construction	Project areas near SR-56 and I-15	SDG&E, CPUC, Caltrans

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Traffic-6: Restrict Road Closures and Maintain Access. SDG&E shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 AM and between 3:30 and 6:30 PM, unless otherwise directed in writing by the responsible public agency issuing an encroachment permit. Underground work areas within intersections or traffic lanes shall be adequately covered with steel plating prior to 3:30 PM to allow uninterrupted traffic flow during peak traffic periods. All residents within 300 feet of proposed temporary lane or road closures shall be notified within 7 days of a temporary lane or road closure. SDG&E shall maintain travel through intersections at all times during construction. Access to driveways including entrances to residential communities shall be maintained at all times during construction. SDG&E or its construction contractors shall provide the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure driveway access to businesses and residences and shall provide continuous access to properties when not actively constructing the underground cable alignment.	CPUC verifies that SDG&E restrict lane closures to the hours identified in this mitigation measure, that steel plates are placed according to the provision in this mitigation measure, and that the public is notified.	Public access to roadways is maintained by following the measures identified in the mitigation measure.	During construction	Roads or lanes that will be closed by the Proposed Project	SDG&E, CPUC
Mitigation Measure Traffic-7: Closure Notification and Detours. Where construction results in temporary closures of sidewalks and other pedestrian facilities, SDG&E shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity results in bike route or bike path closures, appropriate detours shall be defined. Signs shall be placed along the closed bike path a minimum of 7 days prior to bike path closure notifying bicyclists of the proposed construction activities and duration of bike path closure. Notifications posted along the bike path shall include the locations of detours and alternate routes to avoid conflicts with the construction area.	CPUC verifies that SDG&E provides temporary pedestrian access and detours for closed bike routes or paths and notifies the public of bike path closures.	Access for pedestrians and bicyclists is maintained during construction.	During construction – Notification of a bike path closure will be placed 7 days prior to the closure	Sidewalks, other pedestrian facilities, bike routes, and bike paths that are temporarily closed during construction	SDG&E, CPUC
Mitigation Measure Traffic-8: Notify Emergency Personnel of Road Closures. SDG&E shall notify local emergency personnel (i.e., fire departments, police departments, ambulance, and paramedic services) at least 1 week prior to lane or road closures. The notice shall include location(s), date(s), time(s), and duration of closure(s), and a contact number for SDG&E project personnel.	CPUC verifies that SDG&E notifies local emergency personnel of any lane or road closures, at least 1 week prior to lane or road closures.	Local emergency personnel is notified of any lane or road closures.	During construction – 1 week prior to any parking space closures	Lane or roads that would be closed by the project	SDG&E, CPUC
Mitigation Measure Traffic-9: Notification of Temporary Parking Closures. SDG&E shall notify the public of any temporary parking space closures. Notification of temporary parking space closure shall be made through multiple media such as local newspapers and on-site postings at least 14 days prior to any closures.	CPUC verifies that SDG&E notifies the public of any temporary parking space closures via multiple medias, at least 14 days prior to any closures.	The public is notified of any temporary parking space closures.	During construction – 14 days prior to any parking space closures	Parking areas within the project vicinity	SDG&E, CPUC
Mitigation Measure Traffic-10: Avoid Parking Loss during Periods of Heavy Use. SDG&E shall coordinate with the City of San Diego Department of Parks and Recreation regarding the timing and location of stringing activities within Black Mountain Ranch Community Park. SDG&E shall avoid impacts to any parking spaces within the park during the periods of heavy recreational use identified by the City. SDG&E shall provide documentation of City of San Diego approval of use of the parking lot to the CPUC at least 30 days prior to any construction activities that would result in the loss of parking spaces within Black Mountain Ranch Community Park.	SDG&E coordinates with City of San Diego Department of Parks and Recreation to avoid impacts to any parking spaces within the park during the periods of heavy recreational use. SDG&E obtains approval from the City of San Diego Department of Parks and Recreation for any construction activities that would result in the loss of parking spaces within Black Mountain Ranch Community Park and SDG&E submits approval to CPUC.	Impacts to parking spaces within Black Mountain Ranch Community Park are avoided and minimized through coordination with the City of San Diego Department of Parks and Recreation.	Prior to construction – 30 days prior to construction activities that would result in the loss of parking spaces within Black Mountain Ranch Community Park, SDG&E submits approval of use of parking lots to CPUC	Parking spaces within Black Mountain Ranch Community Park	SDG&E, CPUC, City of San Diego Department of Parks and Recreation

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Utilities/ Public Services					
APM PS-1: Temporary Access. Where construction within existing public parks, preserves, and open space areas would not completely restrict access through these areas, and where necessary, SDG&E will create temporary foot and bicycle paths along with appropriate advanced notice and signage to direct and allow for the pedestrian and bicycle access through each affected park.	CPCU verifies that SDG&E creates temporary foot and bicycle paths, when necessary and provides appropriate advanced notification and signage to the public to direct and allow for the pedestrian and bicycle access through each affected park.	Pedestrian and bicycle access is maintained in affected parks	During construction	Affected public parks, preserves, and open space areas	SDG&E, CPUC
APM PS-2: Notification of Construction. SDG&E will provide the public with advance notification of construction activities. Concerns related to dust, noise, and access restrictions with construction activities will be addressed within this notification.	CPCU verifies that SDG&E notifies the public of construction activities prior to construction.	The public is notified of construction activities prior to construction.	Prior to construction	Vicinity of the Proposed Project	SDG&E, CPUC
APM PS-3: Coordination with Recreation Facilities. All construction activities will be coordinated with the authorized officer for each affected park, trail, or recreational facility prior to construction in these areas.	CPCU verifies that SDG&E notifies authorized officers of recreational facilities of affected parks, trails, or other recreational facilities, prior to construction.	Authorized officers of recreational facilities are notified of affect parks, trails, or other recreational facilities prior to construction.	Prior to construction	Parks, trials, or recreational facilities affected by the project	SDG&E, CPUC
APM PS-4: Signage. As needed, signs will be posted directing vehicles to alternative park access and parking, if available, in the event construction temporarily affects parking near trailheads.	CPCU verifies that SDG&E post signs directing vehicles to alternative park access and parking, if available.	Signs are posted directing vehicles to alternative parking in the event that construction affects parking near trailheads.	During construction	Trailheads near the project area that are affected by construction	SDG&E, CPUC
APM PS-5: Recreational Facility Repair. All parks, trails, and recreational facilities that are physically impacted during construction activities and are not directly associated with the new permanent facilities, will be returned to an approximate pre-construction state, while still allowing for SDG&E to safely operate and maintain the facilities, following the completion of the Proposed Project. SDG&E will replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.	CPUC verifies that SDG&E returns all affected parks, trails, and recreational facilities to an approximate pre-construction state and replace or repair any damaged or removed public equipment, facilities, and infrastructure in a timely manner.	All affected parks, trails, and recreational facilities will be returned to an approximate pre-construction state and all damaged or removed public equipment, facilities, and infrastructure will be replaced or repaired in a timely manner.	During construction	Parks, trails, and recreational facilities impacted by the project	SDG&E, CPUC
APM PS-6: Fire Prevention Plan and Monitoring. At the completion of each work day, construction crews will lock up and secure each worksite to prevent theft or vandalism associated with work equipment or supplies. SDG&E will also implement its project-specific fire plan, which will include private fire patrol monitoring as appropriate. Furthermore, SDG&E may have private security personnel monitoring construction sites where materials are stored, which may include the substations, staging yards and ROW.	CPUC verifies that SDG&E follows protocols to secure worksites including, fire patrol monitoring and using private security.	Prevent theft or vandalism of work equipment and supplies.	During construction – Upon completion of each work day.	Throughout entire project area	SDG&E, CPUC
Mitigation Measure Utilities-1: Reclaimed Water Use for Dust Control. The water supply for project construction activities (e.g., dust control, soil compaction) shall be obtained from non-potable sources and ensured in a water contract through a local water agency or district. SDG&E shall provide verification that water will be obtained from a non-potable source to the CPUC a minimum of 60 days prior to the start of construction.	CPUC verifies that SDG&E uses non-potable water during construction; SDG&E submits verification of non-potable water source to CPUC prior to construction.	Non-potable water is used during construction.	Prior to construction – SDG&E submits verification to CPUC 60 days prior to construction During construction – Use of non-potable water	Throughout entire project area	SDG&E, CPUC
Mitigation Measure Utilities-2: Coordinate with XO Communications. SDG&E shall coordinate the relocation of the ADSS communication line with NextLink (XO Communications) at least 30 days prior to the start of construction. SDG&E shall allow NextLink adequate time to either remove the ADSS communication line from the transmission corridor or move the line on to the new 230-kV structures prior to the removal of the existing H-frame structures.	CPUC verifies that SDG&E coordinates with NextLink to relocate the ADSS communication line at least 30 days prior to construction.	The ADSS communication line is removed from the transmission corridor or the line ADSS communication line is moved on to the new 230-kV structure prior to the removal of the existing H-frame structures.	Prior to construction – 30 days prior to construction	ADSS communication line within the vicinity of the project	SDG&E, CPUC

APM/Mitigation Measure	Monitoring/Reporting Action	Effectiveness Criteria	Timing	Location	Responsible Agency
Mitigation Measure Utilities-3: Notify Utility Companies and Adjust Underground Work Locations. SDG&E shall notify all utility companies with utilities located within or crossing SDG&E ROW and franchise agreement area to locate and mark existing underground utilities along the entire length of the alignment at least 30 days prior to construction. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, the project underground alignment shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering.	CPUC verifies that SDG&E notifies utility companies at least 30 days prior to construction and does not conduct any subsurface work that would conflict with a buried utility and prepares realignments of the project, if necessary.	Underground utilities are marked and if necessary, project is re-aligned.	Prior to construction - Utilities are notified at least 30 days prior to construction	Entire project area	SDG&E, CPUC
Mitigation Measure Utilities-4: Cathodic Protection. SDG&E shall prepare an AC interference study that evaluates the AC interference effects of the proposed 230-kV transmission line on nearby parallel metallic pipelines. The study shall construct a model using the maximum anticipated voltage for the proposed 230-kV transmission line and shall consider the construction details for the transmission line, including conductor arrangement. In addition, SDG&E shall identify utility facilities in the vicinity of the proposed 230-kV transmission line that may be susceptible to corrosion due to induced currents or voltages. For all utilities identified with a corrosion potential, SDG&E shall coordinate with the owner of the utility and use data gathered in the AC interference study to determine appropriate design measures to protect the utility from corrosion such as ground mats or gradient control wires for cathodic protection of the buried utility pipelines. The study, summary of coordination with potentially affected utilities, and details of any design measures to be installed shall be submitted to the CPUC for review and approval at least 60 days prior to initiation of construction.	An AC interference study is prepared by SDG&E according to this mitigation measure and is approved by CPUC and implemented by SDG&E.	AC interference study is prepared and the measures identified in the study are implemented. Utilities with some potential to be corroded are identified and measures are implemented to protect the utility from corrosion.	Prior to construction – report shall be submitted to the CPUC 60 days prior to construction	Entire project area	SDG&E, CPUC