Decision 12-06-039 June 21, 2012

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 Permit to Construct Electrical Facilities With Voltages Between 50 kV and 200 kV and New Substations With High Side Voltages Exceeding 50 kV: The East County Substation Project.	Application 09-08-003 (Filed August 10, 2009)

Allen K. Trial, for San Diego Gas & Electric Company, Applicant.
Jeanne B. Armstrong, for San Diego Rural Fire District.
Stephen C. Volker, for Backcountry Against Dumps.

DECISION GRANTING SAN DIEGO GAS & ELECTRIC COMPANY A PERMIT TO CONSTRUCT THE EAST COUNTY SUBSTATION PROJECT

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DECISION GRANTING SAN DIEGO GAS & ELECTRIC COMPANY A PERMIT TO CONSTRUCT THE EAST COUNTY SUBSTATION PROJECT

1. Summary

This decision grants San Diego Gas & Electric Company a permit to construct the East County Substation Project, configured to include the ECO Substation Alternative Site combined with the ECO Partial Underground 138 kilovolt Transmission Route Alternative, with mitigation identified in the Mitigation Monitoring, Compliance, and Reporting Program attached to this order. This proceeding is closed.

2. Procedural Background

By this application, San Diego Gas & Electric Company (SDG&E) seeks a permit to construct the East County Substation (ECO Substation) Project, which includes a new 500/230/138 kilovolt (kV) electric substation, a new 500 kV transmission line of approximately 3,065 feet to loop the substation into the existing 500 kV Southwest Powerlink transmission line, rebuild of the Boulevard Substation to operate at 138/69/12 kV on a new parcel adjacent to the existing substation, a new 138 kV transmission line of approximately 13.3 miles from the ECO substation to the rebuilt Boulevard Substation, and a microwave communication relay system.

Pursuant to General Order 131-D, the Commission must find that the project complies with the California Environmental Quality Act (CEQA).[1] CEQA requires the lead agency (the Commission in this case) to conduct a review to identify environmental impacts of the project, and ways to avoid or reduce

[1] Public Resources (Pub. Res.) Code Section 21000 *et seq.*

environmental damage, for consideration in the determination of whether to approve the project or a project alternative. CEQA precludes the lead agency from approving a proposed project or a project alternative unless it requires the project proponent to eliminate or substantially lessen all significant effects on the environment where feasible, and determines that any unavoidable remaining significant effects are acceptable due to overriding considerations. (CEQA Guidelines §§ 15090, 15091, 15093, 15126.2, 15126.4 and 15126.6.) Because the project also requires approval from the federal Bureau of Land Management (BLM), it is also subject to environmental review pursuant to the National Environmental Protection Act, which requires the preparation of an environmental impact statement (EIS). Under these circumstances, CEQA encourages the state agency to conduct its environmental review jointly with the federal agency. (CEQA Guidelines § 15222.)

In addition, pursuant to General Order 131-D and Decision (D.) 06-01-042, the Commission will not certify a project unless its design is in compliance with the Commission's policies governing the mitigation of electromagnetic field (EMF) effects using low-cost and no-cost measures.

Accordingly, the scoping memo and ruling determined the following issues to be within the scope of the proceeding:

1. What are the significant environmental impacts of the proposed project?
2. Are there potentially feasible mitigation measures that will eliminate or lessen the significant environmental impacts?
3. As between the proposed project and the project alternatives, which is environmentally superior?
4. Was the environmental impact report (EIR) (in this case, the combined EIR/EIS) completed in compliance with CEQA, did the Commission review and consider the

EIR/EIS prior to approving the project or a project alternative, and does the EIR/EIS reflect the Commission's independent judgment?

5. Are the mitigation measures or project alternatives infeasible?
6. To the extent that the proposed project and/or project alternatives result in significant and unavoidable impacts, are there overriding considerations that nevertheless merit Commission approval of the proposed project or project alternative?
7. 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?

The Commission's Energy Division and the BLM issued the draft EIR/EIS on December 24, 2010, identifying the significant environmental impacts of the proposed project, the potentially feasible mitigation measures and alternatives that would eliminate or lessen the significant environmental impacts, and the environmentally superior project alternative (issues 1 through 3). Evidentiary hearing was held on May 2, 2011. The final EIR/EIS was received into the evidentiary record by Administrative Law Judge (ALJ) ruling on October 31, 2011. SDG&E, Backcountry Against Dumps (BAD) and the San Diego Rural Fire Protection District[2] filed opening briefs on all issues on November 7, 2011, and reply briefs on November 17, 2011. A public participation hearing was conducted on January 24, 2012, in Jacumba, California, after which the record was submitted. Submission was subsequently set aside to

[2] The San Diego Rural Fire Protection District's unopposed September 27, 2011, motion for party status was granted by ALJ ruling dated October 31, 2011.

admit Exhibit 13, containing errata to the final EIR/EIS, and the proceeding was re-submitted as of February 27, 2012.

By ruling dated March 19, 2012, the assigned Commissioner amended the schedule to provide for the issuance of an interim decision resolving issues 1 through 4 (including certification of the EIR/EIS), to be followed at a later date with a decision resolving the remaining issues in the proceeding. By D.12-04-022 issued April 19, 2012, the Commission certified the EIR/EIS as having been completed in compliance with CEQA and affirmed the EIR/EIS as reflecting the Commission's independent judgment.

3. Summary of Environmental Findings in D.12-04-022

3.1. Environmentally Superior Project Alternative

The EIR/EIS, as certified by D.12-04-022, identifies the environmentally superior project alternative, other than the "no project" alternative, as the ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative, Tule Wind Alternative 5 (reduction in turbines) combined with Tule Wind Alternative 2 (underground the 138 kV transmission line from the operations and maintenance and collector substation facilities co-located on Rough Acres Ranch), and the Energy Sierra Juarez (ESJ) Gen-Tie Overhead Alternative Alignment.

The approved ECO Substation Alternative Site would avoid a significant prehistoric archeological site, thus avoiding the significant impacts that the substation site proposed by SDG&E would have on prehistoric archaeological resources. Whereas SDG&E proposed building the entire 138 kV transmission line above ground, the approved ECO Partial Underground 138 kV Transmission Route Alternative would underground two portions of the line for

environmental reasons. One portion of the alternative, in which the line would be rerouted and undergrounded along existing roadways between Mile Point (MP) 0.3 and MP 2.4, was developed as a result of consultation under Section 106 of the Historic Preservation Act to reduce cultural resource impacts. The second portion would underground the line between MP 9 and the rebuilt Boulevard substation, to minimize visual impacts to residents of the community of Boulevard. Undergrounding these two portions of the line also would minimize visual impacts at several scenic vistas. The potential for ignition of wildfires would be reduced and significant impacts on the effectiveness of firefighting would be avoided along the undergrounded portions of the line, compared to above-ground construction.

The EIR/EIS identified mitigation measures that would eliminate or lessen the project's adverse environmental impact; those measures are identified in the Mitigation Monitoring, Compliance and Reporting Plan (MMCRP) attached to this order. The EIR/EIS determines that, notwithstanding these mitigation measures, the environmentally superior project alternative will have the following significant and unmitigable adverse impacts.

3.2. Unmitigable Adverse Impacts

3.2.1. Biological Resources

The ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative would have significant adverse and unmitigable impacts on Quino checkerspot butterfly critical habitat. Quino checkerspot butterfly is a federally endangered species found only in western Riverside Country, southern San Diego County, and northern Baja California, Mexico. The substation would result in the permanent loss of 2.27 acres of U.S. Fish and Wildlife Service critical habitat for this species.

The Tule Wind Alternative 5 combined with Tule Wind Alternative 2 would have adverse and unmitigable impacts to birds, such as golden eagles, due to the risk of mortality from collision with operating wind turbines.

3.2.2. Visual Resources

The ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative would be located in a predominantly undeveloped desert landscape in eastern San Diego County, approximately 0.5 mile to the west of the Jacumba Mountains Wilderness, and approximately 0.7 mile to 1.5 miles south of the Table Mountain Area of Critical Environmental Concern (ACEC) and Anza-Borrego Desert State Park. The substation would be mainly visible by travelers and dispersed residences along Interstate 8 and Old Highway 80, and views would also be possible from the Jacumba Mountains Wilderness, the Table Mountain ACEC and other BLM-administered public lands, and would substantially degrade the area's existing visual character.

The Tule Wind Alternative 5 combined with Tule Wind Alternative 2 would have significant adverse and unmitigable impacts on visual resources. The proposed wind turbines and associated overhead and underground 34.5 kV collector cable systems would be situated in a natural, undeveloped desert landscape of eastern San Diego County in the In-Ko-Pah Mountains near the McCain Valley. The northern extent of the project area would be bordered by high mountainous terrain to the north, northwest, and east including the Sawtooth Mountains Wilderness Area to the north, the Laguna Mountains to the northwest, and Sombrero Peak to the northeast in Anza-Borrego Desert State Park. The wind turbines would be visually dominant

and prominent against the skyline. The Tule Wind 138 kV transmission line would create significant impacts to scenic views where it would cross Interstate 8 and parallel and cross Old Highway 80 into the Boulevard Substation, and would introduce a moderate to strong industrial feature into a landscape characterized by a mixture of natural and rural community elements.

The ESJ Gen-Tie Overhead Alternative Alignment would be situated in a predominantly natural, undisturbed desert landscape in eastern San Diego County immediately south of the proposed ECO Substation. While the 500 kV or 230 kV gen-tie would not be openly visible or cause adverse visual impacts, the ESJ Phase 1 wind turbines to be located in Mexico would create strong, openly visible and sky-lined visual contrasts along the ridgeline and slopes of the Sierra de Juarez Mountains.

3.2.3. Cultural and Paleontological Resources

All components of the environmentally superior alternative would have potential adverse and unmitigable impacts to traditional cultural property (TCP). Although no TCPs have been identified, potential National Registry of Historic Places eligibility of unknown TCPs is assumed. In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible. In this event, the impact on TCPs would be adverse and, while mitigation is provided, the impacts would not be mitigated to a level that is less than significant.

3.2.4. Noise

The ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative and the Tule Wind Alternative 5 combined with Tule Wind Alternative 2 would have adverse and

unmitigable noise impacts that would occur temporarily during construction due to construction-related nighttime noise, helicopters and blasting.

3.2.5. Air Quality

Construction of the ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative will generate emissions of nitrogen oxides (NO_x) and particulate matter less than or equal to 10 microns (PM_{10}) in excess of the significance levels recommended by the San Diego Air Pollution Control District; construction of the Tule Wind Alternative 5 combined with Tule Wind Alternative 2 will generate volatile organic compounds (VOC), NO_x, particulate matter less than or equal to 2.5 microns ($PM_{2.5}$), and PM_{10} emissions in excess of the recommended significance levels; and construction of the ESJ Gen-Tie Overhead Alternative Alignment will generate PM_{10} emissions in excess of the recommended significance levels. Construction of all three projects in combination will generate carbon monoxide (CO) emissions, as well as emissions of NO_x, VOC, PM_{10} and $PM_{2.5}$, in excess of the recommended significance levels.

3.2.6. Fire and Fuels Management

The ECO Substation overhead transmission lines increase the probability of a wildfire and reduce firefighting effectiveness. As part of the plan for mitigating these impacts, SDG&E is required to develop a fire protection plan for the ECO Substation, which will be subject to review and comment by responsible agencies and final approval by the lead agencies (Mitigation Measure FF-4), and to provide funding assistance to the San Diego Rural Fire Protection District (District) (as well as to the San Diego County Fire Authority) to support fire code specialist positions in an amount to be determined by the lead agencies (Mitigation Measure FF-3). Because the fire

protection plan and funding assistance arrangements have yet to be approved by the lead agencies, the EIR/EIS states that the effectiveness of this mitigation in reducing these impacts "is not known and therefore, [the impacts are] considered unavoidable for purposes of the analysis conducted in this EIR/EIS." (Exhibit 11 at D.15-58 and D.15-68.)

4. Feasibility of Environmentally Superior Alternative

The feasibility of the environmentally superior alternative depends upon the BLM's grant of a right of way for constructing and operating the facilities on public lands. In the event that the BLM grants a right of way for something other than the environmentally superior alternative, or other permitting agencies permit other components, such components of the environmentally superior alternative will be legally infeasible.

No party asserted that the environmentally superior alternative is infeasible for legal, social, technological, or other considerations. (CEQA Guidelines § 15091(a)(3).) However, we acknowledge the many public comments objecting to the environmentally superior alternative on the basis that undergrounding of a portion of the 138 kV transmission line is costly and therefore unreasonable. Specifically, at the public participation hearing conducted on January 24, 2012, in Jacumba, California, three speakers opposed undergrounding portions of the project on the basis that the cost of undergrounding is significant. In addition, outside of the public participation hearing, 16 people e-mailed public comments to the ALJ, and one person left a voice message, expressing their opposition to undergrounding for reasons of its high cost.

The incremental cost of mitigation is not in and of itself sufficient basis to reject the environmentally superior alternative as infeasible. In *Maintain Our*

Desert Environment v. Town of Apple Valley (2004) 124 Cal.App.4th 430, the court explained, "Economic unfeasibility is not measured by increased cost or lost profit, but upon whether the effect of the proposed mitigation is such that the project is rendered impractical …. But, if the project can be economically successful with mitigation, then CEQA requires that mitigation, regardless of the proponent's financial status." (*Id.* at 448-449.) There is no evidence that the ECO Partial Underground 138 kV Transmission Route Alternative Substation Project cannot be successfully accomplished as a result of the greater costs associated with undergrounding the transmission line, or that the cost of undergrounding will result in unreasonable rates.

The environmentally superior ECO Substation component is feasible.

5. Overriding Considerations

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

The ECO Substation project will enable the Tule Wind Project and other wind projects to interconnect to the California Independent System Operator (CAISO)-controlled transmission grid, aiding in progress towards federal and state greenhouse gas reduction and renewable electricity goals, including the requirements set forth in the California Renewables Portfolio Standard Program,[3]

[3] The California Renewables Portfolio Standard Program was established by Senate Bill (SB) 1078 (Stats. 2002, Ch. 516, Sec. 3, codified as Pub. Util. Code §§ 399.1 *et seq.*, effective January 1, 2003). The Renewables Portfolio Standards Program or related elements have been amended several times, including by SB 107 (Stats. 2006, Ch. 464), AB 1969 (Stats. 2006, Ch. 731), SB 1036 (Stats. 2007, Ch. 685), SB 380 (Stats. 2008, Ch. 544), SB 32 (Stats. 2009, Ch. 328), SB 695 (Stats. 2009, Ch. 337), and SB 2 (2011-12 First Extraordinary Session, Stats. 2011, Ch. 1).

Assembly Bill (AB) 32 (Stats.2006, Ch. 488) (California Global Warming Solutions Act of 2006), the Governor's Executive Order S-14-08 to increase the state's Renewable Energy Standard to 33% renewable energy by 2020, and Title XVII, Section 1705, of the Energy Policy Act of 2005 (authorizing a new program for rapid deployment of, among other things, renewable energy projects).

In addition, the ECO Substation project will improve the reliability of electric service to SDG&E's customers in the local communities of Bankhead Springs, Boulevard, Jacumba, Manzanita, and the Campo, La Posta, and Manzanita Indian Reservations. These communities have experienced five to 30 outages per year in the past ten years with the longest outage being three hours and 50 minutes. (Exhibit 2 at 6.) The ECO Substation project would improve reliability by upgrading existing infrastructure and providing a second source for the southeastern 69 kV transmission system. (*Id.* at 6 and 7.)

SDG&E touts the project's creation of hundreds of green jobs and injection of approximately $36 million into the local economy as an additional benefit that supports a finding of overriding consideration. The Commission's responsibility is to ensure safe and reliable utility service at just and reasonable rates. While the ECO Substation project may provide these benefits, it is not evident that we have the authority to approve it, notwithstanding its significant and unavoidable environmental impacts, on the basis of its jobs creation and economic stimulus.

We find that the ECO Substation Project's contribution to California's progress toward federal and state greenhouse gas reduction and renewable electricity goals, and the increased reliability of electric service to the local communities, are overriding considerations that support our approval of the ECO Substation project, configured as the ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative,

despite its significant and unavoidable impacts on biological resources, visual resources, cultural resources, noise, air quality, and fire and fuels management.

5.1. San Diego Rural Fire Protection District

The District argues that the record does not support a finding of considerations that override the project's significant and unavoidable impacts because, when implemented, Mitigation Measures FF-3 and FF-4 may lessen the fire and fuels management impacts to less than significant. We disagree. As discussed previously, the EIR/EIS appropriately determines that, notwithstanding Mitigation Measures FF-3 and FF-4, there may be unavoidable fire and fuels management impacts. Accordingly, it is appropriate for the Commission to consider those potential impacts in weighing whether to approve the project.

5.2. Public Comment

We acknowledge the many public comments addressing the merits of the project. Specifically, at the public participation hearing conducted on January 24, 2012, in Jacumba, California, seventeen people spoke, and one person submitted a written statement, in opposition to the project, while 16 people spoke, and one person submitted a written statement, in support of the project. Most of the speakers opposing the project raised objections on the basis of the project's environmental impacts on recreation (camping, hiking, and off-road vehicle), scenic vistas, biological resources (in particular, golden eagles), fire safety (prevention and fire-fighting), noise and vibration (construction and operational), public health and safety (EMF effects, shadow flicker and light) and well water. Ten of the speakers opposing the project raised objections that the project benefits urban and corporate interests at the expense of local property values and quality of life. Six of the speakers opposing the project challenged the

need for the project on the basis of electrical demand, the availability of distributed generation as an alternative to the project, and/or the inefficiency of wind power due to the requirement for back-up power. Sixteen people spoke, and one person submitted a written statement, in support of the project, commenting on the role of the project in enabling the deployment of wind and solar energy resources; three speakers commented on the need to reduce global warming; and five speakers commented on job creation attributable to the project.

We are mindful of the environmental cost of this project. Nevertheless, on balance, and for all the reasons discussed above, we find that there are overriding considerations that merit project approval despite its environmental impacts.

6. EMF

The Commission has examined EMF impacts in several previous proceedings.[4] We found the scientific evidence presented in those proceedings was uncertain as to the possible health effects of EMFs and we did not find 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 determination of environmental impacts.

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

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% of the total budgeted project cost that results in an EMF reduction of at least 15% (as measured at the edge of the utility right-of-way).

SDG&E filed a Magnetic Field Management Plan (MFMP) as an attachment to its August 10, 2009, application, based on its preferred project alternative and, pursuant to order of the administrative law judge, supplemented the MFMP to address the environmentally superior alternative identified in the draft EIR/EIS and impacts on 25 identified residences within 1,000 feet of the project route. The MFMP provides that the project will use phasing to reduce magnetic field levels. Undergrounding of portions of the 138 kV transmission line under the environmentally superior alternative would further reduce magnetic fields in the vicinity of 19 of the 25 residences identified in the draft EIR/EIS by reducing conductor spacing and arranging the underground conductors to use cancellation as an additional reduction measure. While also a low-cost measure, raising structures' heights in the vicinity of the remaining six residences along the entire project length (e.g., at the Southwest Powerlink crossing and at the east end of a private air strip) does not appear to be feasible and could potentially necessitate the installation of marker balls and lights, which might create additional environmental impacts. There are no further

feasible low-cost field reduction measures that can be implemented on this project. This design complies with the Commission's EMF decisions.

No party challenged SDG&E's supplemental MFMP on compliance with the Commission's EMF decisions. Although BAD presented evidence challenging the sufficiency of the original August 10, 2009, MFMP (Ex. 3), it did not submit testimony in response to SDG&E's supplemental MFMP as permitted by the administrative law judge's ruling at the May 2, 2011, evidentiary hearing (Tr. 105) or raise the issue in closing briefs.

7. Comments on Proposed Decision

The proposed final decision of ALJ Hallie Yacknin in this matter was mailed to the parties in accordance with Pub. Util. Code § 311 and comments were allowed pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure. SDG&E and BAD filed opening comments on June 6, 2012, and reply comments on June 11, 2012.

SDG&E recommends that the proposed decision's discussion of feasibility of the partial undergrounding of the 138 kV transmission line be revised to find feasibility on the basis of the weighing of the environmental benefits of the mitigation measure against its economic cost pursuant to Pub. Res. Code § 21081(a)(3). To the contrary, while environmental factors are relevant for the purpose of identifying potentially feasible mitigation measures and project alternatives in the EIR pursuant to CEQA Guideline § 15126.6(a), they do not support an agency's finding that an identified potentially feasible mitigation measure or alternative is ultimately infeasible (or feasible) pursuant to Pub. Res. Code § 21081(a)(3) and CEQA Guideline § 15091(a)(3). An agency may find an identified mitigation measure or alternative to be infeasible for "[s]pecific economic, legal, social, technological, or other considerations." (*Id.*) It may not

reject a mitigation measure as infeasible on the basis of the relative weight that it gives to the significant environmental impact that the mitigation measure would mitigate or eliminate. Indeed, it would undercut the very premise of CEQA were agencies at liberty to do so.[5]

SDG&E asserts that, in citing to *Maintain Our Desert Environment* for the proposition that a mitigation measure is not economically infeasible if the project can be successfully accomplished notwithstanding the greater costs of the mitigation measure, the proposed decision errs in "applying a judicial test for private projects to public utility projects." (SDG&E comments at 5.) SDG&E cites to D.09-07-024 for the proposition that, in the context of a public utility project, the impact on rates is a relevant consideration for judging the feasibility of alternatives and asserts that, in so holding, D.09-07-024 rejected the economic feasibility test. To the contrary, D.09-07-024 did not reject any "judicial test for private projects" or adopt a different economic test for public utility projects. Rather, D.09-07-024 affirmed that the impact on rates is an additional, relevant consideration in the determination of the infeasibility of a mitigation measure or alternative. While we do not reject the economic feasibility test of *Maintain our Desert Environment* as SDG&E advocates, we revise the proposed decision to acknowledge that, although there is no evidence here that the rate impact

[5] SDG&E cites to *City of Del Mar v. City of San Diego* (1982) 133 Cal. App. 3d 401 at 417, and to later authority that favorably cites to that decision, for the proposition that environmental factors may also be weighed in determining whether a mitigation measure or project alternative is infeasible. However, to the extent that this proposition can be found in those cases, it is dicta because *Del Mar* and the other cited authority rely on economic, social, and/or policy considerations, not environmental factors, as the basis for finding a mitigation measure or alternative to be infeasible.

renders the undergrounding measure infeasible, it is an additional, relevant consideration.

SDG&E recommends that the proposed decision be modified to delete the suggestion that the Commission might not have the authority to approve a project, notwithstanding its significant and unavoidable environmental impacts, on the basis of the value of matters outside of the Commission's regulatory jurisdiction. SDG&E does not identify legal error, and we see no need to adopt its recommendation.

SDG&E recommends that the proposed decision be modified to give Energy Division broader authority to approve changes to the approved project during construction. SDG&E does not identify legal error, and we see no need to adopt its recommendation.

SDG&E identifies several typographical errors, which we correct.

BAD identifies an error in the proposed decision's characterization of the final EIR/EIS, as opposed to the draft EIR/EIS, as identifying the number of residences within 1,000 feet of the 138 kV transmission line right of way route as 25, which we correct.

BAD asserts that the proposed decision errs in finding that SDG&E's MFMP is consistent with the Commission's EMF policies because the MFMP was prepared in advance of the final EIR/EIS, which amended the draft EIR/EIR to re-route a portion of the 138 kV transmission line in the environmentally superior alternative. To the contrary, the fact that the final EIR/EIS identifies (and this decision approves) a slightly different route does not render the MFMP inconsistent with the Commission's EMF policies. In addition, GO 131-D imposes an ongoing obligation on SDG&E to revise the MFMP as necessary to

ensure that the final plan remains consistent with the Commission's EMF policies.

8. Assignment of Proceeding

Mark J. Ferron is the assigned Commissioner and Hallie Yacknin is the assigned ALJ in this proceeding.

Findings of Fact

1. The EIR/EIS, which was certified by the Commission in D.12-04-022, identifies the environmentally superior project alternative, other than the "no project" alternative, as the ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative, Tule Wind Alternative 5 (reduction in turbines) combined with Tule Wind Alternative 2 (underground the 138 kV transmission line from the operations and maintenance and collector substation facilities co-located on Rough Acres Ranch), and the ESJ Gen-Tie Overhead Alternative Alignment. The EIR/EIS identified mitigation measures that would eliminate or lessen the project's adverse environmental impact; those measures are identified in the MMCRP attached to this order. The EIR/EIS determines that, notwithstanding these mitigation measures, the environmentally superior project alternative will have significant and unmitigable adverse impacts on biological resources, air resources, cultural resources, noise and visual resources.

2. The Commission has reviewed and considered the information contained in the EIR/EIS.

3. The EIR/EIS reflects the Commission's independent judgment and analysis.

4. The ECO Substation project will enable the Tule Wind Project to interconnect to the CAISO-controlled transmission grid, aiding in progress

towards federal and state greenhouse gas reduction and renewable electricity goals, including the requirements set forth in SB 1078 (California Renewable Portfolio Standard Program), AB 32 (California Global Warming Solutions Act of 2006), the Governor's Executive Order S-14-08 to increase the state's Renewable Energy Standard to 33% renewable energy by 2020, and Title XVII, Section 1705, of the Energy Policy Act of 2005 (authorizing a new program for rapid deployment of, among other things, renewable energy projects).

5. The ECO Substation project will improve the reliability of electric service to the local communities.

6. SDG&E's MFMP incorporates all feasible no-cost and low-cost measures to reduce potential EMF impacts by placing major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines, and arranging the conductors of the proposed transmission line segments for magnetic field reduction along adjacent transmission corridors.

Conclusions of Law

1. In the event that the BLM and/or other permitting authorities approve Tule Wind Project and/or ESJ Gen-Tie Project components other than Tule Wind Alternative 5 (reduction in turbines) combined with Tule Wind Alternative 2 (underground the 138 kV transmission line from the operations and maintenance and collector substation facilities co-located on Rough Acres Ranch), and the ESJ Gen-Tie Overhead Alternative Alignment, the environmentally superior alternative for these components will be legally infeasible.

2. The contribution of the ECO Substation Project to California's progress towards federal and state greenhouse gas reduction and renewable electricity

goals, and the increased reliability of electric service to the local communities, are overriding considerations that support our approval of it, despite its significant unavoidable impacts on biological resources, air resources, cultural resources, noise, visual resources, and fire and fuels management.

3. 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.

4. SDG&E should be granted a permit to construct the ECO Substation Project, configured as the ECO Substation Alternative combined with the ECO Partial Underground 138 kV Transmission Route Alternative, in compliance with the MMCRP attached to this order.

5. Application 09-08-003 should be closed.

O R D E R

IT IS ORDERED that:

1. San Diego Gas & Electric Company is granted a permit to construct the East County Substation Project, configured to include the East County (ECO) Substation Alternative Site combined with the ECO Partial Underground 138 kilovolt Transmission Route Alternative, in compliance with the Mitigation Monitoring, Compliance, and Reporting Plan included as part of the final Environmental Impact Report/Environmental Impact Statement and attached to this order.

2. The Mitigation Monitoring, Compliance, and Reporting Plan, included as part of the final Environmental Impact Report/Environmental Impact Statement and attached to this order as an attachment, is adopted.

3. 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 East County Substation Project so long as such minor project refinements are located within the geographic boundary of the study area of the Environmental Impact Report/Environmental Impact Statement 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 environmental document; 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 this decision.

4. Application 09-08-003 is closed.

This order is effective today.

Dated June 21, 2012, at San Francisco, California.

MICHAEL R. PEEVEY
President
TIMOTHY ALAN SIMON
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
MARK J. FERRON
Commissioners

ATTACHMENT

East County Substation Project

MITIGATION MONITORING, COMPLIANCE AND REPORTING PLAN

Table D.2-12
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Biological Resources

Mitigation Measure	BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. An environmental monitor shall complete regular observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these construction access roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates. In addition, to control unauthorized use of project access roads by off-road vehicle enthusiasts, the applicants shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC/ BLM to review final engineering plans and verify in the field that approved work limits are clearly delineated on the final engineering plans. An environmental monitor to ensure proper installation and maintenance of construction fencing and signage during construction. Environmental monitor to report to CPUC whether any work occurred outside of the approved work limits.
Effectiveness Criteria	Field verification that delineated construction areas correspond with final plans.
Responsible Agency	BLM and CPUC
Timing	Confirm implementation prior to any vegetation clearing or ground disturbance activities and throughout the construction period.
Mitigation Measure	BIO-1b. Conduct contractor training for all construction staff. Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hard hat decals shall be provided that document contractor training has been completed for construction personnel.
Location	All areas disturbed by construction activities
Monitoring/Reporting Action	CPUC environmental monitor shall oversee construction monitoring to ensure biological impacts are avoided or minimized, and ensure that appropriate work practices necessary to implement the mitigation measures are implemented.
Effectiveness Criteria	Successful avoidance of unforeseen impacts and compliance with APMs and mitigation measures.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Mitigation Measure	BIO-1c. Conduct biological construction monitoring. An authorized biological monitor must be present at the construction sites during all ground disturbing and vegetation removal activities. The monitor shall survey the construction sites and surrounding areas for compliance with all environmental specifications. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies through the duration of the ground disturbing and vegetation removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted through the duration of project construction to document compliance with environmental requirements.
Location	All areas disturbed by construction activities.

Monitoring/Reporting Action	Weekly/Monthly biological construction monitoring reports submitted to BLM and CPUC.
Effectiveness Criteria	Identification of issues and solutions through regular monitoring and reporting. The qualifications of the qualified biologist shall be approved by BLM and CPUC.
Responsible Agency	BLM and CPUC
Timing	Weekly biological monitoring during ground disturbance and vegetation removal activities; Monthly biological monitoring for the remaining duration of construction.
Mitigation Measure	BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan. All temporary work areas not subject to long-term use or ongoing vegetation maintenance shall be revegetated with native species characteristic of the adjacent native vegetation communities in accordance with a Habitat Restoration Plan. A habitat restoration specialist will be designated and approved by the California Public Utilities Commission and Bureau of Land Management and will determine the most appropriate method of restoration. Restoration techniques may include: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The Habitat Restoration Plan shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. At the completion of project construction, all construction materials shall be completely removed from the site. All temporary construction access roads shall be permanently closed and restored. Topsoil located in areas to be restoration would be conserved and stockpiled during the excavation process for use in the restoration. Wherever possible, vegetation would be left in place to avoid excessive root damage to allow for natural recruitment following construction. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly (see MM BIO-1e).
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM and CPUC shall review habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. BLM/CPUC biological monitor shall confirm that proposed habitat restoration mitigation plans are implemented.
Effectiveness Criteria	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Responsible Agency	BLM and CPUC
Timing	Plan submitted to CPUC /BLM for review 90 days prior to ground disturbance activities. Restoration will be initiated at earliest opportunity upon completion of soil-disturbing activities.
Mitigation Measure	BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities. Permanent impact to all native vegetation communities shall be compensated through a combination habitat compensation and habitat restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Habitat compensation shall be accomplished through agency-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting comparable habitats to those lands impacted by the ECO Substation Project. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as compensation for permanent impacts provided that restoration is demonstrated to be feasible and the restoration effort is implemented pursuant to a Habitat Restoration Plan, which includes success criteria and monitoring specifications as described above for Mitigation Measure BIO-1d. The Habitat Restoration Plan shall be approved by the permitting agencies prior to construction of the project. All habitat compensation and restoration used as mitigation for the ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the ECO Substation Project on private lands shall include long-term management and legal protection assurances.

Location	On the ECO Substation Project site or on to-be-identified mitigation parcels.
Monitoring/Reporting Action	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre, in-kind basis or as otherwise required by the agencies. For habitat restoration, the habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s), if applicable, shall be submitted to CPUC/ BLM for review within 1 year of the initiation of project construction. Restoration, if applicable, shall be initiated no later than 18 months after the initiation of project construction.
Mitigation Measure	BIO-1f. Implement fire prevention best management practices during construction and operation activities. Fire prevention best management practices shall be implemented during construction and operation of the project as specified by the Construction Fire Prevention/Protection Plan (to be developed as required under Mitigation Measure FF-1) and Wildland Fire Prevention and Fire Safety Electric Standard Practice Operation and Maintenance Plan (to be revised as required under Mitigation Measure FF-2).
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's Construction Fire Prevention/Protection Plan and ensure its implementation.
Effectiveness Criteria	Implementation of the plan. Limit work during Red Flag Warnings and Very High PAL. Provide evidence of coordination with applicable fire authorities.
Responsible Agency	BLM and CPUC
Timing	Plan effective throughout construction.
Mitigation Measure	BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan. Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in Mitigation Measure HYD-1.
Location	All areas disturbed by construction activities
Monitoring/Reporting Action	BLM and CPUC will review SDG&E's SWPPP and ensure its implementation.
Effectiveness Criteria	Construction and BMPs in place during construction, and kept operating as long as needed. Mitigation measure is effective if water quality near the project is maintained.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Mitigation Measure	BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans. Obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit, a Clean Water Act Section 401 water quality certification, and a Section 1602 streambed alteration agreement with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Game for impacts to jurisdictional features prior to project construction. The terms and conditions of these authorizations shall be implemented.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM/CPUC to review final engineering plans. Third party monitors to verify proper installation of construction fencing and signage. SDG&E provide evidence that applicable

	permits have been obtained. CPUC/ BLM to document compliance two weeks prior to ground disturbance activities.
Effectiveness Criteria	Field verification that delineated construction areas correspond with final plans. Documentation of permit compliance to be provided to CPUC and BLM.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities.
Mitigation Measure	BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands. Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the Proposed ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the project on private lands shall include long-term management and legal protection assurances.
Location	Identified habitat creation and/or restoration areas on the ECO Substation Project site or at off-site mitigation parcel(s)
Monitoring/Reporting Action	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Effectiveness Criteria	The habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	If off-site mitigation lands are utilized, they shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s) shall be submitted to CPUC/ BLM for review within 1 year of the initiation of project construction. Restoration shall be initiated no later than 18 months after the initiation of project construction.
Mitigation Measure	BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages. Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.
Location	All drainage crossing in the ECO Substation Project area.
Monitoring/Reporting Action	CPUC/BLM to review final engineering plans to ensure measure is implemented to the extent feasible.
Effectiveness Criteria	Ensure access roads are built perpendicular to drainages to the extent feasible.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Mitigation Measure	BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan. A Noxious Weeds and Invasive Species Control Plan shall be prepared and reviewed by the California Public Utilities Commission/Bureau of Land Management and applicable permitting agencies. On BLM lands, the plan shall be consistent with an Integrated Pest

	Management approach per the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (2007). The plan shall be implemented during all phases of project construction and operation. The plan shall include best management practices to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction. Implementation of specific protective measures shall be required during construction, such as cleaning vehicles prior to off-road use, using weed-free imported soil/material, restricted vegetation removal and requiring topsoil storage. Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations along the construction access and transmission line right-of-ways. Vehicles used in transmission line construction shall be cleaned prior to operation off of maintained roads. Existing vegetation shall be cleared only from areas scheduled for immediate construction work and only for the width needed for active construction activities. Noxious weed management shall be conducted annually to prevent the establishment and spread of invasive plant species. This shall include weed abatement efforts, targeted at plants listed as invasive exotics by the California Exotic Plant Pest Council in their most recent "A" or "Red Alert" list. Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP). Pesticide use should be limited to non-persistent pesticides and should only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications.
Location	Entire project area.
Monitoring/Reporting Action	BLM and CPUC to verify that plan has been submitted and is implemented. Evidence provided to BLM/CPUC that the plan has been reviewed by applicable permitting agencies.
Effectiveness Criteria	Noxious Weeds and Invasive Species Control Plan prepared and successfully implemented.
Responsible Agency	BLM/CPUC
Timing	Plan submitted to BLM, CPUC and applicable permitting agencies for review 90 days prior to initiation of project construction. Plan shall be implemented throughout construction and throughout operations.
Mitigation Measure	BIO-4a. Prepare and implement a Dust Control Plan. The project proponent shall (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites up to 48 hours in advance of clearing to control fugitive dust; (c) reduce the amount of disturbed area where feasible; (d) spray all dirt stock-pile areas daily as needed; (e) cover loads in haul trucks or maintain at least 6 inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas to meet the criteria of the revegetation plan; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for 14 consecutive days); and (j) prepare and file with the San Diego Air Pollution Control District, Bureau of Land Management and California Public Utilities Commission a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. This plan shall be developed consistent with the requirements of Mitigation Measure AQ-1.
Location	All construction areas including staging areas.
Monitoring/Reporting Action	Review Dust Control Plan. Verify local air district concurrence with the Plan. Inspect activities for dust control.
Effectiveness Criteria	Dust emissions are reduced. Effectiveness can be monitored by monitoring implementation of the control measures.
Responsible Agency	BLM and CPUC
Timing	Plan submitted to BLM and CPUC for review 90 days prior to initiation of project construction. Evidence shall also be provided that SDG&E has submitted the plan for review

	to SDPACD. Plan shall be implemented throughout construction.
Mitigation Measure	BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas. Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging. Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM/CPUC monitor to ensure construction fencing has been installed at necessary locations based on the results of the focused surveys for special-status plant species. The results of the focused surveys for special-status plan species are to be provided to CPUC/BLM by a qualified biologist within 48 hours of completing the survey.
Effectiveness Criteria	Field verification that delineated plant populations are consistent with baseline data and focused surveys. The qualifications of the qualified biologist shall be approved by the CPUC.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities.
Mitigation Measure	BIO-5b. Implement special-status plant species compensation. Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC or BLM. Land preservation must be completed within 18 months of permit issuance. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the CPUC or BLM, off-site land preservation shall be required.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM and CPUC shall review habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. CPUC/BLM biological monitor shall confirm that proposed habitat restoration mitigation plans are implemented.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre or population basis or as otherwise required by the agencies. For salvage and relocation, the agency approved plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Salvage and relocation plan(s), if applicable, shall be submitted to CPUC/ BLM for review 90 days prior to the initiation of project construction. Salvage and relocation, if applicable, shall be initiated during project construction.
Mitigation Measure	BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily. All steep trenches and excavations during construction shall be inspected twice daily (i.e., morning and evening) by a qualified biologist to monitor for wildlife

	entrapment. Large/steep excavations shall be covered and/or fenced nightly to prevent wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.
Location	All construction excavations and trenches
Monitoring/Reporting Action	Verification of measure implementation shall be provided to CPUC/ BLM by biological construction monitor. CPUC/BLM monitor to verify measure is being implemented during construction.
Effectiveness Criteria	Biological construction monitoring observations, reporting, and coordination/communication with construction personnel.
Responsible Agency	BLM and CPUC
Timing	During all subsurface construction activities.
Mitigation Measure	BIO-7b. Enforce speed limits in and around all construction areas. Vehicles shall not exceed 15 miles per hour on unpaved roads and the right-of-way accessing the construction site or 10 miles per hour during the night.
Location	All construction areas and access ways of the ECO Substation Project area.
Monitoring/Reporting Action	Verification of establishment and enforcement mechanisms shall be provided to BLM/CPUC. BLM/CPUC to ensure speed limits are reduced to within permitted limits during construction.
Effectiveness Criteria	Contractor training and biological construction monitoring oversight and field observations.
Responsible Agency	BLM and CPUC
Timing	During all construction activities.
Mitigation Measure	BIO-7c. Minimize night construction lighting adjacent to native habitats. Lighting of construction areas at night shall be the minimum necessary for personnel safety and shall be low illumination, selectively placed, and directed/shielded appropriately to minimize lighting in adjacent native habitats.
Location	All construction areas adjacent to native vegetation
Monitoring/Reporting Action	Verification of night lighting specifications to be provided to BLM/CPUC. The specifications shall include light placement, illumination, and direction light will be oriented. BLM/CPUC environmental monitors to verify that night lighting adjacent to native habitats is minimized.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. An environmental monitor to inspect periodically to ensure correct placement of lighting to prevent night lighting impacts to sensitive habitats.
Responsible Agency	BLM and CPUC
Timing	During construction.
Mitigation Measure	BIO-7d. Prohibit littering and remove trash from construction areas daily. Littering shall not be allowed by the project personnel. All food-related trash and garbage shall be removed from the construction sites on a daily basis.
Location	All construction areas
Monitoring/Reporting Action	Verification littering and trash control measures have been included in the project contractor specifications and is presented as part of the environmental awareness training. Documentation of compliance with this measure shall be provided to BLM/CPUC throughout construction.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. An environmental monitor to inspect periodically to ensure measures are being implemented to remove litter and trash from the construction area on a daily basis
Responsible Agency	BLM and CPUC
Timing	During construction.
Mitigation Measure	BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife. Project personnel shall not harm, harass, collect, or feed wildlife. No pets shall be allowed in the construction areas.
Location	All construction areas
Monitoring/Reporting Action	Verification that appropriate measures have been included in the project contractor specifications and are presented as part of the environmental awareness training. Documentation of compliance with this measure shall be provided to BLM/CPUC throughout

	construction.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. BLM/CPUC to inspect periodically to ensure measures are being implemented.
Responsible Agency	BLM and CPUC
Timing	During construction.
Mitigation Measure	BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species. If determined necessary, the applicant shall obtain a biological opinion through Section 7 consultation between the Bureau of Land Management and U.S. Fish and Wildlife Service for impacts to federally listed wildlife species and a Section 2081 permit (or consistency determination) from the California Department of Fish and Game for impacts to state listed wildlife species resulting from this project, if applicable. The terms and conditions included in these authorizations shall be implemented, which may include seasonal restrictions, relocation, monitoring/reporting specifications, and/or habitat compensation through restoration or acquisition of suitable habitat.
Location	Terms and conditions of permits may apply anywhere within the ECO Substation Project site or on off-site mitigation parcels, but would mostly relate to the occupied Quino checkerspot butterfly habitat areas and the designated critical habitat for Quino checkerspot butterfly.
Monitoring/Reporting Action	Issued Section 7 biological opinion to be provided to CPUC/ BLM to document compliance.
Effectiveness Criteria	Biological construction monitoring and reporting to provide documentation of permit compliance. Criteria for effectiveness to be identified in permit.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities in or around suitable Quino checkerspot butterfly habitat or designated Quino checkerspot butterfly critical habitat.
Mitigation Measure	BIO-7g. Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat. SDG&E shall conduct pre-construction protocol surveys for Quino checkerspot butterfly within 1 year prior to construction activities, or as required by U.S. Fish and Wildlife Service, in any area known to support the species. Surveys shall be conducted by a qualified, permitted biologist in accordance with the most currently accepted protocol survey method. Results shall be reported to the U.S. Fish and Wildlife Service within 45 days of the completion of the survey. The surveys that were conducted in the spring of 2010 will be valid for construction in 2012 so long as construction commences before May 2012. If construction is not scheduled to commence before May 2012, SDG&E will contact the U.S. Fish and Wildlife Service to discuss whether an additional survey is warranted.
Location	Occupied Quino checkerspot butterfly habitat along the 138 kV transmission line project component of the ECO Substation Project area.
Monitoring/Reporting Action	Submittal of 45-day report to USFWS, CPUC, and BLM.
Effectiveness Criteria	Surveys to be conducted pursuant to accepted protocol survey method by qualified, permitted biologist.
Responsible Agency	BLM and CPUC
Timing	Within 1 year of the initiation of project construction in occupied habitat.
Mitigation Measure	BIO-7h. Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration. Temporary and permanent impact to Quino checkerspot butterfly shall be compensated through a combination of habitat compensation and habitat restoration at a minimum of a 2:1 mitigation ratio for non-critical habitat and a minimum of a 3:1 mitigation ratio for critical habitat, or as required by the permitting agencies. Habitat compensation shall be accomplished through U.S. Fish and Wildlife Service-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting Quino checkerspot butterfly. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and

	implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the Proposed PROJECT on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the Proposed PROJECT on private lands shall include long-term management and legal protection assurances.
Location	On the ECO Substation Project site or on to-be-identified mitigation parcels.
Monitoring/Reporting Action	CPUC/ BLM/USFWS to verify that habitat preservation and/or habitat restoration has been identified and implemented.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre basis or as otherwise required by the agencies. For habitat restoration, the habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s), if applicable, shall be submitted to CPUC/BLM for review within 1 year of the initiation of project construction. Restoration, if applicable, shall be initiated no later than 18 months after the initiation of project construction.
Mitigation Measure	BIO-7i. Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly. The final design of the ECO Project through Quino checkerspot butterfly habitat shall maximally avoid and minimize habitat resources used by the species. SDG&E shall explore alternate tower locations, reduced road widths, reduced vegetation maintenance, and other design modifications and obtain agency approval of the final design through this area.
Location	Occupied Quino checkerspot butterfly habitat along the 138 kV transmission line project component of the ECO Substation Project area.
Monitoring/Reporting Action	BLM/CPUC to approve final engineering plans to ensure impacts to critical habitat areas were avoided to the maximum extent feasible.
Effectiveness Criteria	Ensure final design maximizes avoidance of critical habitat to the extent feasible.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities.
Mitigation Measure	BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds. If the project must occur during the avian breeding season (February 1st to August 31st, and as early as January 1 for some raptors), SDG&E should work with the California Department of Fish and Game (CDFG), Bureau of Land Management, and the U.S. Fish and Wildlife Service (USFWS) to prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds. SDG&E will submit to the agencies the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following: 1. Nest Survey Protocols describing the nest survey methodologies 2. A Management Plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks 3. A Monitoring and Reporting Plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFG to monitor SDG&E's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 4. A schedule for the submittal (usually weekly) of the NML 5. Standard buffer widths deemed adequate to avoid or minimize significant project-

	related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks 6. A detailed explanation of how the buffer widths were determined 7. All measures SDG&E will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting. To determine presence of nesting birds that the project activities may affect, surveys should be conducted beyond the project area—300 feet for passerine birds and 500 feet for raptors. The survey protocols should include a detailed description of methodologies utilized by CDFG-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols should include but are not limited to the size of project corridor being surveyed, method of search, and behavior that indicates active nests. Each nest identified in the project area should be included in the NML. The NMLs should be updated daily and submitted to the CDFG weekly. Since the purpose of the NMLs is to allow the CDFG to track compliance, the NMLs should include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs should provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species. SDG&E will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths should be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths should consider the following factors: a. Nesting chronologies b. Geographic location c. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise) d. Type and extent of disturbance (e.g., noise levels and quality— punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the birds flush the nests) e. Visibility of disturbance f. Duration and timing of disturbance g. Influence of other environmental factors h. Species' site-specific level of habituation to the disturbance. Application of the standard buffer widths should avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.
Location	In and around any construction activity in the project area (300 feet for passerine birds and 500 feet for raptors).
Monitoring/Reporting Action	Pre-construction nesting bird survey reports to be provided to CPUC/BLM 72 hours prior to construction. NBMMRP shall be prepared if the project must occur during the avian breeding season. Any nests identified shall be included in the NML, which will be updated daily and submitted to CDFG weekly.
Effectiveness Criteria	Site-specific avoidance measures, as necessary, to be identified in the survey report. In the event federal- or state-listed nesting birds are identified, SDG&E shall provide documentation of the recommendations that were provided by the USFWS and/or CDFG. If nests are identified, SDG&E avian biologists will determine appropriate buffer widths that are site- and species-/guild-specific and data-driven.
Responsible Agency	BLM and CPUC
Timing	Prior to construction during the nesting season.
Mitigation Measure	BIO-10a. Design all transmission towers and lines to conform with Avian Power Line

	Interaction Committee standards. The Proposed Project shall implement recommendations by the Avian Power Line Interaction Committee (2006), which will protect raptors and other birds from electrocution. These measures are sufficient to protect even the largest birds that may perch or roost on transmission lines or towers from electrocution.
Location	All areas of the ECO Substation Project site containing transmission towers and lines.
Monitoring/Reporting Action	BLM/CPUC to review final engineering plans.
Effectiveness Criteria	Ensure the final engineering design meets the effectiveness criteria documented by APLIC (2006)
Responsible Agency	BLM and CPUC
Timing	Prior to construction.
Mitigation Measure	BIO-10b. Develop and implement project-specific Avian Protection Plans. Develop and implement an Avian Protection Plan related to wire, transmission tower, and facilities impacts from electrocution and collision of bird species. An Avian Protection Plan shall be developed jointly with the U.S. Fish and Wildlife Service and California Department of Fish and Game and shall provide the framework necessary for implementing a program to reduce bird mortalities and document actions. The Avian Protection Plan shall include the following: corporate policy, training, permit compliance, construction design standards, nest management, avian reporting system, risk assessment methodology, mortality reduction measures, avian enhancement options, quality control, public awareness, and key resources.
Location	All ECO Substation Project areas.
Monitoring/Reporting Action	BLM/CPUC to verify that plan has been submitted and is being implemented.
Effectiveness Criteria	Plan shall identify criteria to determine effectiveness.
Responsible Agency	BLM and CPUC
Timing	Plan that has been prepared jointly with USFWS shall be submitted to BLM/CPUC for review 90 days prior to initiation of project construction. Plan shall be implemented throughout project construction and operation.
Mitigation Measure	BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys. Maintenance activities with the potential to result in direct or indirect habitat disturbance, most notably vegetation management, shall be conducted outside of the bird nesting season to the maximum extent practicable. Where avoidance is not possible, the project proponent shall conduct pre-construction nesting bird surveys consistent with the requirements of the NCCP to determine the presence/absence of active nests in or adjacent to construction areas. If active nests are identified, appropriate avoidance measures would be identified and implemented to prevent disturbance to the nesting bird(s). If federal or state listed nesting birds are identified, the project proponent shall contact the U.S. Fish and Wildlife Service and/or California Department of Fish and Game to determine the appropriate course of action.
Location	All operations and maintenance areas associated with the substation site and transmission corridors.
Monitoring/Reporting Action	Pre-construction nesting bird survey reports to be completed 72-hours prior to completing maintenance activities that result in vegetation disturbance consistent with the requirements of the NCCP.
Effectiveness Criteria	Site-specific avoidance measures, as necessary, to be identified in the survey report.
Responsible Agency	BLM and CPUC
Timing	72 hours prior to maintenance activities during the nesting season.

Table D.3-6
Mitigation Monitoring, Compliance, and Reporting–ECO Substation Project –Visual Resources

Mitigation Measure	VIS-1a. Reduce impacts at scenic highway and trail crossings. At highway and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected.
Location	Where the transmission line would establish a new transmission corridor and be located within 0.5 mile of a County trail or pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed at the maximum feasible distance from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Effectiveness Criteria	Visual impacts to identified trails and pathways are minimized and transmission line structures are placed the maximum feasible distance from these facilities.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Mitigation Measure	VIS-1b. Reduce impacts at scenic view areas. In scenic view areas (the Jewel Valley Trail and the Jewel Valley Road Pathway) transmission line structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where feasible.
Location	Transmission line structures and lines visible from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed to avoid sensitive features
Effectiveness Criteria	Structures are sited to avoid sensitive features and visual impacts as scenic view areas are reduced.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Mitigation Measure	VIS-3a. Reduce visibility of construction activities and equipment. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, stationary construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 60 days before the start of construction.
Location	All stationary construction areas including staging areas and fly yards.
Monitoring/Reporting Action	CPUC and BLM to verify in the field during construction and following construction
Effectiveness Criteria	Stationary project construction sites, construction yards, and staging areas will be screened during construction, and all construction areas will appear in their original or improved condition following construction.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to confirm implementation during and following construction.
Mitigation Measure	VIS-3b. Reduce construction night-lighting impacts. SDG&E shall design and install all lighting at construction and storage yards and at staging areas and fly yards such that illumination of the project facilities, vicinity, and nighttime sky is minimized. The Construction

	Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the CPUC and BLM. The Plan shall include but is not necessarily limited to the following: • Lighting shall be designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary; • All lighting shall be of minimum necessary brightness consistent with worker safety; and • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
Location	All static project construction sites associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review and approve the Construction Lighting Mitigation Plan before construction and to monitor implementation in the field during construction.
Effectiveness Criteria	The visibility of light bulbs and reflectors at construction yards and staging areas is minimized from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the construction site and into the nighttime sky to the extent feasible.
Responsible Agency	CPUC and BLM
Timing	SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. CPUC and BLM to review and approve plan before the start of construction and confirm implementation of plan during construction.
Mitigation Measure	VIS-3c. Reduce construction impacts to natural features. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
Location	At all construction work areas of the proposed ECO Substation Project transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM monitors to ensure compliance with restrictions regarding paint and discoloring agents.
Effectiveness Criteria	No paint or permanent discoloring agents are detected and reported by CPUC monitors.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to monitor for compliance during construction.
Mitigation Measure	VIS-3d. Reduce in-line views of land scars. Construct access or spur roads at appropriate angles from the originating primary travel facilities to minimize extended in-line views of newly graded terrain, when feasible. Contour grading should be used where feasible to better blend graded surfaces with existing terrain. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days prior to the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	CPUC and BLM.
Timing	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.

Mitigation Measure	VIS-3e. Reduce visual contrast from unnatural vegetation lines. In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and shall patrol construction routes to prevent vandalized access and litter cleanup until all areas where vegetation was removed are returned to pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the propose ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of unnatural vegetation lines will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC and BLM
Timing	SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction. CPUC and BLM to review construction and restoration plans before the start of construction and to verify implementation following construction.
Mitigation Measure	VIS-3f. Minimize vegetation removal. Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas to be restored shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this measure.
Location	All project component sites where surface disturbance is proposed for the Proposed ECO Substation Project and transmission line corridors
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction
Effectiveness Criteria	The occurrence of vegetation removal will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction.
Mitigation Measure	VIS-3g. Reduce visual contrast associated with substation and ancillary facilities. SDG&E shall submit to the CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structure buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to the CPUC for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include: • Specification and 11 x 17-inch color simulations at life-size scale of the treatment proposed for use on project structures, including structures treated during manufacture • A list of each major project structure, building, tower and/or pole, and fencing specifying the color{s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation) • Two sets of brochures and/or color chips for each proposed color

	• A detailed schedule for completion of the treatment • Procedures to ensure proper treatment maintenance for the life of the project. SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated on site, until SDG&E receives notification of approval of the Surface Treatment Plan by the CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the CPUC that all buildings and structures are ready for inspection.
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project.
Monitoring/Reporting Action	CPUC to review Surface Treatment Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will blend with the landscape to the extent feasible.
Responsible Agency	CPUC
Timing	CPUC to review Surface Treatment Plan before the start of construction and to verify implementation following construction.
Mitigation Measure	VIS-3h. Screen substations and ancillary facilities. SDG&E shall provide a Final Screening/Landscape Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities and helps the facility blend in with the landscape. Similar to the use of berms in the Conceptual Landscape Plans prepared for the PEA, the use of berms to facilitate project screening may also be incorporated into the Final Plan. SDG&E shall submit the Plan to the CPUC for review and approval at least 90 days before installing the landscape screening. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to: • An 11 x 17-inch color simulation of the proposed landscaping at 5 years • A plan view to scale depicting the project and the location of screening elements • A detailed list of any plants to be used, their size and age at planting, the expected time to maturity, and the expected height at 5 years and at maturity • SDG&E shall complete installation of the screening/landscape plan before the start of project operation • SDG&E shall notify the CPUC within 7 days after completing installation of the screening/landscape plan that the screening components are ready for inspection.
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Final Screening/Landscape Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will be adequately screened and will blend with the landscape to the extent feasible.
Responsible Agency	CPUC
Timing	CPUC to review Final Screening/Landscape Plan before the start of construction and verify implementation following construction.
Mitigation Measure	VIS-3i. Reduce potential visual contrast of transmission structures. SDG&E will use dulled-metal-finish transmission structures and non-specular conductors.
Location	At all substation facilities and along the transmission line alignment (ECO Substation Project and transmission line corridors)
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Effectiveness Criteria	The occurrence of visual contrast from transmission structures will be minimized, and

	structures will blend with the landscape to the extent feasible.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Mitigation Measure	VIS-3j. Reduce potential transmission conductor visibility and visual contrast. The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans to reduce the degree of visual contrast caused by the new facilities: • All new conductors and re-conductored spans to be non-specular to reduce conductor visibility and visual contrast. • Where revisions would not conflict with existing design considerations to avoid sensitive resources (including hydrological, cultural, and biological resources), no new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from sensitive viewing locations immediately downhill of the structures.
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that conductors are non-specular and that access roads do not directly approach existing or proposed towers in a straight line from sensitive viewing locations
Effectiveness Criteria	The visibility of conductors will be minimized, and the visual impacts of access roads on sensitive viewing locations will be minimized.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and verify implementation of design measures following construction
Mitigation Measure	VIS-3k. Reduce potential visual contrast from transmission structure spacing. Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.
Location	All transmission line structures associated with the proposed ECO Substation Project and project alternatives
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that spacing of structures matches existing transmission structures
Effectiveness Criteria	The occurrence of visual contrasts from transmission structures will be minimized.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and to verify implementation of design measures following construction
Mitigation Measure	VIS-3l. Reduce potential view blockage and visual contrasts of structures. Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence, where feasible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts.
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that structures are not planned directly in front of residents or in direct line of sight from residences.
Effectiveness Criteria	The occurrence of view blockage from transmission structures will be minimized.
Responsible Agency	CPUC and BLM
Timing	SDG&E to consult with affected property owners on structure siting to reduce land use and visual impacts before obtaining Permit to Construct
Mitigation Measure	MM VIS-3m: Reduce visual impacts resulting from native tree removal. In the event that ornamental or native trees within the project area will be removed due to project design and grading, SDG&E shall prepare a Tree Replacement Plan to be submitted with the Screening/Landscape Plan. The Tree Replacement Plan shall include but is not limited to the following: • Tree Removal Locations: Indicate the size, type, and location of each tree (additional

	items, such as a tree survey by a professional engineer or licensed land survey, may be required.) • Assessment of the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required). • Photos of the site and/or trees to be removed. • Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees. The Tree Replacement Plan must minimize mature tree loss to the degree feasible. The Tree Replacement Plan shall be submitted to the CPUC for approval at least 90 days prior to planned tree removal. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the SDG&E shall prepare and submit the revised Tree Replacement Plan for review and approval.
Location	At the Boulevard Substation Rebuild site.
Monitoring/Reporting Action	CPUC to review Tree Replacement Plan in conjunction with the Screening/Landscape Plan before start of construction and to verify implementation following construction
Effectiveness Criteria	Visual impacts resulting from native tree removal would be reduced.
Responsible Agency	CPUC
Timing	The Tree Replacement Plan shall be submitted to the CPUC by SDG&E for approval at least 90 days prior to planned tree removal. CPUC to verify implementation of plan following construction.
Mitigation Measure	VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities. SDG&E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. The Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days before ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following: • Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary. • All lighting shall be of minimum necessary brightness consistent with worker safety. • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
Location	At substations and ancillary facilities included in the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Lighting Mitigation Plan before the start of construction and verify implementation following construction

Effectiveness Criteria	Light bulbs and reflectors at substations would not be visible from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the facility boundary and into the nighttime sky.
Responsible Agency	CPUC
Timing	CPUC to review Lighting Mitigation Plan before the start of construction and to verify implementation following construction.
APM	ECO-AES-1. To reduce potential visual contrast and integrate the ECO Substation's appearance with the desert landscape setting, when project construction has been completed, all disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation in accordance with the Landscaping Plan included as Appendix 5: Landscape Concept Plans.
Location	At the ECO Substation
Monitoring/Reporting Action	CPUC to review and approve East County Substation Landscape Concept Plan
Effectiveness Criteria	All disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation.
Responsible Agency	CPUC
Timing	CPUC to review East County Substation Landscape Concept Plan before issuance of notice to proceed; CPUC to ensure recontouring and revegetation after construction
APM	ECO-AES-2. When project construction has been completed, all disturbed terrain at the Boulevard Substation site will be restored through recontouring, revegetation, and landscaping in accordance with the Boulevard Substation Landscape Concept Plan included as Appendix 5: Landscape Concept Plans. To provide screening and thus reduce potential project visibility, the Boulevard Substation Landscape Concept Plan includes larger shrubs and trees that will partially screen views of the substation from Old Highway 80 and from adjacent residential properties.
Location	At the rebuilt Boulevard Substation
Monitoring/Reporting Action	CPUC to review Boulevard Landscape Plan
Effectiveness Criteria	All disturbed terrain at the Boulevard Substation Rebuild site will be restored through recontouring and revegetation.
Responsible Agency	CPUC
Timing	CPUC to review the Boulevard Substation Landscape Concept Plan before issuance of notice to proceed; CPUC to ensure recontouring and revegetation after construction
APM	ECO-AES-3. To reduce the project's potential visibility from Old Highway 80, the underground portion of the new 138 kV transmission line will be extended an additional distance of approximately 600 feet to the south, and the steel cable riser pole will be relocated to replace structure SP-2.
Location	At the underground portion of the 138 kV transmission line before entering the Boulevard Substation Rebuild site (proposed ECO Substation Project).
Monitoring/Reporting Action	CPUC to review construction plans to verify that transmission line has been extended and that the steel cable riser pole is relocated
Effectiveness Criteria	Visibility of transmission cable riser pole from Old Highway 80 is reduced, and the new 138 kV transmission line is extended.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify implementation during construction

Table D.4-16
Mitigation Monitoring, Compliance, and Reporting – Proposed ECO Substation Project – Land Use

Mitigation Measure	LU-1a. Prepare Construction Notification Plan. Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the BLM and CPUC for approval. The Plan

	shall identify the procedures that will be used to inform property owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The Plan shall address at a minimum two of the following components: • Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed. • Newspaper advertisements. Fifteen days prior to construction within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction. • Public venue notices. Thirty days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, and other public venues to inform affected residents of the purpose and schedule of construction activities. • Public liaison person and toll-free information hotline. SDG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbances. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.
Location	ECO Substation Project and any project component where residences are located within 1,000 feet of project components
Monitoring/Reporting Action	SDG&E shall conduct public notification as defined. CPUC/BLM monitor verifies that SDG&E submits Construction Notification Plan, which identifies complete notification and public inquiry process.
Effectiveness Criteria	SDG&E to provide CPUC/BLM with construction notices for review and approval at least 60 days prior to construction. Notices will provide advance notice of construction activities to limit noise, dust, and disruption impacts.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction
Mitigation Measure	LU-1b. Notify property owners and provide access. To facilitate access to properties obstructed by construction activities, SDG&E shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.
Location	Along the entire ECO Substation Project and project components where residences are located within 1,000 feet of project components
Monitoring/Reporting Action	SDG&E shall conduct public notification as defined.
Effectiveness Criteria	CPUC/BLM to inspect periodically to verify compliance and continued access to properties are maintained.
Responsible Agency	CPUC/BLM
Timing	During construction where residences are within 1,000 feet of the transmission line
Mitigation Measure	LU-2. Revise project elements to minimize land use conflicts. At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which

	to identify conflicts with any planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned. SDG&E shall provide a written report to the CPUC/BLM providing evidence of the notice to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to the CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a variance. Where a reroute is proposed, the CPUC or BLM will review and agree to accept or reject individual reroutes. The CPUC or BLM may also recommend compromise reroutes for any of the parcels for which responses were provided in a timely fashion.
Location	ECO Substation Project and transmission line corridors
Monitoring/Reporting Action	Confirm receipt of notice and results prior to final design
Effectiveness Criteria	Provision of a report indicating contents of notice, distribution of notice, and any responses and resolutions
Responsible Agency	CPUC/BLM
Timing	Providing acceptable report prior to final design that verifies compliance with measure

Table D.5-5
Mitigation Monitoring, Compliance, and Reporting – Proposed ECO Substation Project – Wilderness and Recreation

Mitigation Measure	WR-1 Provide notice for access restrictions or anticipated closures to wilderness and recreation areas. SDG&E shall coordinate with the County of San Diego to ensure that proper signage is posted in advance for any access restriction and/or anticipated closures of wilderness and recreation areas (including trails and pathways) so that recreational users may plan accordingly. Signage shall be posted 30 days prior to construction at public venues such as rest stops, resource management offices, and along access routes to known recreational destinations that would be restricted, blocked, or detoured. Notices shall provide information on alternative recreation areas that may be used during the closure of these facilities.
Location	Along the transmission line corridor, between approximate MP 7.6 and MP 12
Monitoring/Reporting Action	CPUC will verify that the County of San Diego has reviewed SDG&E's Construction Notification Plan and will ensure its implementation.
Effectiveness Criteria	Approval and implementation of the Plan Recreationists potentially impacted are informed of construction activities; procedures are established and documented for taking and responding to construction comments and concerns.
Responsible Agency	CPUC
Timing	45 days prior to construction for Construction Notification Plan

Table D.7-15
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Cultural and Paleontological Resources

Mitigation Measure	CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural

	Resources Management Plan: A Historic Properties Treatment Plan–Cultural Resources Management Plan (HPTP-CRMP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA shall be developed among all federal, state, and local agencies to implement the HPTP-CRMP. As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction areas and where people have to stay within the easement, ROW, or SDG&E-owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs. The HPTP-CRMP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. These areas of high sensitivity shall also be monitored by qualified archaeologists during construction. If recommended NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRMP shall provide a process for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. Other treatment measures to resolve adverse effects could include but are not limited to historical documentation, photography, collection and publishing of oral histories, field work to gather information for research purposes or some form of public awareness or interpretation. A description of alternative treatments to resolve adverse effects other than data recovery excavations could also include: • Relocation of construction component to portions of historic properties that do not contribute to the qualities that make the resource eligible for the NRHP and CRHR; • Deeding cemetery of other sensitive areas outside of the substation property and related facilities into open space in perpetuity and providing necessary long-term protection measures; • Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools; • Providing Native American tribes future access to traditional and cultural areas on the Project site, but outside of the substation property and related facilities, after completion of Project construction; and • SDG&E financial support of existing cultural centers for the preparation of interpretive displays. The HPTP-CRMP shall include provisions for reporting and curation of artifacts and data at a facility that is approved by the agency. The applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. As part of the HPTP-CRMP, processing of all collected cultural remains shall be described. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRMP shall indicate the locations where Native American monitors shall be required. CUL-1B, Avoid and Protect Significant Resources. SDG&E shall design and implement a long-term management plan to protect NRHP-eligible, CRHR-eligible sites or sites treated as eligible for project management purposes from direct impacts of project operation and maintenance and from indirect impacts (such as erosion

	and access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM and other consulting parties to design measures that shall be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include a context for understanding the cultural resources within the ROW and describe how protective measures will be undertaken for the cultural resources within the ROW or main project area that may experience operational and access impacts as a result of the project. Measures considered shall include demarcation of Environmentally Sensitive Areas (ESA's) during any subsequent project construction maintenance activities for all historic properties within 50 feet of direct impact areas, permanent restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting the resources. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to resources. Monitoring of sites selected during consultation with BLM and CPUC shall be conducted annually by a professional archaeologist for a minimum period of 5 years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM and CPUC within 1 month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion, unauthorized excavation or collecting or vehicle or maintenance impacts. For properties that have been impacted, SDG&E shall provide recommendations for mitigating impacts and for improving protective measures. After 5 years of resource monitoring, the BLM and CPUC shall evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM and CPUC may require that SDG&E revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of the project operation. If annual monitoring program identifies adverse effects to properties eligible for listing on the NRHP and CRHR from operation or long-term presence of the project, or if, at any time, SDG&E, the BLM or CPUC become aware of such adverse effects SDG&E shall notify the BLM and CPUC immediately and shall implement additional protective measures, as directed by the BLM and CPUC. At the discretion of the BLM and/or CPUC such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resource studies or protection. CUL-1C, Training for Contractor: All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SDG&E shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that shall be avoided, and that travel and construction activity shall be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SDG&E, its representatives, or employees shall not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws, and violations shall be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction: • All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for

	collection, vandalism, or inadvertent destruction of cultural resources. • SDG&E shall provide training for supervisory construction personnel describing the potential for exposing cultural resources and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources CUL-1D, Construction Monitoring: Prior to issuance of grading permit(s), the SDG&E shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. If ESA fencing has been established and the possibility of buried cultural deposits is determined to be low after initial ground-disturbance, the on-site professional archaeologist may determine that full-time monitoring is no longer required in that area. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered. CUL-1E, Discovery of Unknown Resources: In the event that previously unknown cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of recommended significant cultural resources. The process for handling inadvertent discoveries shall be documented in the CRMP. It shall detail the methods, consultation procedures, and timelines for assessing register eligibility, formulating a mitigation plan, and implementing treatment should avoidance and protection of the resource not be possible. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and SHPO prior to implementation. The archaeologist in coordination with the BLM shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the CPUC and BLM, in consultation with other appropriate agencies and local governments, and the SHPO. CUL-1F, Control Unauthorized Access: SDG&E shall coordinate with the authorized officer of the BLM or local landowner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the BLM. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&E shall document its coordination efforts with the BLM of the road/trail and provide this documentation to the CPUC and BLM 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates. CUL-1G, Funding of Law Enforcement Patrols: To control unauthorized use of project access roads and to provide for the general protection of cultural and natural resources made more accessible as a result of the project facilities, SDG&E shall provide funding to BLM and CPUC for law enforcement patrols for the term of the ROW. The BLM and CPUC will formulate what funding is reasonable to implement the above. CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups. SDG&E shall provide assistance to the BLM and CPUC, as requested by the BLM and

	CPUC, to continue required government to government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the National Historic Preservation Act) and other traditional groups to identify and assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM and CPUC, SDG&E shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP-CRMP and implemented by SDG&E and may include the following: • Information regarding further developments in the project; • Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities; • Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists; • The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and • Copies of all site records, survey reports, or other environmental documents.
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan. All historic properties in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan in effect throughout construction
Mitigation Measure	CUL-2, Human Remains: All location of known Native American human remains shall be avoided through project design and designation as ESAs if within 100 feet of project components. During construction, if human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, if human remains are encountered on non-federal (state, county, or private) lands, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign. SDG&E shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. SDG&E shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM and CPUC.
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	All human remains in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	CPUC/BLM
Timing	For the duration of project
Mitigation Measure	PALEO-1A, Inventory and evaluate paleontological resources in the Final APE: Prior to construction, SDG&E shall conduct and submit to the BLM and CPUC for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.

	PALEO-1B, Develop Paleontological Monitoring and Treatment Plan: Following completion and approval of the paleontological resources inventory and prior to construction, SDG&E shall prepare and submit to the CPUC and BLM for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan. PALEO-1C, Monitor Construction for Paleontology: Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), SDG&E shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist. PALEO-1D, Conduct Paleontological Data Recovery: If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan). PALEO-1E, Train Construction Personnel: Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in

	preparation for construction: • All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. • The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils. • Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).
Location	Areas identified in PALEO-1A, PALEO-1B
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction

Table D.8-16
Mitigation Monitoring and Compliance Reporting – ECO Substation Project – Noise

Mitigation Measure	MM NOI-1 Blasting Plan SDG&E will prepare a blasting plan that will reduce impacts associated with construction-related noise and vibrations related to blasting. The blasting plan will be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan will include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting. Noise calculations in the blasting plan will account for blasting activities and all supplemental construction equipment. The final blasting plan and pre-blast survey shall meet the requirements provided below, as well as those outlined in Mitigation Measure HAZ-4b. The blasting plan will include a schedule to demonstrate, where feasible, construction blasting to occur infrequently enough that it will not exceed the County's impulsive noise standard because blasting would not occur for more than 25% (15 minutes) during a 1-hour period due to the short time duration of a blast. Where this is not possible, other construction blasting would be coordinated with impacted building occupants to occur in their absence, or at other acceptable times, to avoid nuisance or annoyance complaints. If necessary, the applicant will temporarily relocate impacted residents on an as-needed basis for the duration of the blasting activities. The applicant will be responsible for temporary relocation expenses (i.e.; expenses for temporary housing) incurred by impacted residents if relocation is necessary during blasting activities. To ensure that potentially impacted residents are informed, the applicant will provide notice by mail to all property owners within 300 feet of the project at least 1 week prior to the start of construction activities. Blasting would be completed between 7 a.m. and 7 p.m. to be compliant with County of San Diego noise ordinances. A rock anchoring or min-pile system may be used to reduce the risk of damage to structures during blasting activities. Fair compensation for lost use will be provided to the property owner. Physical damage to potentially vulnerable structures will be addressed by avoiding construction blasting near the structures wherever possible, and, if necessary, non-blasting construction methods will be evaluated. If adversely affected, structures shall be restored to an equivalent condition, and fair compensation for lost use will be provided to the owner. If necessary, the use of portable noise barriers to reduce excessive noise impacts shall be used between the source and affected occupied properties. Noise barriers that break the line of sight would provide 5 dB attenuation. Increasing the height of the barrier would increase the attenuation of the barrier. A 5 dBA to 10 dBA attenuation is considered reasonably feasible. Supplemental construction equipment, such as drill rigs, may be used to support blasting. At a distance of 80 feet, drill rig noise emissions are approximately 75 dBA L_{eq}. Drill rigs, without mitigation, have the potential to cause temporary noise impacts if used less than 80 feet from the property line of an occupied residence. The blasting plan will include measures to reduce noise impacts resulting from the use of drill rigs at less than 80 feet from a property line. Such measures may include temporary noise barriers or limited hours of operation to reduce the impact to within the County standard.
Location	138 kV Transmission Line
Monitoring/Reporting Action	Plan prepared prior to construction. California Public Utilities Commission (CPUC) and Bureau of Land Management (BLM) will ensure that these measures are carried out during project construction.
Effectiveness Criteria	Achieve minimum 5 dBA to 10 dBA noise reduction
Responsible Agency	CPUC/BLM
Timing	Plan prepared prior to construction and in effect throughout construction
Mitigation Measure	MM NOI-2 Conductor configuration selection to address noise impacts As part of the project's design selection process, the proper conductor configuration shall be

	selected so that the corona noise does not exceed the County's noise ordinance limits along the transmission line corridor measured during worst-case weather conditions at or beyond 6 feet from the boundary of the easement upon which the transmission line is located.
Location	SWPL Loop-In
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out prior to project construction.
Effectiveness Criteria	Achieve minimum 5 dBA to 10 dBA noise reduction
Responsible Agency	CPUC
Timing	Prior to construction

Table D.9-8
Mitigation Monitoring Compliance and Reporting – ECO Substation Project – Transportation and Traffic

Mitigation Measure	TRA-1. Prepare and implement a Traffic Control Plan. At minimum, the plan will include the following: • SDG&E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the project area to the greatest extent possible. • SDG&E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches. • Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration. • Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used. • All Caltrans' standards for utility encroachments shall be met. • The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual. • Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized. • New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur. • For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWs). • Utilities shall not be located in median areas. • Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed. • Supports for overhead lines crossing freeways shall be located outside the controlled-access ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone (20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways. • New installations shall not impair sight distances. • SDG&E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts. • SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness. SDG&E shall provide a draft copy of the Traffic Control Plan to the agencies listed for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back

	to SDG&E, and plan revisions will address each comment to the satisfaction of the commenting agency. The final plan will be submitted to the CPUC and BLM with input from commenting agencies and provided to SDG&E for implementation during all construction activities.
Location	At construction zones along proposed ECO Substation Project and utility corridors
Monitoring/Reporting Action	CPUC, BLM, San Diego County, and Caltrans (if required) will review Traffic Control Plan. The CPUC and BLM will ensure its implementation. For coordination with emergency service providers, document coordination with providers, including provision of construction schedule shall be provided at the time of submittal of the Traffic Control Plan.
Effectiveness Criteria	Approval and implementation of the plan. For coordination with emergency service providers: evidence of coordination.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Mitigation Measure	TRA-2. Repair roadways damaged by construction activities. If damage to roads occurs, SDG&E shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired at SDG&E's cost. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.
Location	All roads used to access construction sites
Monitoring/Reporting Action	Review documentation to ensure that SDG&E obtained permits for construction within each road ROW prior to construction. Verify that each affected roadway has been satisfactorily restored and/or reconstructed within 30 days of the end of the construction.
Effectiveness Criteria	Restoration/maintenance of roads to preconstruction conditions as determined by the affected public agency
Responsible Agency	CPUC/BLM
Timing	After construction is completed on each affected roadway
Mitigation Measure	TRA-3. Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection. SDG&E shall consult with the FAA, DOD, and U.S. Customs and Border Protection (San Diego Sector) to avoid potential safety issues associated with proximity to airports, military bases or training areas, and land strips and to determine where Border Protection aircraft operate in the County. Prior to construction, SDG&E shall provide written notification to the FAA, the U.S. Air Force Regional Environmental Coordinator (or appropriate DOD representative), U.S. Customs and Border Protection (San Diego Sector), and to the CPUC and BLM, stating when and where the new transmission lines and towers will be erected, and shall install markers as requested by the U.S. Customs and Border Protection or FAA. SDG&E shall also provide all agencies listed above with aerial photos or topographic maps clearly showing the new lines and towers.
Location	Along 138 kV transmission line alignment
Monitoring/Reporting Action	Evidence of notification and submittal of aerial photos and/or topographic maps to FAA, DOD, U.S. Customs and Border Protection, CPUC and BLM
Effectiveness Criteria	Evidence of notification and sharing of information about the location of the new lines and towers.
Responsible Agency	CPUC and BLM
Timing	Evidence of notification shall be provided to the CPUC and BLM after final engineering and prior to construction

Table D.10-13
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Public Health and Safety

Mitigation Measure	HAZ-1a. Hazardous Materials Management Plan. Prior to approval of final construction plans, SDG&E shall prepare an HMMP for the construction phase of the project, which shall be reviewed and approved by the appropriate agency, and shall include the

	following components: • The plan shall identify all hazardous materials that will be present on any portion of the construction site, including, but not limited to, fuels, solvents, and petroleum products. The plan shall address storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan shall establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. • The plan shall identify secondary containment and spill prevention countermeasures, as well as a contingency plan to identify potential spill hazards, how to prevent their occurrence, and responses for different quantities of spills that may occur. Secondary containment and countermeasures shall be in place throughout construction so that if any leaks or spills occur, responses will be made immediately. • The plan shall identify materials (and their locations) that will be on site and readily accessible to clean up small spills (i.e., spill kit, absorbent pads, and shovels). Such emergency spill supplies and equipment shall be clearly marked and located adjacent to all areas of work and in construction staging areas. The plan shall identify the spill-response materials that must be maintained in vehicles and substation sites during construction and procedures for notification to the appropriate authorities. • The plan shall identify adequate safety and fire suppression devices for construction-related activities involving toxic, flammable, or explosive materials (including refueling construction vehicles and equipment). Such devices shall be readily accessible on the project site, as specified by the County's Fire Department and per the Uniform Building Code and Uniform Fire Code. The plan shall be included as part of all contractor specifications and final construction plans to the satisfaction of the appropriate agency. The plan shall also identify requirements for notices to federal and local emergency response authorities and shall include emergency response plans. Prior to construction, all contractor and subcontractor personnel shall receive training regarding the components of the HMMP, as well as applicable environmental laws and regulations related to hazardous materials handling, storage, and spill prevention and response measures. SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to BLM and CPUC at least 30 days prior to construction.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Mitigation Measure	HAZ-1b. Health and Safety Program. Prior to approval of final construction plans, SDG&E shall prepare a Health and Safety Program for each applicable phase of the project (i.e., construction, operation, and decommissioning). The program shall be developed to protect both workers and the general public during all phases of the project. The program shall be implemented to educate construction workers about the hazards associated with the particular project site and the safety measures that must be taken to prevent injury. The program shall include standards regarding occupational safety, safe work practices for each task, hazard training requirements for workers, and mechanisms for documentation and reporting. Regarding occupational health and safety, the program should identify all applicable federal and state occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; OSHA standard practices for safe use of explosives and blasting agents; and measures for reducing occupational EMF exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program should include a training program to identify hazard training

	requirements for workers for each task and establish procedures for providing required training to all workers. The program should include worker training regarding how to identify potentially contaminated soils and/or groundwater. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established. The program should identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction or decommissioning activities. Such fencing should be designed to restrict transient traffic, off-highway vehicle (OHV) use, and the general public from accessing areas under construction and should be removed once construction or decommissioning activities are complete. The program should also identify appropriate measures to be taken during operation of the project to limit public access to hazardous facilities (e.g., permanent fencing, locked access). In order to inform workers and the general public of the dangers of abandoned mines, pamphlets with the "Stay Out-Stay Alive" information used by federal and state governments should be distributed as part of the program. SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the program for all construction activities. The program shall be submitted to BLM and CPUC at least 30 days prior to construction. In addition, SDG&E shall implement Sempra Energy's Health and Safety Program during the operational phase of the project.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC and BLM
Timing	Program in effect throughout construction
Mitigation Measure	HAZ-1c. Waste Management Plan. Prior to approval of final construction plans, SDG&E shall prepare a Waste Management Plan, which shall determine waste procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures. SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to CPUC and BLM at least 30 days prior to construction.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Mitigation Measure	HAZ-1d. Testing for environmental hazards associated with demolition. Prior to demolition of the existing Boulevard Substation and surrounding buildings, soil, conduit, equipment, and structures shall be tested for environmental hazards, including oil, lead-based paint, and asbestos. An asbestos and lead-based paint survey shall be performed by a Cal/OSHA certified Asbestos Consultant/Site Surveillance Technician and a California Department of Public Health (CDPH) certified Inspector/Assessor, Sampling Technician, or Program Monitor. The survey shall be performed in accordance with the applicable state guidance to identify asbestos containing materials (ACM), asbestos containing construction materials (ACCM), and lead-based paint (LBP) as defined in the California Code of Regulations. If ACM, ACCM, or LBP is identified, abatement and disposal of all regulated materials shall be performed by a Cal/OSHA/CDPH certified abatement contractor prior to or during the demolition process.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Program in effect throughout construction
APM	HAZ-2. Phase II Environmental Site Assessment. A Phase II Environmental Site Assessment (ESA) shall be conducted on the existing Boulevard Substation parcel after the equipment has been removed in order to determine if there is any subsurface contamination.

	If required by the Phase II ESA investigation, remediation shall occur in accordance with all applicable federal, state, and local regulations.
Location	Existing Boulevard Substation site
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC
Timing	After equipment is removed from existing Boulevard Substation parcel
APM	HAZ-3. Boulevard Substation Dismantling. During the Boulevard Substation dismantling process, the existing equipment to be dismantled shall be tested in accordance with applicable federal, state, and local standards to determine appropriate recycle, reuse, or disposal alternatives for the equipment.
Location	Existing Boulevard Substation site
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC
Timing	During the Boulevard Substation dismantling process
Mitigation Measure	HAZ-2a. Test for pesticides/herbicides on currently or historically farmed land. In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing shall be prepared in consultation with the County Agricultural Commission, conducted by an appropriate California licensed professional, and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction. Results of the laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM at least 30 days prior to construction. If soil or groundwater contamination is confirmed as a result of soil sampling, SDG&E shall immediately stop work and notify the designated environmental field representative. All work in the contaminated area shall cease, the work shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the contaminated area may continue as determined by the environmental field representative. Excavated materials containing elevated levels of pesticides or herbicides would require special handling and disposal according to procedures established by the regulatory agencies. Effective dust control suppression procedures shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. SDG&E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction
Mitigation Measure	HAZ-2b. Contingency plan for encountering contaminated soils. If soil or groundwater contamination is suspected or encountered during grading or excavation activities (e.g., unusual soil discoloration or strong odor), SDG&E's contractors or subcontractors shall immediately stop work and notify the designated environmental field representative. All work in the area of suspected contamination shall cease, the work area shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the suspected area may continue as determined by the environmental field representative. Preliminary samples of the soil, groundwater, or suspected material shall be taken by OSHA-trained individuals and sent to a California Certified Laboratory for characterization. If the sample testing determines that contamination is not present, work shall continue at the

	previously suspected site. If contamination is found above regulatory limits, however, the appropriate regulatory agency (e.g., RWQCB or Certified Unified Program Agency (CUPA)) responsible for responding to and providing environmental oversight of the region shall be notified in accordance with state or local regulations. In addition, SDG&E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials. Documentation of the suspected contamination shall be made in the form of a report, identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the BLM and CPUC for review and approval.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Mitigation Measure	HAZ-3. Soil testing for lead contamination. Soil samples shall be collected and tested from all excavation sites within 500 feet of any area identified as a current or historical shooting range to determine the presence of lead and extent of any contamination. The sampling and testing shall be conducted by a California licensed professional and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the project's lead agency for review and approval at least 60 days prior to excavation. Results of the laboratory testing and recommended resolutions for handling and excavating any materials found to exceed regulatory requirements shall be submitted to the project's lead agency 30 days prior to excavation. In addition, a Soil/Lead Contamination Handling Plan shall be prepared to address appropriate procedures in the event that lead contamination is discovered as a result of soil testing. This plan shall contain provisions for a lead-awareness program for workers, as well as guidelines for the identification, removal, transport, and disposal of lead-impacted materials. This plan shall also emphasize that all activities within, or in close proximity to, contaminated areas must follow applicable environmental and hazardous waste laws and regulations. This plan shall be submitted to the project's lead agency 30 days prior to excavation. Documentation of any confirmed or suspected contamination identified during testing or excavation shall be made in the form of a report identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM for review and approval.
Location	ECO Substation Project site
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Prior to initiating excavation or grading activities within 500 feet of any area identified as a current or historical shooting range; plan in effect throughout construction
Mitigation Measure	HAZ-4a. Safety Assessment. Prior to commencing construction activities, SDG&E shall conduct a safety assessment to describe potential safety issues associated with the project, how safety prevention measures would be implemented, where medical aid kits would be located, the appropriate response action for each safety hazard, and procedures for notifying the appropriate authorities. The assessment shall address issues such as site access, construction hazards, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM

Timing	Plan in effect throughout construction
Mitigation Measure	HAZ-4b. Blasting Plan. If blasting is deemed necessary for the construction of project components, SDG&E shall conduct a pre-blast survey and prepare a blasting plan. A written report of the pre-blast survey and final blasting plan shall be provided to the appropriate regulatory agency and approved prior to any rock removal using explosives. In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions, as well as those outlined in Mitigation Measure NOI-1: The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by SDG&E. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan. The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement. The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed turbine foundation locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. SDG&E, its general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Mitigation Measure	HAZ-5a. Spill Prevention Control and Countermeasure Plan. Prior to the facility going online and becoming operational, SDG&E shall prepare an SPCC plan to address proper procedures for storage, handling, spill response, and disposal of hazardous materials for the ongoing operation of the project. The SPCC plan shall meet all requirements outlined in Title 40 of the Code of Federal Regulations, Part 112 (40 CFR Part 112). The SPCC plan shall be reviewed and approved by the appropriate agency's engineering department and certified by a Registered Professional Engineer. The SPCC plan shall identify operating procedures that the facility will implement to prevent oil spills; control measures installed to prevent oil from leaving the project site; and countermeasures to contain, clean up, and mitigate the effects of an oil spill. A copy of the plan shall be kept on site at the facility and made available for review by the U.S. EPA Regional Administrator during normal business hours. The plan shall be amended as required under 40 CFR Part 112. The plan shall be reviewed, evaluated, and updated (if necessary) every 5 years.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout operation of facility
Mitigation Measure	HAZ-5b. Hazardous Materials Business Plan. Prior to the facility going online and becoming operational, SDG&E shall prepare an HMBP in accordance with all related requirements in California Health and Safety Code, Chapter 6.95, Articles 1 and 2. The HMBP shall contain basic information on the location, type, and quantity of hazardous

	materials stored or used by the facility, as well as the health risks associated with each hazardous material. The HMBP shall include three components: an inventory and site map, emergency response plan, and employee training. The plan shall be reviewed and recertified every year and amended as required by California Health and Safety Code, Chapter 6.95, Articles 1 and 2.
Location	ECO Substation Project site
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC
Timing	Plan in effect throughout operation of facility
Mitigation Measure	PS-1a. Minimize electromagnetic and public safety communications. The project shall be designed to minimize EMI (e.g., impacts to radar, microwave, television, and radio transmissions) and comply with FCC regulations. Signal strength studies shall be completed prior to construction and conducted when proposed locations have the potential to impact transmissions. Potential interference with public safety communications systems (e.g., radio traffic related to emergency activities) shall be avoided. In the event the project results in EMI, SDG&E or the facility operator shall work with the owner of the impacted communications system to resolve the problem. Potential measures may include realigning the existing antenna or installing relays to transmit the signal around the project. Additional warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes from project equipment can be quickly recognized.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction and operation
Mitigation Measure	PS-1b. Limit conductor surface potential. Prior to construction, SDG&E shall specify and implement designs that limit the conductor surface electric gradient in accordance with the Institute of Electrical and Electronic Engineers (IEEE) Radio Noise Design Guide.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction and operation
Mitigation Measure	PS-1c. Document complaints of broadcast interference. After energizing the transmission line, SDG&E shall respond to and document all radio/television/equipment interference complaints received and the responsive actions taken. These records shall be made available to the appropriate regulatory agency for review upon request. SDG&E shall refer all unresolved disputes to the approving agency.
Location	ECO Substation Project site and transmission line
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout operation of facility
Mitigation Measure	PS-2. Determine proper grounding procedures and implement appropriate grounding measures. As part of the project siting and construction process, SDG&E's contractor(s) shall identify objects (such as fences, conductors, and pipelines) that have the potential for induced voltages and work with the affected parties to determine proper grounding procedures (Note: CPUC General Order 95 and the NESC do not have specific requirements for grounding). SDG&E shall install all necessary grounding measures prior to energizing the line. At least 30 days prior to energizing the line, SDG&E shall notify in writing all property owners within and adjacent to the project's ROW regarding the date the line is to be energized, subject to the review and approval of the appropriate regulatory agency. The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW. The written notice shall describe the nature and operation of the line, and SDG&E's responsibilities with respect to grounding all conducting objects. In

	addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects that may require grounding and guidelines for maintaining the safety of the ROW. SDG&E shall respond to and document all complaints received and the responsive action taken. These records shall be made available to the appropriate regulatory agency for review upon request. SDG&E shall refer all unresolved disputes to the approving agency for resolution.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	As part of project siting and construction process, but prior to approval of final construction plans; plan in effect throughout construction and operation

Table D.11-21
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Air Quality

Mitigation Measure	AQ-1. The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities: • Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site. • All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust. • All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles. • Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions. • Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material. • Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line. • Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour. • Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task. • Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM_{10}) emissions by 50% or more. • If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule. • All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications.

	• Construction equipment will use electric-powered motors where feasible. • The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour. • The construction contractor will require 90-day, low-NO_x tune-ups for off-road equipment. • Diesel particulate filters will be utilized on heavy equipment where feasible. • Construction activities will comply with all applicable SDAPCD rules and regulations.
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out during project construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Mitigation Measure	AQ-2. All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed. SDG&E shall provide verification that the construction fleet meets the requirements identified as part of this mitigation measure.
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that all off-road equipment meets Tier 2 (or Tier 3) standards.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.

Table D.12-6
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Water Resources

Mitigation Measure	HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction. In compliance with the new SWRCB's NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010), SDG&E shall prepare a project-specific SWPPP before construction begins, and it shall be kept on site throughout the construction process. The SWPPP shall include the following: • Identification of pollutant sources and non-stormwater discharges associated with construction activity. • Specifications for BMPs that shall be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and helicopter landing zones. Specifications shall include: o A plan for training construction crews o A plan for monitoring and inspecting BMPs and site conditions o A plan for sampling and analysis of pollutants (as necessary). • Where applicable, the following shall apply: o Construction impacts shall be minimized to the greatest extent possible o Upon completion of construction phases, roadways shall be reduced to minimum widths needed o Areas disturbed during construction shall be revegetated to their natural states o Construction roadways shall follow natural contours to the extent practical and be designed to minimize stream crossings, avoid wetlands, and maintain surface water runoff patterns to prevent erosion o CDFG guidelines for culverts shall be followed to minimize long-term maintenance and meet a 10-year rain event to minimize trapping of sediment. • Where applicable, the following shall apply to reduce the release of contaminants to the local surface and groundwater: o For on-site storm drain inlets, mark all inlets with the words "No Dumping! Flows to Sensitive Habitat" or similar. o For landscaping, show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. Show self-retaining landscape, if any. State that final landscape plans will preserve existing native trees, shrubs, and ground cover will cover maximum extent possible. o Design landscaping to minimize irrigation, runoff, and use of pesticides and fertilizers that contribute to stormwater pollution. Select plants that are appropriate for site soils, slopes, climate, wind, sun, rain, land use, ecological consistency, and plant interactions. o For outdoor storage of equipment or materials, show storage areas and how they will be covered and what structural features or grading will be incorporated to prevent pollutants from discharging from the site. o Designate areas for vehicle/equipment repair, maintenance, and cleaning, and document how these areas will be contained to prevent pollutant runoff. o For leaking or failure of large power transformers, have 100% containment at each power transformer.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's SWPPP and ensure its implementation
Effectiveness Criteria	Construction and BMPs in place during construction, and kept operating as long as needed.

	Mitigation measure is effective if water quality near the project is maintained
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Mitigation Measure	HYD-2: Avoidance and preventative measures to protect local groundwater during excavation. Prior to excavation, a qualified geologist/hydrologist shall determine the depth of groundwater in areas where excavation would occur. The project shall be designed to avoid areas of shallow groundwater where feasible. In such areas where groundwater cannot be avoided during excavation, the site shall be dewatered during construction, and materials that could contaminate the groundwater shall be kept at least 200 feet from the dewatering activities. An NPDES permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.
Location	Along entire Project Site
Monitoring/Reporting Action	CPUC and BLM will ensure dewatering is completed consistent with NPDES permit requirements.
Effectiveness Criteria	Approval and implementation of the construction plans
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Mitigation Measure	HYD-3: Identification of sufficient water supply Prior to construction SDG&E will prepare comprehensive documentation that identifies one or more confirmed, reliable water sources that when combined meet the project's full water supply construction needs. Documentation will consist of the following: • *Preparation of a groundwater study*. For well water that is to be used, the applicant will commission a groundwater study by a qualified hydrogeologist to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources. The groundwater study will evaluate aquifer properties and aquifer storage. The groundwater study will estimate short and long-term well water supplies from each well proposed to be used, and documentation indicating that each well is capable of producing the total amount of water to be supplied for construction from each well. The groundwater study will estimate short- and long-term impacts of the use of the well(s) on the local groundwater production (short-term extraction for construction water and ongoing O&M water), on all project wells, and on other wells in the project area. The groundwater study will include an assessment of the potential for subsidence brought on by project-related water use in the area. The applicant will provide demonstration of compliance will all applicable laws and regulations and will obtain a County of San Diego Major Use Permit for use of any proposed well prior to construction. • *Documentation of Purchased Water Source(s*). For water that is to be purchased from one or more water/utility district(s), the applicant shall provide written documentation from such district(s) indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The Sweetwater Authority has provided written confirmation of water availability to support the project. Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project.
Location	Along entire Proposed Project site
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's groundwater study and ensure its implementation
Effectiveness Criteria	Water Study verified groundwater quantities and Will Serve Letter quantities add up to equal estimated project construction water needs
Responsible Agency	CPUC/BLM
Timing	Submittal of groundwater study to CPUC and BLM a minimum 60 days prior to project design being completed.
Mitigation Measure	HYD-4: Preparation of a Stormwater Management Plan. SDG&E shall commission an SWMP in compliance with the County of San Diego Major Storm Water Management Plan. The SWMP shall be project specific and developed in conjunction with project design. The SWMP shall include site design BMPs that, where applicable, shall:

	• Maintain predevelopment rainfall runoff characteristics. The BMPs shall: o Locate the project and road improvement alignments to avoid or minimize impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions o Minimize the project's impervious footprint. o Conserve natural and critical areas, such as floodplains, steep slopes, wetlands, and areas with erosive and unstable soil conditions o Where landscape is proposed, drain rooftops, impervious sidewalks, walkways, trails, and patios into adjacent landscaping o Design and locate roadway structures and bridges to reduce the amount of work in live streams, and minimize the construction impacts o Implement the following methods to minimize erosion from slopes: ▪ Disturb existing slopes only when necessary ▪ Minimize cut-and-fill areas to reduce slope lengths ▪ Incorporate retaining walls to reduce steepness of slopes or to shorten slopes ▪ Provide benches or terraces on high cut-and-fill slopes to reduce concentration of flows ▪ Round and shape slopes to reduce concentrated flow ▪ Collect concentrated flows in stabilized drains and channels. • Protect slopes and channels. The BMPs shall: o Minimize disturbances to natural drainages o Convey runoff safely from the tops of slopes o Vegetate slopes with native or drought-tolerant vegetation o Stabilize permanent channel crossings o Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters. o Include other design principles that are comparable and equally effective. • The SWMP shall also incorporate Low Impact Development Features into the project, including but not limited to: o Preserve well-draining soils (Type A or B) o Preserve significant trees o Set back development envelope from drainages o Restrict heavy construction equipment access to planned green/open space areas o Re-till soils compacted by construction vehicles/equipment o Collect and reuse upper soil layers of development site containing organic materials o Curb cuts to landscaping o Use rural swales o Use concave median o Use permeable pavements o Pitch pavements toward landscaping o Use cisterns and rain barrels o Downspout to swale o Use vegetated roofs o Use soil amendments o Reuse native soils o Use smart irrigation systems

	○ Use street trees (HDR 2009b). The SWMP shall ensure that the project follows CDFG guidelines for culverts to minimize long-term maintenance and meet a 10-year rain event to minimize the trapping of sediment.
Location	Along entire Proposed Project Site
Monitoring/Reporting Action	San Diego County Department of Public Works shall ensure the SWMP is in compliance with the County of San Diego Major Storm Water Management Plan and its implementation as written.
Effectiveness Criteria	Approval and implementation of the SWMP
Responsible Agency	CPUC/BLM
Timing	A SWMP that has been reviewed and approved by the San Diego County Department of Public Works shall be submitted to CPUC and BLM 30 days prior to project construction
Mitigation Measure	HYD-5: Implementation of creek-crossing procedures. Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows, and will include anti-erosion action plans for any unplanned rainfall during construction. The applicant shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work. Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. The following measures shall be implemented during horizontal boring (jack-and-bore) operations: (1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. (2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). (3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. (4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful. (The applicant shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued. The plan shall be submitted to the CPUC, County of San Diego, and ACOE 60 days prior to construction.
Location	Along underground portion of transmission line, where applicable
Monitoring/Reporting Action	SDG&E to prepare a directional drill plan with associated SWPPP for CPUC, BLM, and ACOE approval prior to construction, when applicable
Effectiveness Criteria	Directional drilling rather than trenching, where applicable
Responsible Agency	CPUC/BLM/ACOE
Timing	Prior to and during construction
Mitigation Measure	HYD-6: Horizontal Directional Drill Contingency Plan. If horizontal directional drilling is to be used during construction SDG&E shall prepare a Horizontal Directional Drill Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out).

	The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the SWPPP. The plan shall be submitted to the CPUC, BLM, and ACOE 60 days prior to construction. SDG&E shall obtain the required permits prior to conducting work associated with horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued for the horizontal directional drilling.
Location	Along underground portion of transmission line, where applicable
Monitoring/Reporting Action	SDG&E to prepare a horizontal direction drill plan with associated SWPPP for CPUC, BLM, and ACOE approval prior to construction, when applicable
Effectiveness Criteria	Approval and implementation of Horizontal Directional Drill Contingency Plan, if necessary
Responsible Agency	CPUC/BLM/ACOE
Timing	Prior to and during construction
Mitigation Measure	HYD-7: Bury power line below 100-year scour depth. At locations where the buried power line is to be at or adjacent to a streambed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour that, for purposes of this mitigation measure, also includes lateral (stream bank) 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.
Location	Along underground portion of transmission line, where applicable
Monitoring/Reporting Action	SDG&E to provide CPUC and BLM with an engineering report, sealed by a civil engineer registered in the State of California, demonstrating project components that may reasonably be subject to erosion during the life of the project. The report shall also provide plans for protection from scour, as well as an engineering demonstration that the project components will not induce erosion onto adjacent property. CPUC and BLM to monitor to verify compliance during construction.
Effectiveness Criteria	Project components to withstand scour with no adverse effect on adjacent property.
Responsible Agency	CPUC/BLM
Timing	Engineering evaluation, and associated scour/erosion protection design plans, shall be submitted to the CPUC and BLM for review and approval 60 days prior to the initiation of construction. Compliance to be ensured during construction.

Table D.13-9
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Geology, Mineral Resources, and Soils

Mitigation Measure	GEO-1: Erosion Control and Sediment Transport Control Plan. The Erosion Control and Sediment Transport Control Plan would be included with the project grading plans submitted to the County for review and comment. The plan would be submitted to CPUC and BLM a minimum of 60 days prior to project design and would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of Greater San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g.,

	flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Appropriate stabilization measures, such as mulching or seeding, would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways. In disturbed areas where construction equipment has caused compaction of soils (e.g., staging areas, structure sites, temporary spur roads, etc.), soils would be decompacted as necessary prior to seeding, and reclamation would occur to enhance revegetation and reduce potential for erosion.
Location	Along entire proposed project site
Monitoring/Reporting Action	CPUC and BLM
Effectiveness Criteria	Implementation of the Erosion Control and Sediment Transport Control Plan
Responsible Agency	CPUC/BLM
Timing	Compliance to be ensured during construction
Mitigation Measure	GEO-2: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design. The design-level geotechnical studies to be performed by SDG&E shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures shall be utilized for protection of reinforcement, concrete, and metal-structural components against corrosion, including use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also 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 ASTM standards for field and laboratory testing. Design shall conform to applicable sections of the County of San Diego grading codes, CBC, and the standard specifications for public works construction. The geotechnical studies prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.
Location	All project components where structures are proposed.
Monitoring/Reporting Action	Results of geotechnical studies are reviewed to ensure that recommendations are implemented during construction.
Effectiveness Criteria	Assurance that proposed structures are not damaged by geologic conditions.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Mitigation Measure	GEO-3: Conduct geotechnical investigations. The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet CBC and IEEE design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures. The geotechnical investigations prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.
Location	All project components where structures are proposed
Monitoring/Reporting Action	Results of geotechnical investigations are reviewed to ensure that recommendations are implemented during construction
Effectiveness Criteria	Assurance that proposed structures are not damaged by geologic conditions.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Mitigation Measure	GEO-4: Facilities inspections conducted following major seismic event. If large levels

	of ground shaking (such as Modified Mercalli Intensity VI or greater) are experienced or a major earthquake (magnitude 6.0 and above) occurs along the Elsinore Fault, a professional licensed geologist, geotechnical engineer, and structural engineer hired by SDG&E shall perform facilities inspections as quickly as possible. Careful examination shall be conducted of all project facilities. Any required repair or needed improvements shall be implemented as soon as feasible to ensure that the integrity of project facilities has not been compromised.
Location	All project components where structures are proposed.
Monitoring/Reporting Action	Results of facilities inspections are reviewed to ensure that recommendations are implemented following a seismic event.
Effectiveness Criteria	Assurance that proposed structures are not damaged by a seismic event and that repairs are completed as soon as feasible.
Responsible Agency	CPUC/BLM
Timing	Completion of inspections as quickly as possible following a seismic event.

Table D.14-7
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Public Services and Utilities

Mitigation Measure	PSU-1a. Notification of utility service interruption. Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the applicable lead agency.
Location	Locations where existing utility services would have planned interruption of services (proposed ECO Substation Project)
Monitoring/Reporting Action	California Public Utilities Commission (CPUC) and BLM to confirm that SDG&E has posted notices/flyers and that copies have been submitted to the CPUC and BLM for review prior to posting.
Effectiveness Criteria	Residents and landowners are informed of planned outages.
Responsible Agency	CPUC/BLM
Timing	CPUC and BLM to verify planned outage noticing by SDG&E prior to the start of project construction in areas where utility service interruption is known to be unavoidable.
Mitigation Measure	PSU-1b. Protect underground utilities. Prior to construction of the transmission/gen-tie line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following: • Construction plans designed to protect existing utilities and that show the dimensions and location of the finalized alignment • Records that the applicant provided the plans to affected jurisdiction for review, revision, and final approval • Evidence that the project meets all necessary local requirements • Evidence of compliance with design standards • Copies of necessary permits, agreements, or conditions of approval • Records of discretionary decisions made by the appropriate agencies.
Location	Along the entire transmission line route (proposed ECO Substation Project)
Monitoring/Reporting Action	CPUC and BLM to confirm receipt of written documentation from SDG&E.
Effectiveness Criteria	Disruption of existing utilities during construction is minimized.
Responsible Agency	CPUC/BLM
Timing	SDG&E to submit documentation to CPUC and BLM prior to construction of transmission lines
Mitigation Measure	PSU-1c. Coordinate with utility providers. SDG&E shall coordinate with all applicable utility providers

	with facilities located within or adjacent to the project to ensure that design does not conflict with other facilities prior to construction. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased ROW, franchise agreement, or joint use agreement.
Location	Along the entire transmission line route associated with the proposed ECO Substation Project.
Monitoring/Reporting Action	CPUC and BLM to confirm that SDG&E has coordinated with all potentially affected utility providers
Effectiveness Criteria	Utilities are contacted regarding construction plans and existing facilities are avoided during construction.
Responsible Agency	CPUC/BLM
Timing	CPUC and BLM to verify coordination efforts at final design.

Table D.15-8
Mitigation Monitoring, Compliance, and Reporting – ECO Substation Project – Fire and Fuels Management

Mitigation Measure	FF-1: Develop and implement a Construction Fire Prevention/Protection Plan. San Diego Gas & Electric Company (SDG&E) shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of the CPUC. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the CPUC prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:
	• Procedures for minimizing potential ignition
	  ○ vegetation clearing
	  ○ fuel modification establishment
	  ○ parking requirements
	  ○ smoking restrictions
	  ○ hot work restrictions
	• Red Flag Warning restrictions
	• Fire coordinator role and responsibility
	• Fire suppression equipment on site at all times work is occurring
	• Requirements of Title 14 of the California Code of Regulations (CCR), Article 8 #918 "Fire Protection" for private land portions
	• Access road widening (28-foot County roads, 18-foot-wide spur roads)
	• Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)
	• Emergency response and reporting procedures
	• Emergency contact information
	• Worker education materials; kick-off and tailgate meeting schedules
	• Other information as provided by CAL FIRE, SDRFPD, SDCFA, CPUC, and Bureau of Land Management (BLM).
	Additional restrictions will include the following:
	• During the construction phase of the project, SDG&E shall implement ongoing fire patrols. SDG&E shall maintain fire patrols during construction hours and for 1 hour after end of daily construction, and hotwork

	• Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the CAL FIRE, SDRFPD, and SDCFA. • During Red Flag Warning events, as issued daily by the National Weather Service in state responsibility areas (SRAs) and local responsibility areas (LRA), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under Hot Work Procedure. • SDG&E and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF. • All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition. • Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as-needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect. • Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan. SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the CAL FIRE, SDRFPD, and SDCFA for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E and revisions to the plan will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC with input from CAL FIRE, SDRFPD, SDCFA, and BLM, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the ECO Substation Project shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.
Location	At ECO Substation, access roads/work areas.
Monitoring/Reporting Action	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, and CPUC will review SDG&E's Construction Fire Prevention/Protection Plan and ensure its implementation.
Effectiveness Criteria	Approval and implementation of the plan. Quarterly updates to agencies. Work stoppage during Red Flag Warnings and Very High PAL. Coordination with fire authority.
Responsible Agency	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, CPUC.
Timing	Minimum 90 days prior to scheduled start of construction for draft of Construction Fire Prevention/Protection Plan. Minimum 30 days prior to scheduled start of construction for final plan. Plan in effect throughout construction.

Mitigation Measure	FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009)[6] to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan. The revised plan will address the ECO Substation Project and will be implemented during all operational maintenance work associated with the project for the life of the project. Important fire safety concepts that will be included in this document are as follows: • Implement existing practices including Electric Standard Practice 113.1, Maintenance of existing Remote Automated Weather Stations and territory-wide weather system monitoring, adjusted system reclosing policies (patrols), replacement of wood poles with steel in priority areas, and additional measures as may be developed, participation in San Diego County FireSafe Council and other public outreach. • Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans) Fuel modification buffers required by the Fire Protection Plan (FPP) • When vegetation work will occur (prior to any other work activity) • Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread • Coordination procedures with fire authority • Integration of the project's Construction Fire Prevention/Protection Plan content • Personnel training and fire suppression equipment • Fire safety coordinator role as manager of fire prevention and protection procedures, coordinator with fire authority and educator • Communication protocols • Incorporation of CAL FIRE, San Diego Rural Fire Protection District (SDRFPD), and SDCFA reviewed and approved Response Plan mapping and assessment. • Other information as provided by CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC SDG&E will provide a draft copy of the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational; Maintenance Plan to CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E and plan revisions will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC prior to energizing the project and provided to SDG&E for implementation during all operational maintenance activities.
Location	At ECO Substation, access roads/work areas.
Monitoring/Reporting Action	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, and USFS will review and provide comments. CPUC will approve SDG&E's revised Fire Plan for Electric Standard Practice. CPUC and BLM will verify adoption of plan.
Effectiveness Criteria	Approval and implementation of the plan. Quarterly updates to agencies. Work stoppage during Red Flag Warnings and Very High PAL. Ongoing coordination with Fire Authority.
Responsible Agency	CAL FIRE, Rural Fire Protection District, and SDCFA.
Timing	Review and approval of plan minimum 90 days prior to energizing the ECO Substation Project. Revision every 5 years thereafter.
Mitigation Measure	FF-3: Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA). Provide assistance to SDRFPD and SDCFA to improve the response and firefighting effectiveness near electrical substations, transmission lines, and aerial infrastructure based on project risk and fire protection needs. Assistance by SDG&E shall include providing funding for one SDCFA Fire Code Specialist II position to enforce existing fire code requirements, including but not limited to implementing required fuel

	management requirements (e.g., defensible space), in priority areas to be identified by the SDCFA for the life of the project. All fuel management activities shall be in accordance with CEQA Guidelines Section 15304 (i), which indicates that the minor land alternation activities will not have a significant effect on the environment, as the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. In addition, SDG&E is to provide funding to allow SDCFA to employ up to four volunteer/reserve firefighters as part-time code inspectors on a stipend basis for up to 90 days per year for the life of the project. The funding for the SDCFA Fire Code Specialist II position and the four volunteer/reserve firefighters as part-time code inspectors will be provided through proportional contributions, to be determined by CPUC and BLM, from SDG&E (and the other applicants) to the SDCFA prior to construction. A fixed annual fire mitigation fee of approximately $116,600 will be provided by SDG&E to SDRFPD for mitigation funding. The funding will be utilized to assist with the purchase and maintenance of a Type I engine with an aqueous film forming foam (AFF) apparatus with a deck gun to apply a heavy stream. In addition, the funding will be utilized to provide for a third volunteer stipend to staff the engine with firefighters and training for electrical firefighting for 10 personnel (2 per year on a 5-year rotation). The fire mitigation fee will be paid annually during the life of the project and terminated upon decommissioning of the substation and related facilities.
Location	At ECO Substation Project site, access roadway/work areas.
Monitoring/Reporting Action	CPUC, SDRFPD, and SDCFA verify position(s) are filled.
Effectiveness Criteria	Hiring of position(s) complete.
Responsible Agency	SDRFPD/SDCFA/CPUC.
Timing	New position(s) in place at beginning of construction and through life of project.

Mitigation Measure	FF-4: Customized Fire Protection Plan for Project. A draft Fire Protection Plan (FPP) will be submitted to CAL FIRE, SDRFPD, and SDCFA at least 90 days before the start of any construction activities. Comment on the draft FPP shall be provided to SDG&E and SDG&E shall resolve each comment in consultation with each responsible agency. The final FPP shall be approved by the CPUC prior to the initiation of construction activities. The FPP will include, at minimum, the following: • San Diego County FPP Content Requirements (http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf) • Rural Fire Protection District Content Requirements o Provisions for fire safety and prevention o Water supply o Fire suppression/detection systems – built-in detection system with notification o Secondary containment o Site security and access o Emergency shut-down provisions • Integration into plans prepared to satisfy Mitigation Measures FF-1 and FF-2 The FPP will be incorporated into MM FF-1, the Construction Fire Prevention/Protection Plan, and MM FF-2, the Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)[1] Operational Maintenance Plan. The Customized Fire Protection Plan will incorporate clarifications and additional ECO Substation Project APMs described in Section B of this EIR/EIS.
Location	Applicable to ECO Substation site, access roads, and work areas.
Monitoring/Reporting Action	CPUC and BLM verify FPP is prepared and SDGE& has adequately addressed comments from CAL FIRE Rural Fire Protection District, and SDCFA.
Effectiveness Criteria	FPP is created. FPP requirements are implemented project wide.
Responsible Agency	Rural Fire Protection District/SDCFA/CAL FIRE
Timing	Findings incorporated into Plans created to satisfy Mitigation Measures FF-1 and FF-2. Comments provided to SDG&E a minimum of 60 days prior to scheduled start of construction. Final FPP completed a minimum of 30 days prior to the scheduled start of construction. Plan applicable for life of project.
Mitigation Measure	FF-6: Funding for FireSafe Council. Provide funding for Boulevard/Jacumba/La Posta FireSafe Council with a clarified focus of coordinating a Community Wildfire Protection Plan (CWPP) and Evacuation Plan. Funding for the Boulevard/Jacumba/La Posta FireSafe Council will enable this newly formed organization a means to proactively complete these plans, provisions for applying for grant funding, and ultimately, for implementing fuel reduction and evacuation plans. Funding will be a lump sum, one-time amount with SDG&E providing fair share of CWPP and Evacuation Plan preparation.
Location	Funds to be allocated for hazard reduction projects within the nearest jurisdiction/FireSafe Council boundary with assets to be protected.
Monitoring/Reporting Action	County/Boulevard/Jacumba/La Posta FireSafe Council verifies project contributions.
Effectiveness Criteria	Funds are deposited. Community Wildfire Protection Plan is prepared and/or hazard reduction projects are initiated and completed.
Responsible Agency	Boulevard/Jacumba/La Posta FireSafe Council monitors SDG&E's fund contribution.

[1] http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/Attach%204_07-B%20Wildland%20Fire%20Prevention%20and%20Safety%20Practice.pdf

Timing	Prior to construction, one-time, lump sum
Mitigation Measure	FF-7: Preparation of Disturbed Area Revegetation Plan. All areas disturbed during construction activities that will not be continuously included in the long-term maintenance access right-of-way (ROW) will be provided native plant restoration in order to prevent non-native, weedy plants from establishing. Disturbed areas that will be included in the long-term maintenance program will not be revegetated as any plants that establish in these areas will be removed on an ongoing (at least annual) basis. Mitigation Measure FF-7 corresponds with Mitigation Measure Bio-1d and is not a duplicative plan but will be implemented under the biological monitoring program. It directs that the temporary disturbance areas will be revegetated with native plants common to the area through direction detailed in a Habitat Restoration Plan. The Habitat Restoration Plan will be prepared to restore native habitat and to reduce the potential for non-native plant establishment. The restoration plan will incorporate a Noxious Weeds and Invasive Species Control Plan to assist in restoring the construction area to the prior vegetated state and lessen the possibility of establishment of non-native, flammable plant species. A copy of the Revegetation Plan will be provided to the CPUC and BLM.
Location	All disturbed areas of ECO Substation, access roadway and work areas.
Monitoring/Reporting Action	CPUC and BLM to verify that restoration plan has been submitted and is implemented.
Effectiveness Criteria	Restoration plan will designate monitoring frequency and duration and success criteria.
Responsible Agency	CPUC/BLM.
Timing	Plan submitted to CPUC and BLM for review 90 days prior to energizing the substation and related facilities. Restoration will be initiated at earliest opportunity upon completion of soil-disturbing activities.

(END OF ATTACHMENT)