Decision **PROPOSED DECISION OF ALJ YACKNIN** **(Mailed 8/30/2016)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In The Matter of the Application of SAN DIEGO GAS & ELECTRIC COMPANY (U902E) for a Certificate of Public Convenience and Necessity for the Sycamore- Peñasquitos 230 Kilovolt Transmission Line Project.	Application 14-04-011 (Filed April 7, 2014)

DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE SYCAMORE- PEÑASQUITOS 230 KV TRANSMISSION LINE PROJECT

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DECISION GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE SYCAMORE- PEÑASQUITOS 230 KV TRANSMISSION LINE PROJECT

Summary

This decision grants San Diego Gas & Electric Company a certificate of public convenience and necessity for the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project, configured with Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) and subject to the mitigation measures identified in the Mitigation Monitoring and Reporting Plan. As the lead agency for environmental review, we find and certify that the Environmental Impact Report prepared for this project meets the requirements of the California Environmental Quality Act and that the ability of the proposed project to mitigate thermal overloads and avoid North American Electric Reliability Criteria reliability violations and to facilitate the delivery of renewable energy to San Diego are overriding considerations that outweigh its significant and unavoidable impacts on aesthetics, air quality, noise, and transportation and traffic.

The proceeding is closed.

1. Procedural Background

By this application, San Diego Gas & Electric Company (SDG&E) seeks a certificate of public convenience and necessity (CPCN) to construct the Sycamore-Peñasquitos 230 Kilovolt (kV) Transmission Line Project.[1] The proposed project would install a new 230 kV transmission line that would

[1] The Office of Ratepayer Advocates (ORA) filed a timely protest. There are no other parties to the proceeding.

replace existing, predominantly wood structures between the existing Sycamore Canyon and Peñasquitos Substations.

Pursuant to Public Utilities Code (Pub. Util. Code) Section 1001 *et seq.*, SDG&E may not proceed with its proposed project absent certification by the California Public Utilities Commission (Commission) that the present or future public convenience and necessity require it, and such certification shall specify the maximum prudent and reasonable cost of the approved project. In addition, pursuant to General Order (GO) 131-D, SDG&E may not proceed with its proposed project absent the Commission's determination that the project complies with the California Environmental Quality Act (CEQA)[2] and with the Commission's policies requiring the use of low-cost and no-cost measures to mitigate electric and magnetic field effects (EMF).

CEQA requires the lead agency (the Commission in this case) to conduct a review to identify the environmental impacts of the project, and ways to avoid or reduce environmental damage, for consideration in the determination of whether to approve the project, a project alternative, or no project. If (as it was the case here) the initial study determines that the proposed project will have a significant environmental impact, then the lead agency shall prepare an environmental impact report (EIR) that identifies the environmental impacts of the proposed project and alternatives, designs a recommended mitigation program to reduce any potentially significant impacts, and identifies, from an environmental perspective, the preferred project alternative. If the agency approves the project, it must require the environmentally superior alternative and identified

[2] CEQA is codified at Public Resources Code § 21000, *et seq.*

mitigation measures, unless they are found to be infeasible. The lead agency may not approve a project unless it determines that there are overriding considerations that merit project approval despite its unavoidable environmental impacts.

After the conduct of a prehearing conference on August 7, 2014, the assigned Commissioner issued a scoping memo and ruling on August 25, 2014, determining the issues to be resolved as follows, and setting the schedule for the proceeding:

1. Does the proposed project serve a present or future public convenience and necessity? This issue, along with issue no. 2, encompasses consideration of whether the proposed project is a cost-effective means of providing that service. It also encompasses consideration of whether the proposed project is needed to ensure the safe and reliable function of SDG&E's transmission system.
2. What is the maximum prudent and reasonable cost of the project (if approved)?
3. What are the significant adverse environmental impacts of the proposed project? This issue encompasses consideration of recreational and park areas (Pub. Util. Code § 1002(a)(2)), historical and aesthetic value (Pub. Util. Code § 1002(a)(3)), and influence on the environment (Pub. Util. Code § 1002(a)(4).)
4. Are there potentially feasible mitigation measures or project alternatives that will avoid or lessen the significant adverse environmental impacts? This issue encompasses consideration of how to design the proposed project in a manner that ensures its safe and reliable operation.
5. As between the proposed project and the project alternatives, which is environmentally superior?

6. Are the mitigation measures or project alternatives infeasible? This issue encompasses consideration of impacts on community values. (Pub. Util. Code § 1002(a)(1).)
7. To the extent that the proposed project and/or project alternatives result in significant and unavoidable adverse environmental impacts, are there overriding considerations that nevertheless merit Commission approval of the proposed project or project alternative?
8. Was the EIR completed in compliance with CEQA, did the Commission review and consider the EIR prior to approving the project or a project alternative, and does the EIR reflect our independent judgment?
9. Is the proposed project and/or project alternative designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures?
10. Does the project design comport with Commission rules and regulations and other applicable standards governing safe and reliable operations?

Evidentiary hearing was held on February 18 and 19, 2015, on issues 1, 2, 9, and 10.

The Commission's Energy Division issued the draft EIR on September 17, 2015, and the final EIR on March 7, 2016.

Upon stipulation of the parties, prepared testimony was received without cross-examination by ruling of the Administrative Law Judge (ALJ) dated June 3, 2016. The parties filed opening briefs on June 14, 2016, upon which the matter was submitted.

2. Project Need

Pub. Util. Code § 1001 conditions a utility's authority to construct or extend its line, plant or system on it having first obtained from the Commission a

certificate that the present or future public convenience and necessity require or will require such construction.[3]

SDG&E, with ORA's support, asserts that the proposed project is necessary to meet North American Electric Reliability Criteria (NERC), Western Electric Coordination Council, and California Independent System Operator reliability standards to avoid service interruptions. As SDG&E explains, "During periods of high customer demand and high energy imports, as well as during periods of high renewable energy generation in the Imperial Valley, most of the energy imported in San Diego flows across the 500 kV Southwest Powerlink and Sunrise Powerlink transmission lines. This imported energy then flows into the Miguel and Sycamore Canyon Substations, respectively. Heavy energy flows into these gateway substations can result in congestion and NERC reliability criteria violations on the 230 kV, 138 kV, and 69 kV transmission and power lines downstream, requiring dispatch of less efficient generation, increasing energy

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[3] § 1002(a) requires the Commission to consider, as a basis for granting a CPCN, community values, recreational and park areas, historical and aesthetic values, and influence on the environment. We consider the proposed project's impact on recreational and park areas, historical and aesthetic values, and the environment within the scope of issue numbers 3 ("What are the significant adverse environmental impacts of the proposed project?"), 4 ("Are there potentially feasible mitigation measures or project alternatives that will avoid or lessen the significant adverse environmental impacts?"), and 5 ("As between the proposed project and the project alternatives, which is environmentally superior?"), and balance such impacts against the proposed project's benefits in Part 8, below. We consider the proposed project's impact on community values, if any, in the context of issue number 6 ("Are the environmentally superior alternatives and/or mitigation measures infeasible?") in Part 7, below. (*See* CEQA Guideline § 15091(a), "No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects […]. The possible findings are: […] (c) Specific legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR.")

cost for ratepayers and eventually requiring upgrades to these downstream facilities." (Ex. 1, at. 1:20 -2:6.) The proposed project will allow energy to flow directly from the Sycamore Canyon Substation almost directly to the approximate San Diego load center, instead of forcing the energy to flow there directly through the existing 69 kV and 138 kV networks, thus mitigating thermal overloads and avoiding NERC reliability violations, and facilitating the delivery of renewable energy to San Diego.

3. Proposed Project Description and Environmental Impacts

The proposed project involves the following main components:

- Between Sycamore Canyon Substation and Carmel Valley Road (Segment A): (1) installation of approximately 8.31 miles of new 230 kV overhead transmission line (TL) on 37 new double-circuit 230 kV tubular steel poles (TSP) replacing existing wood H-frame structures; and relocation and reconductoring of an existing 138 kV power line with partial undergrounding for approximately 850 feet where the 138 kV power line enters Sycamore Canyon Substation
- Along a 2.84 mile segment of Carmel Valley Road (Segment B), installation of 230 kV underground TL between two new cable poles, and removal of one double-circuit lattice tower.
- Between Carmel Valley Road and Peñasquitos Junction (Segment C): (1) installation of one new TSP and approximately 2.19 miles of overhead 230 kV conductor on existing double-circuit steel lattice towers; and (2) reconductoring and bundling of two existing 230 kV TLs into one circuit on the same double-circuit steel lattice towers and new TSP. At Peñasquitos Junction—in the Del Mar Mesa Preserve—removal of one steel lattice tower.

- Between Peñasquitos Junction and Peñasquitos Substation (Segment D): (1) installation of one new TSP and approximately 3.34 miles of overhead 230 kV conductor on existing double-circuit steel lattice towers; (2) consolidation of two existing 69 kV power lines onto 17 new TSPs that would replace 15 existing wood H-frame structures and five wood monopoles; (3) replacement of existing wood poles outside of Peñasquitos Substation with two TSPs; and (4) removal of one existing 138 kV steel H-frame structure.
- Minor modifications to Sycamore Canyon, Peñasquitos, San Luis Rey, Chicarita, and Mission Substations, and reconfiguration of 230 kV power lines at Encina Hub.

The proposed project would have significant and unavoidable impacts on aesthetics, traffic and transportation, noise, and recreation.

The proposed project would have significant and unavoidable impacts on aesthetics during construction due to night lighting and glare. It would have significant and unavoidable impacts on aesthetics over its long-term presence due to visual contrast arising from the removal of vegetation, the construction of access roads and retaining walls, the presence of transmission structures, lighting, and Federal Aviation Administration (FAA) required marker balls, and long-term glare from specular conductor and steel poles.

The proposed project would have significant and unavoidable impacts on traffic and transportation during construction due to increased traffic flow, temporary lane and highway closures, heightened exposure to road hazards due to ingress and egress at staging yards and open trenches in roadways, heightened air traffic hazards from the use of helicopters, delays to emergency access, and the temporary loss of parking and temporary closure of bike/pedestrian paths due to the Black Mountain Ranch staging yard.

The proposed project would have significant and unavoidable impacts on noise during construction due to the use of equipment, vehicles, helicopters, and staging yards, and ground-borne vibration from blasting. It would have significant and unavoidable impacts on noise over its long-term presence due to a permanent increase in corona noise levels.

The proposed project would have significant and unavoidable impacts on recreation during construction due to the temporary closure of public recreation areas including parks and trails, and construction damage to recreational facilities, as well as environmental impacts stemming from the creation of temporary trail detours.

The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the Mitigation Monitoring and Reporting Plan (MMRP).

4. Project Alternatives

Pursuant to CEQA Guidelines § 15126.6(a), an EIR must consider a reasonable range of alternatives to the project that would feasibly attain most of the basic project objectives while avoiding or substantially lessening any significant effects of the project. An EIR must also evaluate the environmental impacts of a "no project" alternative. (CEQA Guidelines § 15126(e).)

The EIR identifies the following project objectives: (1) maintain long-term grid reliability in the absence of San Onofre Nuclear Generating System (SONGS) generation; (2) increase the efficiency of energy delivery to San Diego's load center; and (3) support the deliverability of renewable resources identified in SDG&E's Renewables Portfolio Standard portfolio. The EIR screened 43 project alternatives, but eliminated 38 of them for not meeting most or all of the project objectives, not reducing or avoiding one or more of the proposed project's

significant effects (or if it did, other effects were significantly increased), or not potentially feasible. The EIR fully evaluated two cable pole relocation alternatives, three transmission line routing alternatives, and the "no project" alternative.

Alternative 1 (Eastern Cable Pole Option 1b at Carmel Valley Road) would relocate the proposed project's tubular steel cable pole north of Carmel Valley Road (at the northern end of Black Mountain Ranch Community Park) to immediately south of Carmel Valley Road within existing SDG&E right-of-way. This alternative would replace an existing single-circuit wood H-frame structure that supports TL 13825 and would eliminate the need for an underground line and splice vault within the driveway and parking area of Black Mountain Ranch Community Park, thereby requiring a shorter underground segment than the proposed project. Alternative 1 would reduce significant and unavoidable impacts to recreation (i.e. duration of temporary park closure) and traffic and transportation (i.e. loss of parking) in Black Mountain Ranch Community Park. However, it would increase aesthetic impacts to Black Mountain Ranch Community Park, Black Mountain Ranch Open Space, and Carmel Valley Road.

Alternatives 2a and 2b (Eastern Cable Pole at Pole P40 and Underground Alignment through City Open Space or City Water Utility Service Road) would replace the use of a double-circuit monopole structure within Black Mountain Ranch Community Park with a cable pole within existing SDG&E right-of-way. From this cable pole, the cable alignment would travel either southwest through City of San Diego dedicated park land and Multiple Species Conservation Plan open space areas near Emden Road and Carmel Valley Road (Alternative 2a), or northeast within the SDG&E right-of-way and under a paved service road within the City of San Diego's Black Mountain Reservoir facility to Carmel Valley Road

(Alternative 2b). This alternative would reduce significant and unavoidable impacts to recreation (i.e., the duration of temporary park closure) and traffic and transportation (i.e., the loss of parking) in Black Mountain Ranch Community Park, and would have the least impact on visual quality of all the considered alternatives.

Alternative 3 (Los Peñasquitos Canyon Preserve-Mercy Road Underground) would install 5.9 miles of underground transmission line between two new cable poles, along Scripps Poway Parkway, Mercy Road, Black Mountain Road, and Park Village Road, avoiding 6.4 miles of overhead transmission line construction in the northern portion of the proposed project and eliminating the need for one new TSP in Black Mountain Ranch Community Park. This alternative would eliminate a substantial amount of visual impact to residents and biological resource impacts in Black Mountain Ranch Preserve and Del Mar Mesa Preserve. It would also substantially reduce noise impacts by eliminating construction-related helicopter use and operational corona noise in the northern portion of Segment A and all of Segment C. However, this alternative could cause temporary closure and physical deterioration of a trail junction within Los Peñasquitos Canyon Preserve. Underground construction would increase air quality impacts due to carbon dioxide and mono-nitrogen oxide emissions and transportation/traffic impacts due to increased duration of road closures.

Alternative 4 (Segment D 69 kV Partial Underground Alignment) would install an underground alignment from Del Mar Mesa to Peñasquitos Substation, avoiding the proposed project's installation of 2.8 miles of overhead transmission line along Los Peñasquitos Canyon Preserve in Segment D. The underground alignment within paved roads would avoid significant aesthetic impacts to the

community and biological resource impacts from new TSPs within Los Peñasquitos Canyon Preserve. It would also reduce noise impacts by eliminating the usage of helicopters to string the proposed project's 69 kV power lines. This alternative would increase temporary road closures, generate higher emissions from higher usage of diesel-powered equipment, and could cause temporary closure and physical deterioration of a trail and access road within Los Peñasquitos Canyon Preserve.

Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) would be routed almost entirely within a new alignment from the proposed project. It would run overhead for 2.8 miles between Sycamore Canyon Substation and Stonecraft Trail, where it would transition underground for 11.5 miles continuing west within Stonebridge Parkway to Pomerado Road, and then south on Pomerado Road to Interstate 15. Up to eight additional staging yards would be added for equipment and materials storage. Helicopter activities (landing and fueling) would not occur at these additional staging yards. This alternative would substantially reduce aesthetic and noise impacts on residential areas and avoid recreation impacts within the Black Mountain Ranch, Del Mar Mesa, and Los Peñasquitos Canyon Preserves. However, construction would result in significant and unavoidable impacts to air quality due to higher use of diesel-powered equipment. It would also result in greater impacts to traffic and transportation due to the need for more temporary road closures. Impacts to recreational areas in Sycamore Canyon Park would be the same as that of the proposed project, including temporary park closures during construction.

Under the No Project Alternative, the proposed project would not be built, and SDG&E would potentially face NERC reliability criteria violations.

Therefore, the No Project Alternative considers mitigation measures SDG&E would need to take to comply with NERC reliability criteria. The No Project Alternative would require construction of four additional transmission and power lines—mostly overhead—and reconductoring of three existing transmission and power lines. While it would avoid impacts within Black Mountain Ranch, Del Mar Mesa, and Los Peñasquitos Canyon Preserves, the No Project Alternative would require construction activity along 83 miles of overhead transmission and power lines (as opposed to the 13.9 miles proposed by the Project). This additional construction within the San Diego Wildlife Preserve would have a greater impact than the proposed project on critical habitat for special-status species—namely the coastal California gnatcatcher, Arroyo toad, Otay tarplant, and San Diego fairy shrimp. The No Project Alternative would also have greater impacts in all other resource areas, with the exception of fewer greenhouse gas emissions due to less underground construction.

5. Environmentally Superior Alternative

The EIR identifies Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) as the environmentally superior alternative. By undergrounding approximately 11 miles of overhead transmission line, Alternative 5 eliminates the need for tubular steel cable poles, conductors, marker balls, and retaining walls, preserving open space areas including within Black Mountain Ranch Community Park. As a result, significant and unavoidable impacts on recreational value would be avoided and significant and unavoidable impacts on aesthetics would be limited to the visual impacts caused by one cable pole. Alternative 5 would also substantially reduce significant and unavoidable noise impacts by reducing the potential for corona

noise and noise from helicopter use, and would reduce impacts on biological resources, hydrology and water resources, geology and soils, and fire and fuels.

6. Certification of the EIR

Pursuant to CEQA Guidelines § 15090(a), prior to approving a project the lead agency shall certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information contained in the EIR prior to approving the project, and that the EIR reflects the lead agency's independent judgment and analysis.

The Commission issued and distributed a Notice of Preparation on August 11, 2014, to inform the public and public agencies of its intent to prepare an EIR for the proposed project. The Commission also contacted 20 tribes to invite their participation in the scoping process. The Commission conducted three public scoping meetings, and met with the City of San Diego and a number of federal, state and local agencies. Scoping comments were received from four agencies, one tribe, seven organizations, and 122 individuals during and outside of the scoping period.

The Commission issued the draft EIR and distributed a Notice of Availability to the public and public agencies on September 17, 2015, and conducted two public workshops on September 28 and 29, 2015. The Commission received 135 comment letters during and outside of the 45-day public comment period (10 from public agencies and tribal governments; seven from community groups, private companies and private organizations; 118 from private individuals; and three from SDG&E). 127 of the 135 comment letters voiced support for Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead).

The final EIR was issued on March 7, 2016, and an Addendum was released on June 6, 2016, revising Mitigation Measures Utilities-1 and Utilities-3 in response to SDG&E's prepared testimony on this subject.

The final EIR documents and responds to all written and oral comments made on the draft EIR, as required by CEQA. As also required by CEQA, the final EIR examines the environmental impacts of the proposed project and six alternatives, including the No Project Alternative; it identifies their significant environmental impacts and the mitigation measures that will avoid or substantially lessen them, where feasible; and it identifies the environmentally superior alternative pursuant to CEQA. No party challenges the EIR's compliance with CEQA.

We have reviewed and considered the information contained in the EIR. We find that substantial evidence supports the EIR's findings, and we certify that the EIR was completed in compliance with CEQA, that we have reviewed and considered the information contained in it, and that, with the revisions to the mitigation measures reflected in the MMRP attached to this order, it reflects our independent judgment.

7. Infeasibility of Environmentally Superior Alternative

Where a project would have significant environmental effects, the Commission may not approve it without requiring the mitigation identified to reduce those effects unless the Commission finds that the identified mitigation or project alternative is infeasible for specific economic, legal, social, technological, or other considerations. No party contends that the environmentally superior alternative or the identified mitigation measures are infeasible, and we have no reason to find otherwise.

8. Overriding Considerations

Pursuant to CEQA Guidelines § 15093, the Commission may approve a project that results in significant and unavoidable impacts only upon a finding that there are overriding considerations. § 15093(a) describes the underlying analysis:

> CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable or adverse environmental effects, the adverse environmental effects may be considered acceptable.

As discussed in Part 2, above, the proposed project, configured as Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead), will mitigate thermal overloads and avoid NERC reliability violations associated with the delivery of energy, and facilitate the delivery of renewable energy, to San Diego. These benefits outweigh Alternative 5's unavoidable adverse environmental impacts on aesthetics, traffic and transportation, noise, and air quality.

9. Electric and Magnetic Field

The Commission has examined EMF impacts in several previous proceedings, concluding that the scientific evidence presented in those proceedings was uncertain as to the possible health effects of EMFs.[4] Therefore,

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[4] *See* Decision (D.) 06-01-042 and D.93-11-013.

the Commission has not found it appropriate to adopt any related numerical standards. Because there is no agreement among scientists that exposure to EMF creates any potential health risk, and because CEQA does not define or adopt any standards to address the potential health risk impacts of possible exposure to EMFs, the Commission does not consider magnetic fields in the context of CEQA and the determination of environmental impacts.

However, recognizing that public concern remains, we do require, pursuant to GO 131-D, Section X.A, that all requests for a permit to construct include a description of the measures taken or proposed by the utility to reduce the potential for exposure to EMFs generated by the proposed project. We developed an interim policy that requires utilities, among other things, to identify the no-cost measures undertaken, and the low-cost measures implemented, to reduce the potential EMF impacts. The benchmark established for low-cost measures is 4 percent of the total budgeted project cost that results in an EMF reduction of at least 15 percent (as measured at the edge of the utility right-of-way).

SDG&E submitted a Magnetic Field Management Plan (MFMP) for the proposed project in Appendix H to its application, and a MFMP for the alternatives in Attachment 3 to Exhibit 21. The plan provides that SDG&E will adopt the no-cost measures of locating power lines closer to center of the utility corridor to the extent possible (dependent on the location of other utilities within the roadway and separation requirements), increasing structure height of new structures in Segment A (a no-cost measure), and phasing circuits to reduce magnetic fields. The plan considers but rejects locating power lines closer to the center of the utility corridor where it is not possible due to the presence of other tie lines and separation requirements; it rejects reducing conductor spacing

because the design uses optimum phase spacing; it rejects phasing circuits because the design uses optimum phasing; it rejects the low-cost measure of additionally increasing structure height of new structures because it would not reduce the magnetic field by 15 percent or more; and it rejects increasing trench depth for the undergrounded line because it would not reduce the magnetic field by 15 percent or more.

We find that this design complies with the Commission's EMF decisions, and order SDG&E to apply it to the approved Sycamore-Peñasquitos 230 kV Transmission Line Project, configured as Alternative 5.

10. Design Conformance with Safety Regulations and Standards

The scoping memo identifies, as a stand-alone issue, the question of whether the project comports with Commission rules and regulations and other applicable standards governing safe and reliable operations. SDG&E testifies, and no party contests, that the proposed project comports with transmission planning standards, the design and construction rules set forth in GOs 95 and 128, and SDG&E's more stringent loading condition, clearance, pole composition (steel versus wood), and seismic loading standards. We find that the proposed project design conforms with applicable safety regulations and standards.

11. Maximum Cost Cap

Pub. Util. Code § 1005.5(a) requires that, whenever the Commission grants a certificate to construct an addition to an electrical corporation's plan estimated to cost greater than $50 million, the Commission specify a maximum reasonable and prudent cost for the facility. SDG&E testifies, and no party contests, that the estimated cost of the proposed project, configured as Alternative 5, is $259,670,632, including $41,882,360 in contingency, and provides the basis for the

cost estimate. We conclude that this is a reasonable and prudent maximum cost for the facility.

In its closing brief, ORA contends (without opposition from SDG&E) that the Commission should require SDG&E to request a reduced authorized budget if costs are lower than expected, and that the Commission should require SDG&E to file a Tier 3 advice letter if it exceeds the cost cap. The issue of whether or not the Commission should require these processes is beyond the scope of issues identified in this proceeding, and ORA's closing brief does not present a robust record upon which to consider the merits of its proposals. Accordingly, we do not reach or resolve the issue.

12. Comments on Proposed Decision

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with § 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. SDG&E and ORA filed comments on the proposed decision on September 19, 2016. The Commission adopts the proposed decision without change.

13. Assignment of Proceeding

President Michael Picker is the assigned Commissioner and Hallie Yacknin is the assigned ALJ in this proceeding.

Findings of Fact

1. During periods of high customer demand and high energy imports, as well as during periods of high renewable energy generation in the Imperial Valley, heavy energy flows into the Miguel and Sycamore Canyon Substations can result in congestion and NERC reliability criteria violations on the 230 kV, 138 kV, and 69 kV transmission and power lines downstream, requiring dispatch

of less efficient generation, increasing energy cost for ratepayers and eventually requiring upgrades to these downstream facilities.

2. The proposed project will allow energy to flow from the Sycamore Canyon Substation almost directly to the approximate San Diego load center, instead of forcing the energy to flow there directly through the existing 69 kV and 138 kV networks, thus mitigating thermal overloads and avoiding NERC reliability violations, and facilitating the delivery of renewable energy to San Diego.

3. The proposed project would have significant and unavoidable impacts on aesthetics during construction due to night lighting and glare, and over its long-term presence due to visual contrast arising from the removal of vegetation, the construction of access roads and retaining walls, the presence of transmission structures, lighting, and FAA required marker balls, and long-term glare from specular conductor and steel poles.

4. The proposed project would have significant and unavoidable impacts on traffic and transportation during construction due to increased traffic flow as a result of temporary lane and highway closures, heightened exposure to road hazards due to ingress and egress at staging yards and open trenches in roadways, heightened air traffic hazards from the use of helicopters, and the temporary loss of parking and temporary closure of bike/pedestrian paths due to construction works space requirements in the Black Mountain Ranch Community Park.

5. The proposed project would have significant and unavoidable impacts on noise during construction due to the use of equipment, vehicles, helicopters, and staging yards and ground-borne vibration from blasting, and over its long-term presence due to a permanent increase in corona noise levels.

6. The proposed project would have significant and unavoidable impacts on recreation during construction due to the temporary closure of public recreation areas including parks and trails, and over its long-term presence due to damage to recreational facilities and environmental impacts stemming from the creation of temporary trail detours.

7. The proposed project would not have any other significant impacts that cannot be mitigated to a less-than-significant level with the mitigation measures identified in the MMRP.

8. Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) is the environmentally superior alternative due to its substantially reduced impacts on aesthetics and noise and its avoidance of impacts on recreation within the Black Mountain Ranch, Del Mar Mesa, and Los Peñasquitos Canyon Preserves, notwithstanding that its construction would result in significant and unavoidable impacts to air quality and greater impacts to traffic and transportation due to the need for more temporary road closures.

9. The Commission has reviewed and considered the EIR.

10. The proposed project design conforms with applicable safety regulations and standards.

Conclusions of Law

1. The proposed project serves a public convenience and necessity.

2. The EIR was completed in compliance with CEQA, and it reflects the Commission's independent judgment and analysis on all material matters.

3. The ability of the proposed project configured as Alternative 5, to mitigate thermal overloads and avoid NERC reliability violations, and to facilitate the delivery of renewable energy to San Diego, are overriding considerations that

outweigh its significant and unavoidable impacts on aesthetics, air quality, noise, and transportation and traffic.

4. SDG&E's MFMP is consistent with the Commission's EMF policy for implementing no-cost and low-cost measures to reduce potential EMF impacts.

5. The reasonable and prudent maximum cost cap for the Sycamore-Peñasquitos 230 kV Transmission Line Project, configured as Alternative 5, is $259,670,632, including $41,882,360 in contingency.

6. Any pending motions should be deemed denied.

7. This proceeding should be closed.

8. This order should be effective immediately.

O R D E R

IT IS ORDERED that:

1. San Diego Gas & Electric Company (SDG&E) is granted a certificate of public convenience and necessity to construct the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project, configured with Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) and subject to SDG&E obtaining all permits and other approvals required and complying with the Mitigation Monitoring and Reporting Plan attached to this order.

2. The Commission's Energy Division may approve requests by San Diego Gas & Electric Company (SDG&E) for minor project refinements that may be necessary due to final engineering of the environmentally superior project, so long as such minor project refinements are located within the geographic boundary of the study area of the Environmental Impact Report (EIR) and do not, without mitigation, result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the

criteria used in the EIR; conflict with any mitigation measure or applicable law or policy; or trigger an additional permit requirement. SDG&E shall seek any other project refinements by a petition to modify today's decision.

3. The Environmental Impact Report is certified.

4. The maximum cost cap for the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project, configured with Alternative 5 (Pomerado Road to Miramar Area North Combination Underground/Overhead) is $259,670,632, including $41,882,360 in contingency.

5. All pending motions are deemed denied.

6. Application 14-04-011 is closed.

This order is effective immediately.

This order is effective today.

Dated _____, at San Francisco, California.

ATTACHMENT

MITIGATION MEASURES FOR APPROVED PROJECT (EIR ALTERNATIVE 5)

Mitigation Measure
Aesthetics
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, drought tolerant 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.
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.
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 drought-tolerant and compatible with the surrounding vegetation communities. Within City of San Diego Open Space Parks, vegetation shall consist of locally native species and shall be approved by the City of San Diego's MSCP Biologist. 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.
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.
Air Quality
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.
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.
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

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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 sustained (i.e., a period or periods of time aggregating more than 3 minutes in any 60 minute period) wind speed exceeds 20 miles per hour • Covering soil stockpiles
Mitigation Measure Air-4: Use of Tier 3 Equipment. SDG&E shall use 2007 and newer diesel-powered equipment and use available construction equipment that meet a minimum of EPA Tier 3 emission standards. Equipment with an engine not compliant with the Tier 3 standard will be allowed only when the applicant (SDG&E) has performed and documented a good faith effort (due diligence) to locate Tier 3 or newer equipment in the Project vicinity (defined as within 200 miles of the Project site). Use of older equipment would be allowable following due diligence and associated documentation that no Tier 3 or newer equipment (or emissions equivalent retrofit equipment) is available for a particular equipment type. Each case shall be documented with written correspondence (or signed statement and electronic mail) by the appropriate construction contractor, along with documented correspondence from at least two construction equipment rental firms providing equipment within the defined project vicinity (200 miles). Documentation of due diligence shall be submitted to CPUC staff before the non-Tier 3 compliant equipment is used on the project. The applicant shall submit as part of the weekly CPUC compliance report a log of all construction equipment used on the project including engine identification number and certified tier specification. The applicant shall provide information to CPUC on any equipment that may be used on the project prior to its use.
Biology
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 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

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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 in permitted areas. Smoking is not permitted within the City of San Diego Open Space. 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.
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 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. Avoidance of habitat for thread-leaved brodiaea is prioritized over minimization and mitigation.

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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 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

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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 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

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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.
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

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other protocols are met.

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 specifically for the Project area by qualified individuals with at least 5 years of weed control experience within San Diego County. The Weed Control Plan shall address control methods and issues controlling invasive non-native species within all vegetation communities and land cover types found along the Project alignment. 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 be submitted to the City of San Diego for final authorization of weed control methods, practices, and timing prior to implementation of any weed control within the City of San Diego MHPA.

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 where access permission is obtained, 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, MCAS Miramar (for ROW on MCAS Miramar), or City of San Diego (for ROW within the City of San Diego MHPA) as being a priority for control, (2) are 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), and (3) aid and promote the spread of wildfires in San Diego County. Prolific wildfire promoting species such as brome grasses (*Bromus* sp.) shall be mapped but not targeted for control outside of Project impact areas. 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 included in the Weed Control Plan or required by MCAS Miramar or City of San Diego.
- 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, MCAS Miramar and City of San Diego 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 be within an approved landfill area within San Diego County. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA for the Project, and with MCAS Miramar~~,~~ and City of San Diego 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 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, MCAS Miramar, and City of San Diego 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 also be certified weed free.
  - During project construction, vehicle and boot wash stations shall be provided.

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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.
Mitigation Measure Biology-6: Compensatory Mitigation for Impacts to Habitat. SDG&E shall restore temporarily impacted areas following construction according to the performance criteria described below 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 or until year 5 success criteria are met. SDG&E shall prepare a Habitat Restoration Plan that shall be subject to approval by the CPUC, USFWS, CDFW, City of San Diego (for restoration within City of San Diego MHPA), 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 below (from the EIR). 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, if applicable, the potential for reintroduction and/or increasing MSCP-covered species populations within habitat restoration areas if those covered species were affected by the Proposed Project.

Table 4.1-10 Required Habitat Mitigation Ratios

Vegetation Community	Mitigation Ratio	
	Temporary	Permanent[1]
Diegan Coastal Sage Scrub		
Diegan coastal sage scrub	1:1	1:1
Diegan coastal sage scrub in the MHPA	1:1	2:1
Diegan coastal sage scrub-Disturbed	1:1	1:1
Diegan coastal sage scrub-Disturbed in the MHPA	1:1	2:1

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Diegan coastal sage scrub-Revegetated	1:1	1:1
Diegan coastal sage scrub-Revegetated in the MHPA	---	2:1
Coastal Sage Scrub		
Coastal sage-chaparral scrub	0.5:1	1:1
Coastal sage-chaparral scrub in the MHPA	1:1	2:1
Chaparral		
Chamise chaparral	0.5:1	1:1
Chamise chaparral in the MHPA	1:1	2:1
Chamise chaparral-disturbed	0.5:1	1:1
Chamise chaparral-disturbed in the MHPA	1:1	2:1
Scrub oak chaparral	1:1	1:1
Scrub oak chaparral in the MHPA	2:1	2:1
Southern mixed chaparral	0.5:1	1:1
Southern mixed chaparral in the MHPA	1:1	2:1
Southern mixed chaparral-disturbed	0.5:1	1:1
Southern mixed chaparral-disturbed in the MHPA	1:1	2:1
Grassland		
Native grassland	1:1	1:1
Native grassland in the MHPA	2:1	2:1
Non-native grassland	0.5:1	1:1
Non-native grassland in the MHPA	---	2:1
Freshwater Marsh		
Freshwater marsh	---	1:1
Vernal Pool		
San Diego Mesa Vernal Pool	3:1	3:1
Riparian		
Southern riparian scrub	---	1:1
Mule fat scrub	---	1:1
Mulefat scrub in MHPA	---	2:1
Southern willow scrub	---	1:1
Southern willow scrub in MHPA	---	2:1
Tamarisk scrub in MHPA	---	2:1

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Southern coast live oak riparian forest	---	1:1
Southern coast live oak riparian forest in MHPA	---	2:1

Note:

[1] Mitigation ratios for permanent impacts are consistent with SDG&E's NCCP; 1:1 for permanent impacts outside a preserve and 2:1 for permanent impacts inside a preserve.

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 5 years or until success criteria are met. 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 above.
- 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 or implementing the Habitat Management Plan after the allowed timeframe of 18 months following the initiation of any vegetation disturbing activities) 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.

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. 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

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Miramar (as applicable) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by these agencies (as applicable) within 18 months of 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: • Adequate SDG&E funding for the preparation and implementation of the HMP • 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 5 days 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 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 the following buffers of active work areas: 0.25-mile buffer for white-tailed kite; 500-foot buffer for other 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 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

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work areas: (a) 0.25 mile for white-tailed kite, (b) 500 feet for raptors, Coastal California gnatcatcher, and least bell's vireo, (c) 250 feet for passerine birds in open space areas, or (d) 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). Where road use is limited to project-specific use, a buffer reduction or approval to drive through a buffer shall be obtained as described below under "Buffer Reduction". 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. This requirement includes buffer reductions or temporary buffer incursions for project-related use of roads where no stopping, standing, or other work activities shall occur in the buffer. Requests to reduce standard buffers or for temporary buffer incursions 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 • 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 existing baseline noise level for a site by more than 3 dB hourly average or an hourly average threshold of 60 decibels, whichever is higher, 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. The following measures shall be adhered to when project activities during the breeding season occur within riparian habitats that may support vireo and flycatcher: • A biologist knowledgeable of vireo and/or flycatcher biology and ecology, approved by the CPUC,

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USFWS, and CDFW, will survey within the project impact footprint and a 300-foot buffer (within riparian scrub) before clearing vegetation or project construction to check for vireo and/or flycatcher nesting activity. Should an active nest be located in the impact footprint, then work will be suspended until the nest is vacated. • Biological buffers of at least 100 feet will be maintained adjacent to active nests. For project activities during the breeding season adjacent to known occupied vireo and/or flycatcher nesting habitat, the biologist will monitor nesting bird activity. If the biologist determines that nesting birds are being disrupted by project activities, then work will be suspended until effective minimization measures (e.g., noise attenuation structures) developed in coordination with the CPUC, USFWS, and CDFW are in place or until after the breeding season is completed. Any lighting required during project activities will be shielded and directed away from vireo and/or flycatcher habitat to ensure that these areas are not artificially illuminated. ***Avian Protection on Power Lines.*** The project shall include collision-reducing techniques for transmission lines (based on Suggested Practices for Avian Protection on 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 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.
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.

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Mitigation Measure Biology-10: Mitigation for Special-Status Bat Species. Prior to construction, suitable special-status 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 special-status bat roosting habitat within a 100-foot buffer of active work areas (e.g., bridges). If an active special-status bat maternity roost is found in a tree or structure, the approved biologist shall define an appropriate limited or no-work exclusion buffer surrounding the special-status bat maternity roost. 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 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, CPUC, and City of San Diego (for ROW within and adjacent to City of San Diego MHPA) 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.
Cultural Resources
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 the CPUC-approved cultural resources specialist/archaeologist determines that the potential for cultural resources is low after initial ground-disturbance, the CPUC-approved cultural resources specialist/archaeologist may determine that monitoring is no longer required in that 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 and SDG&E's Cultural Resource Specialist 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

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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 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.
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.
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 California Native American Heritage Commission (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 remains shall be reinterred in the location they were discovered and 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 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
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

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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, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. 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 be provided a hard hat sticker listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on hard hat stickers shall be updated and redistributed to all construction personnel, and outdated hard hat stickers destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
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 be maintained per the Construction Transportation Management Plan (required by Mitigation Measure Traffic-1), and SDG&E shall notify residents and emergency personnel of road or lane closures as required by Mitigation Measures Traffic-6 and Traffic-8. 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.
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.
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

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vegetation along the entire length of the overhead transmission line and documenting the survey and results in a report submitted to the CPUC annually during construction. 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.
Geology, Soils, and Mineral Resources
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 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.
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.
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.
Greenhouse Gas Emissions
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.
Hazards and Hazardous Materials
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. SDG&E or its contractor shall prepare a site-specific blasting plan, notification requirements, and monitoring procedures for each blasting location

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proposed 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 City of San Diego for review and approval before blasting at each site. City-approved Blasting Plans shall be submitted to the CPUC for review prior to 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: Spill Prevention, Control, and Countermeasure 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 for sites that are subject to the SPCC program (e.g., sites where the total aggregate capacity of aboveground oil storage containers exceeds 1,320 gallons) that will identify spill prevention and response measures, systems, and devices. 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. Best Management Practices (BMPs) identified in the project Stormwater Pollution Prevention Plan (SWPPP) and spill prevention and response measures identified in the 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.
Mitigation Measure Hazards-3. Hazardous Substance Control and Emergency Response Plan. 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

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Control and Emergency Response Plan (HSCERP). The HSCERP 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 all hazardous materials shall be collected and stored in project-specific containers until they are transported to an appropriately licensed and permitted waste disposal facility. 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 measures 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.
Mitigation Measure Hazards-5. Soil and Groundwater Testing. Soil samples shall be taken from representative sampling locations prior to construction excavation near any open hazardous materials site and shall be tested to determine the presence and extent of hazardous materials. 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.
Mitigation Measure Hazards-6. Unexploded Ordnance Investigation. As part of the NEPA review and Tier 1

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application process required for construction within MCAS Miramar, SDG&E shall comply with Naval Sea Systems Command (NAVSEA) OP 5 safety requirements for shore-based operations. 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. SDG&E shall obtain a trained contractor for the pre-construction survey, personnel training, and removal of all unexploded ordnance that are found in the Project area. 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 the trained contractor. To comply with NAVSEA OP 5 requirements, all personnel involved in excavation, grading, or ROW clearing shall be educated by the trained contractor to recognize unexploded ordnance.
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.
Hydrology and Water Resources
Mitigation Measure 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). If dewatering of contaminated groundwater is necessary, the water shall be disposed of in accordance with all applicable laws and procedures described in the SWPPP.
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.
Mitigation Measure Hydrology-4: Underground Construction Only During Dry Conditions. Construction of the underground transmission line across any creeks or natural drainages shall only occur when the watercourse is dry and no less than 72 hours after any rain event. No construction shall occur within any stream, or other aquatic resource within 48 hours of a rain event with a forecast of 50 percent or greater chance of precipitation. A CPUC-approved aquatic resource monitor shall evaluate all work areas where construction is on-going after a rain event to determine if conditions are dry enough to resume construction activities. No earthwork shall occur within any Water of the State prior to SDG&E obtaining Waste Discharge Requirements or Section 401 Water Quality Certification from San Diego Regional Water Quality Control Board.
Mitigation Measure Hydrology-5: Protection from Scour. At locations where the buried power line is to be at or adjacent to a stream bed capable of scour, the power line shall be located below the expected depth of scour from a

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100-year flood, or otherwise protected from exposure by scour which, for purposes of this mitigations measure, also includes lateral (streambank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event. Plans for burying the line below the 100-year scour depth, or otherwise protecting the line from erosion, shall be submitted to CPUC for review and approval prior to construction.
Noise
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 public areas, including recreational use areas, within 300 feet of the project alignment and construction work areas. The announcement shall state where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide 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.
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 Sunday 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 Sundays 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 a construction noise permit 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 construction noise permit 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 construction noise permit. • 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 and schools are located within 300 feet of the equipment and where adequate room for sound walls or acoustic blankets exists. The sound walls or acoustic blankets shall have a height of no less than 3 feet greater than noise-generating piece(s)

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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. If sound walls or acoustic blankets would not reduce noise levels to below acceptable limits or if an oversight agency (i.e., City of San Diego or Caltrans) does not approve of the installation of sound walls within encroachment permits and/or traffic control plans, SDG&E shall offer to relocate affected residents depending on the location of the residences and the level of construction noise for the duration of the noise-generating activity. • 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.
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 7 PM in the City of San Diego and 7 AM to 5 PM in the City of Poway. 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.
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.
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.
Mitigation Measure Noise-6: Coordinate Construction Activity with Schools. SDG&E shall coordinate with local schools at least 48 hours prior to helicopter and construction activities within 1,000 feet of a school to schedule helicopter activities and transmission line construction activities, including power pole installation and trenching activities. SDG&E shall file a Congested Area Plan with the FAA (see Mitigation Measure Traffic-2) and file all relevant helicopter information with the Department of Transportation Aeronautical Division when using helicopters to conduct transmission line construction activities with 1,000 feet of a school. 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 occur within 1,000 feet of school property at least 30 days prior to helicopter use.

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Paleontological Resources
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 qualified paleontological monitor under the direction of 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.
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.
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. If the resource is determined to be unique, 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.
Recreation
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.
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.
Transportation and Traffic
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:

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• 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 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 appropriate City and must be submitted to the respective cities for review and approval at least 60 days prior to commencing construction activities.
Mitigation Measure Traffic-2: Congested Area 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 Congested Area Plan prepared by the helicopter operator to obtain approval for the helicopter operations for all routes that would cross over "congested areas" as described in 14 CFR 133.33. The Congested Area Plan will identify anticipated work dates, a detailed description of the work to be performed, any safety hazard control measures that are required, and appropriate emergency procedures and emergency landing area(s). Helicopter contractors shall provide the CPUC with all required approvals, documents, and conditions of work prior to conducting helicopter activities for the project.
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.
Mitigation Measure Traffic-4: Temporary Traffic Control Measures. Prior to conductor stringing, SDG&E shall determine whether a temporary road closure or temporary support measures to protect traffic, such as guard structures or netting across roadways that would catch and support the conductor above traffic, would be necessary in the event that tension control of the conductor is lost during installation. The selected 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

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temporary support measures or temporary road closure.
Mitigation Measure Traffic-5: Highway Closure Plans. SDG&E shall prepare and submit to Caltrans closure plans as part of the encroachment permit application at least 30 days prior to crossings of SR-56 and I-15. 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. Highway closure times will be reviewed and approved by Caltrans to minimize delay to SR-56 and I-15 traffic. The plan shall also outline suggested detours to use during the closures, traffic, including routes and signage. No work shall begin in Caltrans right-of-way until the encroachment permit and Highway Closure Plan are approved by Caltrans. Should emergency evacuation occur prior to or during the highway closure, the closure shall be delayed or ceased to allow unimpeded flow of traffic.
Mitigation Measure Traffic-6: Restrict Road Closures and Maintain Access. SDG&E shall restrict all necessary lane closures or obstructions 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. SDG&E shall coordinate with schools prior to construction within 1,000 feet of school property to ensure entryways to schools are not blocked during peak drop-off and pick-up hours. 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 at least 7 days prior to 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 schools, businesses, and residences and shall provide continuous access to properties when not actively constructing the underground cable alignment. In the event of a nearby fire or other emergency, steel plating shall be placed over underground work areas and construction equipment shall be removed from the partially or fully closed roadways, as needed, to permit uninterrupted traffic flow.
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.
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.
Mitigation Measure Traffic-11: Close Roadside Parking During Vault Installation. Roadside parking shall be prohibited within 100 feet of vault installation areas at least 8 hours prior to vault installation activities. SDG&E shall post notices of the parking closure at least 72 hours prior to vault installation. The notices shall define the location of the parking closure and the dates that no parking will be allowed in the area.
Mitigation Measure Traffic-12: Consult with Bus and transit Services. SDG&E shall consult with the San Diego Metropolitan Transit System and City of San Diego School District at least one month prior to construction to coordinate construction activities adjacent to bus stops. If necessary, bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. SDG&E shall post notices of any temporary bus stop closure at least 14 days prior to temporary closure. The notices shall provide information on the nearest available bus stop on the bus route and the scheduled duration of closure.

Mitigation Measure
Utilities/ Public Services
Mitigation Measure Utilities-1: Non-Potable 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, except where jurisdictional or regulatory requirements restrict the use of non-potable water for a specified construction activity or during limited periods when non-potable water sources are offline and not available. SDG&E shall provide verification that water will be obtained from a non-potable source, or verification of the specific circumstances, requirements, and time frame during which potable water will be used, to the CPUC a minimum of 60 days prior to the start of construction.
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. In instances where separation between City of San Diego sewer mains and the underground duct bank alignment is less than 10 feet, SDG&E or its contractor shall submit the intended construction methodology to the City of San Diego Public Utilities Department Water and Sewer Development Section for review and comment at least 30 days prior to construction. Construction methods shall be adjusted as feasible, safe and consistent with good utility practice to assure that the integrity of existing sewer mains is not compromised.
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.

(END OF ATTACHMENT)