CALIFORNIA PUBLIC UTILITIES COMMISSION

SAN DIEGO GAS & ELECTRIC
ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Mitigation Monitoring, Reporting and Compliance Program

October 2019

A.16-08-010/ D.19-07-007
State Clearinghouse No. 2018021027

Prepared for:
California Public Utilities Commission

Prepared by:
Environmental Science Associates

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MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM

San Diego Gas and Electric Company's Artesian 230 kV Substation Expansion Project (Decision No. D-19-07-007)

Introduction

This document describes the mitigation monitoring, reporting, and compliance program (MMRCP) to ensure effective implementation of the mitigation measures required for approval by the California Public Utilities Commission (CPUC, or Commission) of the application (No. A-16-08-010) by San Diego Gas and Electric Company (SDG&E) to construct, operate, and maintain the Artesian 230kV Substation Expansion Project (Project). The MMRCP includes all applicable measures proposed by SDG&E [Applicant Proposed Measures (APMs) not superseded by mitigation measures] and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less-than-significant levels.

The CPUC granted SDG&E a Permit to Construct[1] (PTC) for the Project on July 15, 2019, in conformance with the mitigation measures outlined in the Final Initial Study/Mitigated Negative Declaration (IS/MND) and included in this document. Following Project approval, this MMRCP serves as a self-contained general reference for the Project adopted by the Commission, to ensure that all measures are included and implemented as adopted.

California Public Utilities Commission – MMRCP Authority

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 the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a mitigation monitoring or reporting program when it approves a project and adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

[1] CPUC Decision 19-07-007, July 11, 2019. Granting San Diego Gas & Electric Company a Permit to Construct the Artesian 230kV Substation Expansion Project. Date of Issuance for Decision: July, 15, 2019.

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP as a working guide to facilitate not only the implementation of mitigation measures by the Project proponent, but also the monitoring and reporting activities of the CPUC and any monitors it may designate.

This MMRCP consolidates mitigation monitoring and reporting requirements prescribed by the CPUC as part of the CEQA record into one document; and outlines key actions and strategies SDG&E proposes to undertake to achieve its obligations relating to monitoring and reporting compliance with the final environmental commitments (mitigation measures and applicant proposed measures) for the Project, as identified in Table 4-1 of the Final IS/MND (provided as **Appendix A**).

Project Location and Overview

The Project is located between Rancho Santa Fe (to the west) and Poway (to the southeast), in the western portion of San Diego County, with elements located within both the City of San Diego and unincorporated County of San Diego, California.

The Project activities considered in the IS/MND comprise expansion and rebuilding of the existing 69/12 kilovolt (kV) Artesian Substation (including construction of a new connection to an existing 230kV transmission line); relocating existing underground power lines and constructing new underground getaways connecting the existing 69kV overhead lines and the new 230kV transmission line; modifications at the existing Bernardo and Rancho Carmel substations; replacing an existing conductor (reconductoring) for approximately 2.2 miles of a 69kV power line between the existing Artesian and Bernardo substations; and related infrastructure improvements. Reconductoring would involve removal and/or replacement of power poles, placement of new poles and other distribution line upgrades.

The IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the approved Project, and proposes mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impacts or less than significant impacts in the following resource areas:

- Aesthetics
- Agriculture and Forestry Resources
- Energy Conservation
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic

The IS/MND indicates that approval of the application would result in potentially significant impacts in the resource areas indicated below, and so identifies APMs and mitigation measures that have been accepted by SDG&E which, when implemented, would reduce impacts to levels below established thresholds of significance.

- Air Quality
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Noise and Vibration
- Utilities and Service Systems

Roles and Responsibilities

The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program, as the CEQA lead agency. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to less than significant levels. The CPUC has the authority to halt any activity associated with the approved project if the activity is determined to be a deviation from the approved project or the adopted APM and mitigation measures.

The Commission addresses its responsibility under Public Resources Code Section 21081.6 through a decision action regarding SDG&E's application. Commission approval of the application includes adoption of this MMRCP that includes the mitigation measures as well as the APMs, implementation of which are made a condition of approval by the Commission.

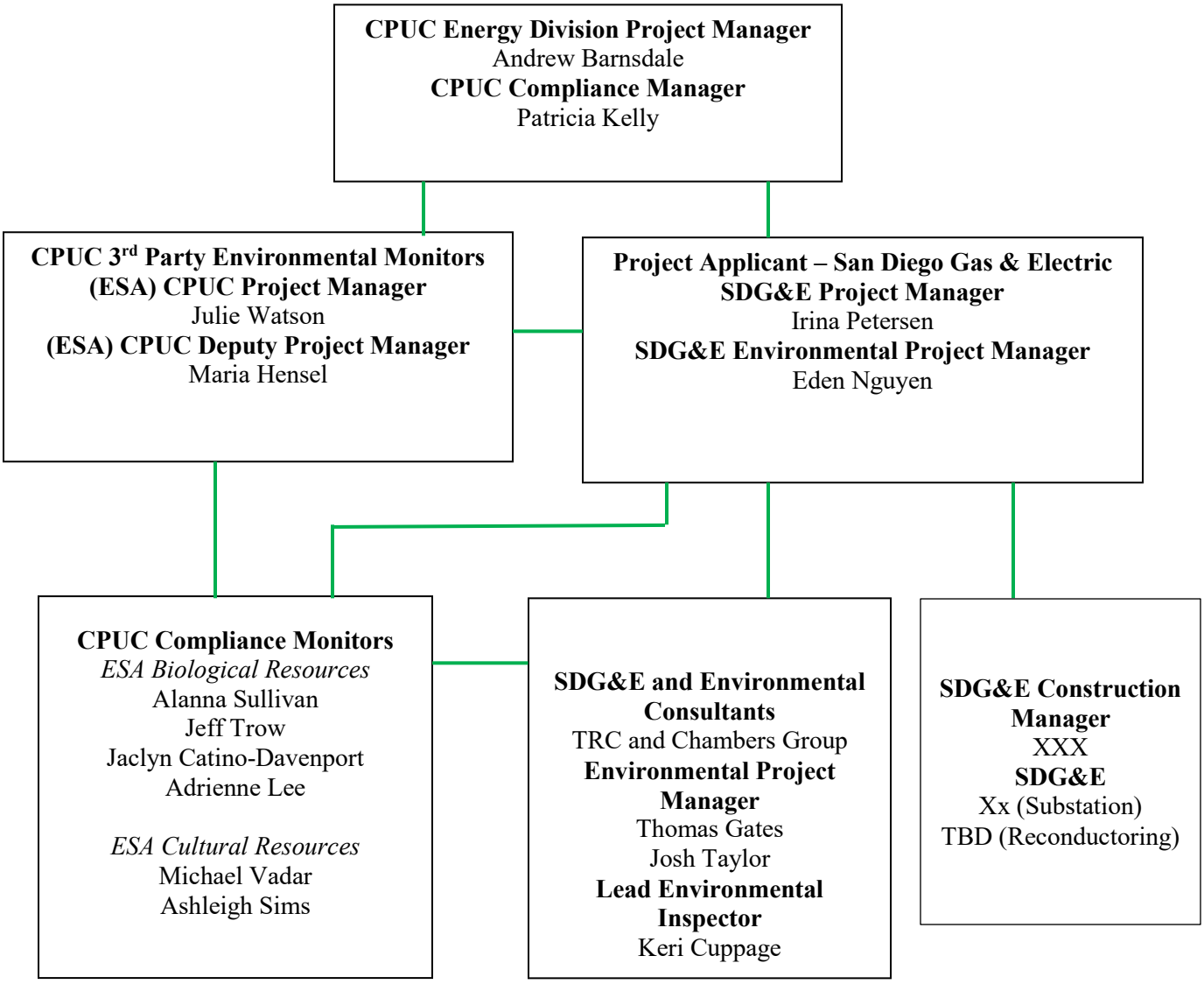
Although the CPUC approves SDG&E's application for authority to construct and operate the approved Project, SDG&E remains responsible for implementation of any mitigation measures governing both construction and future operation of the approved Project. Though other state and local agencies have permit and approval authority over some aspects of the Project, the CPUC acts as the lead agency for monitoring compliance with all mitigation measures required by the IS/MND. All approvals and permits obtained by SDG&E would be submitted to the CPUC for mitigation compliance prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include the construction and operation of the 230kV Artesian Substation, modifications to the existing Bernardo and Rancho Carmel Substations and reconductoring (transmission line replacement) of approximately 2.2 miles of existing power lines. The Project is proposed to provide additional capacity to serve long-term forecasted electrical demand, improve system reliability and provide operational flexibility.

The CPUC review concluded that with implementation of mitigation and applicant proposed measures, the Project would not result in any significant unmitigable impacts. All potential impacts would be less than significant or would be mitigated to less-than-significant levels. SDG&E has agreed to incorporated all recommended mitigation measures into the Project. The CPUC has included the stipulated mitigation measures as well as SDG&E's APMs as conditions of approval of the applications and has circulated a Draft IS/MND for public and agency review.

Figure 1 displays responsible staff and key communication pathways for the CPUC, designated CPUC third party monitoring team, the SDG&E project applicant team, SDG&E's environmental consultants, and construction management.

Figure 1 Organizational Chart



Legend: Green Lines depict the primary communications pathway[2]

[2] This organizational chart depicts primary communication pathways only and **does not preclude** communication among various CPUC or project proponent field staff (e.g., Compliance Monitors, Environmental Consultants, and Construction Leads/Managers) and/or all Environmental Managers.

Enforcement and Responsibility

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC is responsible for enforcing the procedures for monitoring through its mitigation monitor. The mitigation monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures.

Minor Project Refinements

The CPUC, along with its mitigation monitor, will ensure that any minor project refinement process, which will be designed specifically for the approved Project, or deviation from the procedures identified under the monitoring program would be consistent with CEQA requirements; no Project deviation will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, any deviation should be strictly limited to minor project refinements that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A refinement to the approved project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, a deviation may also require approval by a CEQA responsible agency.

Minor project refinements are limited to changes that do not trigger additional permit requirements (other than local government ministerial permits), do not increase the severity of an impact or create a new significant impact, and are within the geographic scope of the IS/MND. The CPUC, along with the CPUC CM, would evaluate any proposed changes from the approved project to determine whether they are consistent with approved CEQA requirements. If the CPUC determined the changes to be consistent with approved CEQA requirements, a requested change would be processed as a minor project refinement using the Minor Project Refinement Form (**Appendix B**). Requests for Minor Project Refinements must be made in writing. The CPUC PM or CM may request additional information, agency consultations, or a site visit in order to process the request.

Mitigation Compliance Responsibility

SDG&E is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMRCP. The MMRCP contains 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 will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

SDG&E shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC, in coordination with its mitigation monitor, will assess whether alternative mitigation is appropriate and specify to SDG&E the subsequent actions required.

Dispute Resolution

The MMRCP is expected to reduce or eliminate potential disputes between CPUC staff and the applicant concerning implementation of the adopted mitigation measures. Issues should first be addressed informally at the field level between the CPUC Environmental Monitoring Team and the SDG&E Environmental Compliance Team with questions that may be raised to the SDG&E ECPM, ECC, EPM, PM, or Construction Manager, as necessary. Should the issue not be resolved at the field level, the following procedure will be observed for dispute resolution between CPUC staff and the applicant:

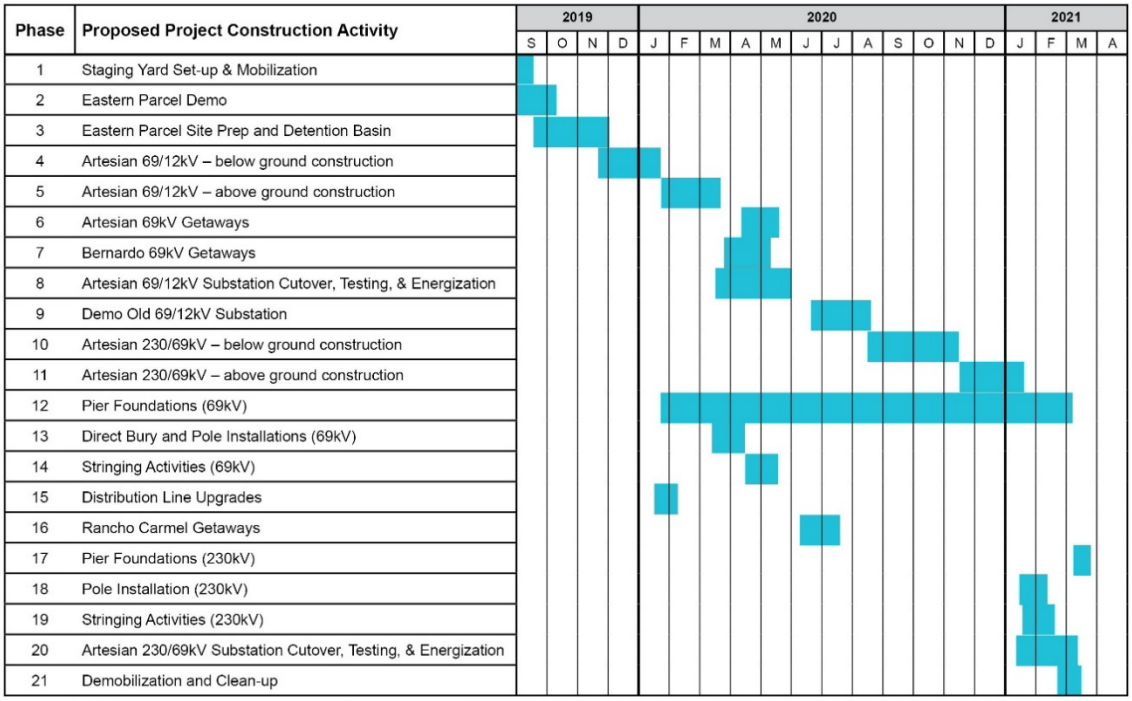
- Disputes and complaints should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project or MMRCP.

Construction Schedule and General Monitoring Procedures

Construction Schedule

In the event that situations requiring major changes pertaining to the construction schedule should occur, SDG&E will be expected to keep the CPUC environmental compliance team informed. The anticipated schedule for construction of the project is depicted in the **Figure 2**.

Figure 2 Anticipated Construction Schedule



NOTES: Source: San Diego Gas & Electric Company, 2018; Reused, 2019.

Communications

As clear communications are key to a successful environmental compliance program, the CPUC and SDG&E's environmental and construction personnel will maintain regular interaction in a manner that is professional and mutually responsive. Close coordination to address and resolve issues will be observed throughout the duration of the project's construction. This section presents a communication protocol to accurately and efficiently exchange information regarding site surveys, APMs, mitigation measures, construction activity, contractor oversight, and planned or upcoming work prior to the start of a given phase of construction. The protocols for communication may be refined to address specific issues as day to day construction proceeds.

Field Staff Communication

The CPUC compliance monitoring team, SDG&E, and construction staff can address many issues arising during construction through regular communication. All field staff will be equipped with cell phones, or two way radios to communicate in the field as needed. Offsite staff will be available during normal business hours via email or phone. A contact list for key staff is included as **Appendix C**. Changes to key staff should be reported to the CPUC Project Manager (PM) and Compliance Manager, as directly as possible. The contact list will be maintained and updated by the PM team.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMRCP, will be taken:

- SDG&E shall require all contractors to comply with the conditions of project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs and mitigation measures requiring their attention.

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the approved project. The CPUC and the mitigation monitor 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 mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMRP are followed.

SDG&E Monitoring and Compliance Reports

SDG&E's Lead Environmental Inspector (LEI) will be on site daily to coordinate environmental monitors and specialists, assist construction staff with the interpretation of APMs and mitigation measures, and to provide timely course corrections (in the event of compliance issues).

SDG&E will submit weekly status reports on Fridays communicating the anticipated construction activities for the upcoming week. The status reports will include the type of work activity (i.e., clearing vegetation, grading, trenching, or the construction of structures), locations for work activity, and the days for the planned activity. The CPUC compliance team will communicate with LEI to confirm daily work locations and schedule, as needed.

If SDG&E discovers a non-compliance incident of any magnitude, the CPUC must be notified. Non-compliance incidents may also be observed by CPUC compliance monitors and brought to the attention of SDG&E. To facilitate tracking for such incidents, a non-compliance incident report form is provided as **Appendix D**. SDG&E must track all non-compliance incidents and document the incidents and implementation of corrective actions in monthly reports.

Non-Compliance Incidents and Stop Work Orders

Through observations from the compliance monitoring team, the CPUC may determine if any construction activity deviates from permit conditions, NTP(s), APMs, or mitigation measures, particularly when the activity puts a sensitive resource at risk. Such activities should be considered a non-compliance incident. A non-compliance incident may include failure to fully comply with all terms and conditions in permits or approvals from other federal, state, and local agencies that are relied upon in the mitigation measures and APMs. This section addresses response and reporting procedures to be followed, in the event that incidents occur requiring documentation. The CPUC uses the following levels to categorize the severity of non-compliance incidents.

Level 1: Minor Problem. *Out of compliance (low to moderate severity).* **Definition:** A Level 1 non-compliance incident is an action that deviates from project requirements or results in incomplete or incorrect implementation of mitigation measures but does not result in an impact or put a resource at unpermitted risk.

> **Examples:** *Project personnel used an unauthorized turnaround area or access road, but the site was previously disturbed and the action did not put a sensitive resource at risk. Soil or construction material was placed outside of an approved work area in a non-sensitive area, but the material was removed at the end of the day. A vehicle not in use was observed idling for more than 5 minutes.*
>
> **Action:** A verbal warning shall be provided by the monitoring supervisor to SDG&E's Environmental Manager. Corrective action shall begin as soon as possible, no later than the following construction day. The minor problem shall be documented in the daily report and included in the weekly compliance report.
>
> **Follow Up:** If corrective action is not begun by the next construction day, the CPUC Monitoring Supervisor (or designee) will elevate the incident to the CPUC Monitoring Manager who will

review courses of action available and will notify the CPUC PM, if necessary. If allowed to continue, a minor problem could result in a significant impact to an environmental resource over time.

Level 2: Compliance Deviation. *Out of Compliance (moderate to high severity)*. **Definition:** A Level 2 non-compliance incident is an event or observation that deviates from project requirements or mitigation measures and puts a resource at risk, but is corrected without impacting the resource. A non-compliance Level 2 may be issued when Level 1 incidents are repeated.

Examples: *Project personnel used an unauthorized overland travel route and previously undisturbed turnaround area or access road, but the action did not impact a sensitive resource. Equipment or materials was mobilized to a previously disturbed site prior to receiving NTP authorization from CPUC.*

Action: A verbal notice shall be given to the SDG&E Lead Environmental Inspector or Environmental Manager, followed immediately by a written documentation as a project memorandum sent by the CPUC Monitoring Supervisor to SDG&E's Environmental Manager (or assigned designee). Corrective action shall begin immediately if feasible.

Follow Up: If corrective action is not taken immediately or is insufficient, the CPUC Monitoring Manager (or entity that identified the non-compliance incident) shall notify the CPUC Project Manager, who will review courses of action available, potentially including issuance of a non-compliance report, a project stop- work order, and/or an enforcement action under the CPUC CEQA Citation Program.

Level 3: Non-Compliance. *Out of compliance (high severity).* A Level 3 non-compliance incident is an action that violates project requirements and results in resource impacts. Such actions are not in compliance with the APMs, mitigation measures, permit conditions, and/or approval requirements (e.g. minor project changes, NTPs), and/or violate local, state, or federal law. A Level 3 non-compliance notice may also be issued if Level 2 incidents are repeated.

Examples: *Vegetation clearing and grading of a work site, in which a sensitive resource is impacted, prior to receiving NTP authorization from CPUC. Soil or construction material was placed outside of an approved work area in an environmentally sensitive area. Project vehicles entered a sensitive resource exclusion area and damaged a resource.*

Action: A written NCR form (see Appendix D) shall be submitted by SDG&E or the CPUC designated Environmental Monitor (depending on the entity that identified the non-compliance). Corrective action shall begin immediately. Based on the severity of a given infraction or pattern of non-compliant activity, the CPUC may direct that all or some portion of the work be stopped.

Follow Up: The CPUC may also exercise the CEQA Citation Program. If a shutdown of construction or an activity is ordered, the construction or activity shall not resume until authorized by the CPUC PM in writing. If corrective action is not taken immediately or the corrective action is insufficient, the CPUC EM shall notify the CPUC PM, and Monitoring

Manager or Supervisor, who will review courses of action available, potentially including a project stop work order and/or enforcement action under the CPUC's CEQA Citation Program.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. An example site inspection compliance form is provided as **Appendix E**. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. SDG&E shall provide the CPUC with written quarterly reports of the approved Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the approved Project. Quarterly or annual reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and SDG&E will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMRCP to ensure compliance during approved project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the approved project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Reporting, and Compliance Program

The table attached to this MMRCP as Appendix A presents a compilation of APMs and mitigation measures, as presented in Table 4-1 in the Final IS/MND. The purpose of the table is to provide a single comprehensive list of APMs, mitigation measures, implementing actions, monitoring and reporting requirements, and timing requirements for implementation.

APPENDIX A

Mitigation Monitoring, Reporting, and Compliance Program for the SDG&E Artesian 230/69 kV Substation Expansion Project

TABLE 4-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Aesthetics				
No mitigation required.				
Agriculture and Forestry Resources				
No mitigation required.				
Air Quality				
	MM AIR-1: Use of Tier-4 Engines SDG&E (and/or its construction contractor(s)) shall ensure that at least 89 percent of all diesel-powered equipment use (tracked as horse-power hours) during construction activities at Artesian Substation (defined as construction Phases 2, 3, 4, 5, 6, 8, 9, 10, 11, 17, 18, 19, and 20) is from equipment that meet USEPA-certified Tier 4 standards, the highest USEPA-certified tiered emission standards, or are otherwise equipped with Level 3 diesel particulate filters (DPFs). If DPF retrofits are not used as part of the construction fleet, a minimum of 83 percent of the equipment use hours shall be from equipment that are certified Tier 4. An initial listing that identifies each off-road unit's certified tier specification and/or diesel particulate filter status to be operated at the Artesian Substation shall be submitted to the CPUC for review and approval prior to commencement of construction activities at the Artesian Substation site. Construction activities at the Artesian Substation site shall not commence until the equipment listing has been approved by the CPUC. As SDG&E requires new or replacement construction equipment at the Artesian Substation site, SDG&E shall submit verification of the certified engine tier or Level 3 DPF retrofit prior to use on the Project. Prior to the commencement of construction, SDG&E and CPUC shall develop a diesel-powered equipment use hours tracking tool and procedure. The tracking tool shall be utilized by SDG&E (and/or its construction contractor(s)) to keep track of the daily equipment use hours of all diesel-powered equipment. If all diesel-powered equipment is either certified Tier 4 or is retrofitted with a Level 3 DPF, the tracking tool would not be required. The tracking tool shall be maintained by SDG&E and tracking updates shall be submitted to the CPUC on a weekly basis to track the Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the Wednesday of the following week.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during all phases of construction activities at the Artesian Substation Site.
Biological Resources				
	APM BIO-1: If work is scheduled to occur within suitable burrowing owl habitat (as determined in the Biological Technical Report), burrowing owl surveys will be conducted prior to construction consistent with the Take Avoidance Surveys described in the 2012 Staff Report on Burrowing Owl Mitigation. If burrowing owls are identified within approximately 150 meters (492 feet) of the proposed work area, SDG&E will coordinate with CDFW and implement the recommendations of said staff report to avoid impacts to burrowing owl.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to construction and during all phases of construction activities.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
	APM BIO-2: SDG&E will compensate for temporary and permanent impacts according to Table 7.4 of the SDG&E NCCP at a 2:1 ratio for permanent impacts, or at a mitigation ratio consistent with the surrounding Subarea Plans (SAP) if the SDG&E NCCP is not used.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance	Prior to onset of construction.
	APM BIO-3: Vegetation clearance in habitat for listed bird species will be conducted outside the nesting season (September 1 through January 31). If construction occurs during the nesting or breeding season for other birds, SDG&E will perform a site survey in the area where the work is to occur. This survey will be performed to determine the presence or absence of nesting birds. If an active nest is identified, (i.e., containing eggs or young) a suitable construction buffer will be implemented to ensure that the birds are not adversely affected. If the birds are federal or state-listed species, SDG&E will consult with the USFWS and CDFW as necessary. Monitoring of the nest will continue until the birds have fledged or construction is no longer occurring on site.	SDG&E and its contractors to implement measure as defined.	SDG&E biologist to coordinate with CDFW regarding construction activities within a nesting bird exclusion zone. CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction and during all phases of construction activities.
	APM BIO-4: SDG&E will complete a PSR for the entire Project area prior to construction to verify the location of rare plants. The plant survey for the PSR will be conducted during the appropriate blooming period for *Brodiaea filifolia*.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction.
	APM BIO-5: SDG&E will complete a PSR for the entire Project area prior to construction to verify the location of sensitive biological resources.	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction and during all phases of construction activities.
	APM BIO-6: Prior to the start of construction, SDG&E will conduct training of all project personnel regarding the appropriate work practices necessary to effectively implement the Proposed Project APMs, standard operating procedures, and to comply with the applicable environmental laws and regulations.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction. To be repeated for all new construction personnel.
	APM BIO-7: A biological monitor will be present during ground-disturbing and vegetation removal activities located within environmentally sensitive areas. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no sensitive species will be impacted.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Immediately prior to and during construction.
	APM BIO-8: If modifications to the pole work areas are required to conduct the work, SDG&E's on-site environmental monitors, as appropriate, will assist construction crews in the field to locate pole work areas that avoid and minimize impacts to sensitive environmental resources.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Biological Resources (cont.)				
	MM BIO-1: Plant Surveys. Consistent with the new 5-Year LE-HCP and the existing SDG&E Subregional NCCP, SDG&E will complete a PSR for the entire Project area prior to construction to verify the location of rare plants. Based on the PSR findings, to the extent feasible, the final project design shall avoid and minimize impacts on known special-status plant populations within and adjacent to the construction footprints, with complete avoidance of any non-covered federal or State-listed plant species. SDG&E and/or its contractors shall design facilities to avoid sensitive plant populations whenever possible, shall install exclusion fencing around sensitive plant populations within close proximity to proposed work areas and access routes with as large a buffer as possible to minimize the potential for direct and indirect impacts. Any special status plants that cannot be avoided will be mitigated under the terms of the PSR. Mitigation shall include relocation of plants and implementation of a Restoration and Mitigation Plan (see MM BIO-2).	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to final design and construction.
	MM BIO-2: Plant Salvage and Replanting. Where avoidance of non-listed plant species is not feasible even with the implementation of minimization efforts described under MM BIO-1, SDG&E and/or its contractors shall compensate for any loss through plant salvage and replanting, as follows: • A qualified ecologist shall develop a Restoration and Mitigation Plan according to CDFW guidelines and in coordination with CDFW. At a minimum, the plan shall include collection of complete plants or reproductive structures (as appropriate) from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, proposed restoration techniques for temporarily disturbed occurrences, an assessment of potential transplant and enhancement sites, a description of performance criteria, and a monitoring program to follow the progress of transplanted individuals.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	As part of final design and prior to construction.
	MM BIO-3: QCB compensation. Where avoidance of suitable habitat for QCB is not feasible, SDG&E shall compensate for the loss through habitat-based compensatory mitigation per the SDG&E Low-Effect Habitat Conservation Plan for the Quino Checkerspot Butterfly.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	As part of final design and prior to construction.
Cultural Resources				
	APM CUL-1: Native American monitoring may be implemented if substation, transmission, power or distribution 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.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.
Historical and Archaeological Resources	**MM CUL-1: Retention of Qualified Archaeologist.** Prior to the start of any ground disturbing activity, a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2008) shall be retained by SDG&E to carry out all mitigation measures related to archaeological resources.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to any ground-disturbance.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Historical and Archaeological Resources ***Historical and Archaeological Resources*** *(cont.)*	**MM CUL-2: Pre-construction Cultural Resources Sensitivity Training.** Prior to the start of any ground-disturbing activity, the qualified archaeologist shall prepare cultural resources sensitivity training materials for use during Project-wide Environmental Awareness Training (or equivalent). The cultural resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the qualified archaeologist. The qualified archaeologist shall determine and ensure the suitability of the qualified environmental trainer. The cultural resources sensitivity training shall be conducted for all construction personnel. Construction personnel will be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. SDG&E shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to any ground-disturbance.
	MM CUL-3: Restrictions on Work Outside of Designated Areas. Approved work areas will be established and construction crews shall be instructed to stay within the approved work areas and shall not conduct any Project-related work out side of the defined areas.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.
	MM CUL-4: Archaeological Monitoring. An archaeological monitor working under the supervision of the qualified archaeologist shall monitor all ground disturbing activities that occur within 100 feet of resources CA-SDI-11487, -11508, -5098, and -11744. Monitors shall have the authority to redirect work within 100 feet in the event of a discovery and provisions of MM CUL-5 shall be implemented. If ground disturbing activities are occurring simultaneously in areas located more than 500 feet apart, additional monitors shall be retained to adequately observe ground disturbing activities. The qualified archaeologist, in consultation with the CPUC and SDG&E, shall have the discretion to modify the monitoring requirements based on in-field observations of subsurface conditions. The archaeological monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of monitoring. The report shall be submitted to CPUC and SDG&E. A copy of the final report will be filed at the South Coast Information Center.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.
	MM CUL-5: Unanticipated Discoveries. In the event of the unanticipated discovery of archaeological materials all work shall immediately cease in the area (within approximately 100 feet) of the discovery until it can be evaluated by the qualified archaeologist. Construction shall not resume until the qualified archaeologist has conferred with CPUC and notified SDG&E's Cultural Resource Specialist and Environmental Project Manager regarding the significance of the resource. If it is determined that the discovered archaeological resource constitutes a historical resource or a unique archaeological resource under CEQA, avoidance and preservation in place is the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space,	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Historical and Archaeological Resources ***Historical and Archaeological Resources*** *(cont.)*	capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Treatment Plan shall be prepared and implemented by the qualified archaeologist in consultation with CPUC and SDG&E that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource. The qualified archaeologist and CPUC will consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resource, beyond that which is scientifically important, are considered.			
Paleontological Resources	**MM CUL-6: Retention of Qualified Paleontologist.** Prior to the start of any ground-disturbing activity, a qualified paleontologist meeting the Society for Vertebrate Paleontology's professional standards (SVP, 2010) shall be retained by SDG&E to carry out all mitigation measures related to paleontological resources.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
	MM CUL-7: Paleontological Sensitivity Training. Prior to start of any ground-disturbing activity, the qualified paleontologist shall prepare paleontological resource sensitivity training materials for use during Project-wide Environmental Awareness Program training (or equivalent). The cultural resource sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector [LEI] or equivalent position) working under the supervision of the qualified paleontologist. The qualified paleontologist shall determine and ensure the suitability of the qualified environmental trainer. The paleontological resources sensitivity training shall be conducted for all construction personnel. Construction personnel will be informed of the types of paleontological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources. SDG&E shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
	MM CUL-8: Paleontological Monitoring. A paleontological monitor working under the supervision of the qualified paleontologist shall monitor all ground-disturbing that involve the original cutting of previously undisturbed sediments associated with the Friars and/or Mission Valley Formations, as well activities associated with the installation of the 69kV and 230kV tubular steel poles and cable pole foundations. The paleontological monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. A cross-trained archaeological/paleontological monitor may conduct both paleontological monitoring and the archaeological monitoring described in MM CUL-4. After monitoring has been completed, the qualified paleontologists shall prepare a monitoring report that details the results of monitoring. The report shall be submitted to CPUC and SDG&E.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Cultural Resources (cont.)				
Paleontological Resources *(cont.)*	**MM CUL-9: Recovery of Paleontological Resources.** In the event of the discovery of paleontological resources, the paleontological monitor shall have the authority to divert or temporarily halt construction activities within 50 feet of the discovery to allow recovery of fossil remains in a timely fashion. The qualified paleontologist shall contact CPUCs Cultural Resource Specialist and SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. In conjunction with the CPUC's Cultural Resources Specialist and SDG&E's Cultural Resource Specialist and Environmental Project Manager, the qualified paleontologist shall evaluate the significance of the find and if it is determined that the discovery constitutes a significant resource under CEQA, a Paleontological Resources Treatment Plan shall be prepared and implemented by a qualified paleontologist in consultation with CPUC and SDG&E. The treatment plan shall include provisions for the recovery of the discovered fossils along with pertinent stratigraphic data, as well the recovery of small fossil remains, such as isolated mammal teeth, through the collection of bulk-sedimentary-matrix samples for off-site wet screening, as necessary. Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report shall be written. The report(s) documenting the implementation of the Paleontological Resources Treatment Plan shall be submitted to CPUC and SDG&E.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction.
Geology, Soils, and Seismicity				
No mitigation required.				
Hazards and Hazardous Materials				
Hazardous Materials	**MM HAZ-1: Use of Tier-4 Engines**. Implement MM AIR-1 regarding diesel-powered construction equipment emissions	SDG&E and its contractors to implement measure as defined	CPUC mitigation monitor to inspect compliance.	Prior to and during all phases of construction activities at the Artesian Substation Site.
Fire Hazards	**MM HAZ-2: Fire Safety.** SDG&E and/or its contractors shall prepare a project-specific Construction Fire Prevention Plan (CFPP) to ensure the health and safety of construction workers and the public from fire-related hazards. The appropriate fire departments shall be consulted during plan preparation and the CFPP will include fire safety measures as recommended. The CFPP shall list fire prevention, and extinguishment procedures and specific emergency response and evacuation measures that would be followed during emergency situations. The CFPP also would provide smoking and fire-related rules, storage and parking areas, usage of spark arrestors on construction equipment, and fire-suppression tools and equipment. The CFPP shall include, but not be limited to, the following: • SDG&E and/or its contractors shall have water tanks, water trucks, or portable water backpacks (where space or access for a water truck or water tank is limited) sited/available in the Project area for fire protection.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Fire Hazards *(cont.)*	• All construction vehicles shall have fire suppression equipment. • All construction workers shall receive training on the proper use of fire-fighting equipment and procedures to be followed in the event of a fire. • As construction may occur simultaneously at several locations, each construction site shall be equipped with fire extinguishers and fire-fighting equipment sufficient to extinguish small fires. • Construction personnel shall be required to park vehicles away from dry vegetation. • Prior to construction, SDG&E shall contact and coordinate with the appropriate fire departments to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks, water trucks, and/or water backpacks. SDG&E shall submit verification of its consultation with the appropriate fire departments to the CPUC. • The CFPP shall be submitted to CPUC staff for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction of the Project. • Cease work during Red Flag Warning events in areas where vegetation would be susceptible to accidental ignition by Project activities (such as welding or use of equipment that could create a spark). During Red Flag Warning events all non-emergency construction and maintenance activities would cease in affected areas.			
Hydrology and Water Quality				
No mitigation required.				
Land Use and Planning				
No mitigation required.				
Mineral Resources				
No mitigation required.				
Noise and Vibration				
	APM NV-1: For the few locations where the Proposed Project could exceed the noise ordinance limits during construction, SDG&E would meet and confer with the City and County to discuss temporarily deviating from the requirements of the Noise Code as necessary.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
	MM NV-1: Variance Request. If it is determined that construction activities are necessary during nighttime hours or on a Sunday, SDG&E shall submit a variance request to the County of San Diego and/or City of San Diego planning departments to work outside of allowed construction hours. SDG&E shall provide CPUC with evidence that it has obtained the variance(s) prior to commencing such work.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
	MM NV-2: Construction Noise Reduction Plan. To reduce daytime noise impacts due to construction of the Proposed Project near sensitive receptors, SDG&E shall develop a Construction Noise Reduction Plan (Plan). The Plan shall be submitted to the CPUC at least 60 days prior to the commencement of construction activities for review and approval. The Plan shall present specific measures that identify how the City and County construction noise limits of 75 dBA as an Leq over a workday at nearby sensitive receptor locations will be adhered to, including but not limited to the following measures: • When construction activities are conducted within 100 feet of sensitive receptor locations, noise barriers such as noise shields, barriers, blankets, or enclosures shall be used, where feasible, adjacent to or around noisy construction equipment. Noise control shields/barriers/blankets shall be made featuring weather-protected, sound-absorptive material on the construction-activity side of the noise shield/barrier/blanket. • Distribute to the potentially affected residences within 100 feet of Project construction a "hotline" telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. All complaints shall be logged noting date, time, complainants' name, nature of complaint, and any corrective action taken. • When construction activities are conducted within 100 feet of sensitive receptor locations, construction equipment and trucks will be equipped with enhanced noise control measures (where feasible and reasonably available). Enhanced noise control measures will be identified in the Plan and could include, but not necessarily be limited to improved exhaust mufflers and intake silencers, engine enclosures, noise shields or shrouds, etc. • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction within 100 feet of sensitive receptor locations shall be hydraulically or electrically powered where feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dB. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible. Note: If a noise reduction feature is not feasible, that does not alleviate the requirement to ensure that the noise levels are reduced to below the City and County of San Diego thresholds. • Stationary construction noise sources located within 100 feet of sensitive receptor locations shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent this does not interfere with construction.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction within 100 feet of sensitive receptor locations.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
	MM NV-3: Vibration Reduction Plan. Prior to any blasting construction, the Applicant shall develop a Vibration Reduction Plan in coordination with an acoustical consultant, geotechnical engineer, and construction contractor, and submit the Plan to the CPUC for approval at least 60 days prior to any proposed blasting. The Vibration Reduction Plan shall include vibration reduction measures to ensure that surrounding buildings will be exposed to less than 0.2 PPV to prevent building damage. At a minimum, the plan shall consider the following measures: • Evidence of licensing, experience, and qualifications of blasting contractors. • The Plan shall establish a vibration limit of 0.2 PPV at nearby structures in order to protect structures from blasting activities and identify specific locations for monitoring. At a minimum, a pre–blast survey shall be conducted of any potentially affected structures. • The Plan shall identify the appropriate size of the explosive charge to ensure that a vibration level of 0.2 PPV is not exceeded at nearby structures. • Impacted property owners shall be notified at least 48 hours prior to the visual inspections. • Post–construction monitoring of structures shall be performed to identify (and repair if necessary) any damage from blasting vibrations. Any damage shall be documented by photograph, video, etc. This documentation shall be reviewed with the individual property owners and SDG&E shall arrange and fund any needed repairs. Documentation of these efforts shall be provided to the CPUC.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.
	MM NV-4: Blasting Plan. Prior to conducting any blasting activities, SDG&E shall develop a Blasting Plan in coordination with an acoustical consultant, geotechnical engineer, and construction contractor. The Blasting Plan shall include at a minimum the following measures: • Methods of matting or covering of blast area to prevent excessive air blast pressure. • Description of air blast monitoring program. • Blasting shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. daily. • Blasting notification procedures, lead times, and list of those notified. Public notification to potentially affected sensitive receptors describing the expected extent and duration of the blasting.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
	MM NV-5: Nighttime Noise and Nuisance Reduction Plan. SDG&E and/or its contractors shall develop a Nighttime Noise and Nuisance Reduction Strategy Plan in the event that nighttime construction activity is determined to be necessary within 500 feet of sensitive receptors. The plan shall be submitted to the CPUC for review and approval prior to the commencement of nighttime construction activities. The strategy shall include a set of site-specific noise attenuation measures that apply state-of-the-art noise reduction technology to ensure that nighttime construction noise levels and associated nuisances are reduced to the extent feasible. The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Noise and Vibration (cont.)				
	• Plan construction activities to minimize the amount of nighttime construction. • Offer temporary relocation of residents within 200 feet of nighttime construction activities. • Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., auger rigs, generators, compressors, etc.). • Install temporary noise barriers that block the line of sight between nighttime activities and the closest residences within 500 feet. • The notification requirements identified in Mitigation Measure NV-2 shall be extended to include residences within 500 feet of pending nighttime construction activities.			
Population and Housing				
No mitigation required.				
Public Services				
No mitigation required.				
Recreation				
No mitigation required.				
Transportation and Traffic				
No mitigation required.				
Utilities and Service Systems				
	MM US-1: Construction and Demolition Debris Recycling Ordinances. The Applicant will comply with the minimum construction and demolition debris diversion requirements found within the local waste diversion ordinances. Specifically, the project will reuse, recycle, or other divert at least 90 percent of inert wastes, and at least 70 percent of all other non-hazardous solid waste, from disposal at landfills. In order to document and track such diversions, the applicant will provide the following: • Prior to construction, the Applicant will provide a preliminary Construction and Demolition Debris Register (Preliminary Debris Register) that lists all anticipated construction and demolition solid waste streams (by weight) along with how the project will dispose/divert each waste. The Preliminary Debris Register will also list the anticipated destination(s) (i.e., location or facility) for each waste stream. The Preliminary Register will document how the project will achieve the minimum waste diversion percentages.	SDG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to and during construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE SDG&E ARTESIAN 230/69 KV SUBSTATION EXPANSION PROJECT

Environmental Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/ Reporting Requirements	Timing
Utilities and Service Systems (cont.)				
	• During construction activities, the Applicant will keep records (e.g., a Log) on site documenting the disposal and/or diversion of all construction and demolition debris that leaves the project site. The Applicant will also keep copies of all corresponding receipts or similar documentation from solid waste facility, recycling center, green waste facility, or other permitted facility. • During construction activities, the Applicant will provide updates for solid waste diversion to the CPUC as part of the Quarterly Project Status Reports required by the MMRCP. • Following the completion of construction activities, the Applicant will provide a Final Debris Register that will document the final construction and demolition debris totals, destinations, and diversion percentages. The Final Debris Register will document the project's final compliance with the minimum diversion percentages.			

APPENDIX B

Minor Project Refinement Form

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Artesian Substation Expansion Project
CPUC Minor Project Refinement Form

[with instructions]

Minor project refinements *are strictly limited to changes that will not trigger an additional permit requirement (except local government ministerial permits and associated requirements), do not substantially increase the severity of a previously identified significant impact based on criteria used in the IS/MND, create a new significant impact, are located within the geographic boundary of the study area of the IS/MND, and that don't conflict with any mitigation measure or applicable law or policy.*

Date Requested: [date that form is submitted to CPUC Compliance Manager]

Report No.: [CPUC Compliance Manager fills in]

Date Approved: [date CPUC Compliance Manager sends the approved form back to applicant]

Approval Agency: [consider whether another agency or municipality must approve the requested change, and if applicable provide documentation of consultation/approval]

Property Owner(s):

Location/Milepost:

Land Use/Vegetative Cover:

Sensitive Resources: [Any resource that could be affected, directly or indirectly, by this action even if mitigation measures will reduce these impacts to less than significant]

Modification From:

☐ **Permit** ☐ **Plan/Procedure** ☐ **Specification** ☐ **Drawing**

☐ **Mitigation Measure** ☐ **Other:**_____

[Consider whether this change differs from a description in a document contained an official workplan, construction description, mitigation measure, or engineering drawing for this project component or activity? Include this document title in the description below.].

Describe how project refinement deviates from current project. Include photos.

What to include in this section:

- Original Condition: A concise description of the existing condition as it is originally described and approved (NTP, engineering specifications, IS/MND, etc.) – i.e., how did the applicant originally intend to build this/do this?
- Justification for change: A concise description of and justification for the change requested – i.e., what happened to make the change necessary?
    - These descriptions should be detailed enough and include enough background so that a person unfamiliar with the project should be able to follow the narrative about what the original plan was and why the new plan is needed instead.
    - The description should be in layman's terms to the extent possible. Be as specific as possible.
- Maps & Figures: The exact location(s)/project component(s) the change will affect. Include dimensions, if applicable. A map and/or figure is usually extremely helpful. Make sure the map is at a readable scale. Ideally, the map should be based on the most current project map and show other project components, survey areas, underlying topography, etc.
- Environmental Impact: Demonstrate that the applicant has considered how this change will affect environmental/cultural resources. List MMs, plans, permits, etc. that were reviewed in order to ensure that this change will not result in significant impacts.
    - Include analyses demonstrating that projected impacts will not be significant (e.g., narrative justification, tables, figures, calculations, etc.). Base this analysis on what was previously analyzed in the NTP, IS/MND, etc.
- Concurrence (if appropriate): Demonstrate that the applicant has considered whether other agencies, municipalities, utilities, etc. would need to provide concurrence with this MPR. If so, either provide anticipated contact/approval schedule, or provide dates/contact reports/emails with approvals.

Resources:

Biological ☐ No Resources Present ☐ Resources Present ☐ N/A, Change would not affect resources

Previous Biological Survey Report Reference: [Include dates of original "baseline" surveys (from IS/MND analysis) to prove that the areas/practices were previously analyzed. Include more recent preconstruction sweeps, if applicable, to prove that the applicant has an understanding of what resources are currently present in this new area or could be impacted by this new practice.]

Cultural ☐ No Resources Present ☐ Resources Present
☐ N/A, changes would not affect resources

Previous Cultural Survey Report Reference:

Disturbance Acreage Changes: ☐ Yes ☐ No

Original disturbance acreage: New disturbance acreage:

CEQA Section	Applicable	(Y) Define potential impact or (N) briefly explain why CEQA section isn't applicable. If (Y), describe original and new level of impact, and avoidance/minimization measures to be taken.
Geology, Soils, and Seismicity	☐ Y ☐ N	

CEQA Section	Applicable	(Y) Define potential impact or (N) briefly explain why CEQA section isn't applicable. If (Y), describe original and new level of impact, and avoidance/minimization measures to be taken.
Agency Consultation?	☐ Y ☐ N	[Add notes to specify whether agency consultation is necessary, and if so, provide brief summary of that consultation.]
Hazardous Materials and Waste	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Hydrology	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Cultural Resources	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Traffic and Circulation	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Air Quality	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Noise and Vibration	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Aesthetics/ Visual Resources	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	
Vegetation and Wildlife	☐ Y ☐ N	
Agency Consultation?	☐ Y ☐ N	

Approvals	Date	Name (print)	Signature	
San Diego Gas and Electric Project Manager				☐ Reviewed
San Diego Gas and Electric Environmental Project Manager				☐ Reviewed
CPUC Project Manager				☐ Approved ☐ Approved with conditions (see below) ☐ Denied

For CPUC Compliance Manager Use Only		
☐ **Refinement Approved**	☐ **Refinement Denied**	☐ **Beyond Authority**

Conditions of Approval or Reason for Denial:

Prepared by: **Date:**

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APPENDIX C

Expansion Project Contacts

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Artesian Substation Expansion Project Contacts

Name	Position			
Primary / Emergency Contacts:				
CPUC/ESA:				
Andrew Barnsdale	CPUC Energy Division Project Manager			
Patricia Kelly	CPUC Compliance Manager			
Maria Hensel	ESA Deputy Project Manager			
Alanna Sullivan	ESA Biologist/ Compliance Manager			
Irina Petersen	SDG&E Project Manager			
Eden Nguyen	SDG&E Environmental Manager			
Thomas Gates	SDG&E Project Specialist			
Keri Cuppage	SDG&E Environmental Compliance			
Richie Veihl	SDG&E Fire Specialist			
Joe Meeks	SDG&E Field Construction Advisor			
Jack Strumsky	SDG&E Security Lead			
Jeff Clemons	SDG&E Safety Lead			
Claudia Valenzuela	SDG&E Public Affairs Manager			
Josh Taylor	TRC Project Manager			
Laurie Gorman	Chambers Lead Environmental Inspector			
TBD	CONSRTUCTION PROJECT MANAGER			
TBD	CONSRTUCTION FOREMAN			
Secondary Contacts:				
San Diego Gas and Electric & Consultants:				
Rebecca Giles	SDG&E Regulatory Case Manager			
Leslie Nelson	SDG&E Biological Resources Lead			
Tamara Spear	SDG&E Aquatic Resources Lead			
Cheryl Bowden-Renna	SDG&E Cultural Resources Lead; Native American Liaison			
Andrew Phan	SDG&E SWPPP Lead			
Willie Gators	SDG&E Recycled Water Lead			
Brian Yim	SDG&E Air Quality Lead			

Name	Position			
Jennifer Davis	SDG&E Field Env. Representative			
Martin Solorzano	SDG&E Sharepoint Administrator			
Brian Cropper	Lead Biological & Aquatics Monitor (Chambers)			
Thomas Guymon	SWPPP Inspector and Recycled Water Site Supervisor			
Thomas Demere	Qualified Paleontologist (SDNHM)			
Sandra Pentney	Qualified Archaeologist (NWB)			
Julie Watson	ESA Project Manager			
Michael Vader	ESA Archaeologist/ Compliance Monitor			
Jaclyn Catino-Davenport	ESA Biologist/ Compliance Monitor			
Adrienne Lee	ESA Biologist/ Compliance Monitor			
Ashleigh Sims	ESA Cultural Resources Compliance Monitor			

APPENDIX D

Construction Non-Compliance Report

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Artesian Substation Expansion Project
Construction Non-Compliance Report

Incident Date:		Report No.:	
Date Submitted:		Location:	
Level:		Relevant Plan/Measure:	
Current Land Use:		Sensitive Resources:	

Description of Incident:
Pertinent Plans/Permits/Mitigation Measures:
Proposed Resolution:

Recommended timeline for follow-up:

Approvals	Date	Name (print)	Signature	Comments
CPUC Compliance Manager				
CPUC Compliance Monitor (if applicable)				
CPUC Project Manager (if applicable)				
SDG&E Environmental Project Manager (if applicable)				

Prepared by: _____ Date: _____

APPENDIX E

CPUC Site Inspection Form

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Artesian Substation Expansion Project
CPUC Site Inspection Form

Project:	Artesian Substation Expansion Project	Date:	
Project Proponent:	San Diego Gas & Electric	Report #:	
Lead Agency:	California Public Utilities Commission	Monitor(s):	
CPUC PM:	Andrew Barnsdale, Energy Division	AM/PM	
CPUC CM:	Patricia Kelly	Weather conditions:	
CPUC CM (ESA):	Alanna Sullivan	Start/End time:	

SITE INSPECTION CHECKLIST

WEAP Training	Yes	No	N/A
Has worker environmental awareness training been completed by all new hires (construction and monitors)?			
Are training logs maintained to demonstrate completion of training for new hires?			
Erosion and Dust Control (Air and Water Quality)			
Have temporary erosion and sediment control measures been installed?			
Are erosion and sediment control measures properly installed and functioning?			
Is mud tracked onto paved public roadways cleaned up in accordance with the project's SWPPP?			
Is dust control being implemented (i.e., access roads watered, haul trucks covered, streets cleaned on a regular basis)?			
Are work areas being effectively watered prior to excavation or grading?			
Is excessive fugitive dust leaving the work area?			
Equipment			
Are all vehicles observed maintaining a speed limit of 15 mph on unpaved roads?			
Are all vehicles/equipment observed arriving onsite clean of sediment or plant debris?			
Are vehicles/equipment turned off when not in use?			
Work Areas			
Is exclusionary fencing or flagging in place to protect sensitive biological or cultural resources?			
Are vehicles, equipment, and construction personnel staying within approved work areas and on approved roads?			
Are all excavations and trenches covered at the end of the day?			

Biology			
Have preconstruction surveys been completed for biological (burrowing owl, coastal California gnatcatcher, least Bell's vireo, rare plants) resources as appropriate?			
Are biological monitors present onsite?			
Are appropriate measures in place to protect sensitive habitat and/or drainages (i.e., flagging, signage, exclusion fencing, biological monitor, appropriate buffer distance enacted)?			
Have wildlife been relocated from work areas?			
Have impacts occurred to adjacent habitat (sensitive or non-sensitive)?			
Were any threatened or endangered species observed? If yes, list observations below:			
Are there wetlands or water bodies present near construction activities?			
Have there been any work stoppages for biological resources?			
Cultural and Paleontological Resources			
Are identified cultural/paleo resources that will not be relocated/salvaged marked for exclusion?			
Are archaeological and paleontological monitors onsite if needed?			
Are appropriate buffers maintained around sensitive resources (e.g. cultural sites)?			
Have there been any work stoppages for cultural/paleo resources?			
Hazardous Materials			
Are hazardous materials stored appropriately?			
Are procedures in place to prevent spills and accidental releases?			
Are appropriate fire prevention and control measures in place?			
Is contaminated soil properly handled or disposed of, if applicable?			
Work Hours and Noise			
Are night lighting reduction measures in place, as needed?			
Is construction occurring within approved hours?			
Are variances and public notification procedures in place if not within approved hours?			
Are noise control measures in place within 100 feet of sensitive receptors as needed?			

AREAS MONITORED (i.e., structure numbers, yards, or substations)
DESCRIPTION OF OBSERVED ACTIVITIES (i.e., mitigation measures of particular focus or concern, construction activity, any discussions with first-party monitors or construction crews)
MITIGATION MEASURES VERIFIED (Refer to MMRCP, e.g., MM BIO-5. Report only on MMs pertinent to your observations today)
RECOMMENDED FOLLOW-UP (i.e., items to check on next visit, minor issues to resolve)
COMPLIANCE SUGGESTIONS OR ADDITIONAL OBSERVATIONS (i.e., suggestions to improve compliance on-site, environmental observations of note)
COMPLIANCE SUMMARY Check all applicable boxes below to indicate new conditions or issues that have occurred since your last visit. Note this information on the monitoring datasheet and document with photographs. ☐ New biological or cultural discovery requiring compliance with mitigation measures, permit conditions, etc. ☐ Potential compliance incident(s) observed. Document incident(s) and potential for environmental resources to be impacted. ☐ New non-compliance issues reported by SDG&E monitors since your last visit. Describe issues and resolution under "compliance suggestions or additional observations" (above) and include SDG&E report identification number.

PREVIOUS NON-COMPLIANCE ITEMS REQUIRING FOLLOW-UP OR RESOLVED TODAY:

REPRESENTATIVE SITE PHOTOGRAPHS			
Date	Location	Photo	Description

REPRESENTATIVE SITE PHOTOGRAPHS			
Date	Location	Photo	Description

REPRESENTATIVE SITE PHOTOGRAPHS			
Date	Location	Photo	Description

REPRESENTATIVE SITE PHOTOGRAPHS			
Date	Location	Photo	Description

Completed by:	
Firm:	
Date:	

Reviewed by:	
Firm:	
Date:	

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