SOUTHERN CALIFORNIA EDISON'S PRESIDENTIAL SUBSTATION PROJECT
CPUC A.08-12-023
SCH #: 2009021059

Amendment to the Final Environmental Impact Report

Prepared for:
California Public Utilities Commission

November 2013

ESA

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Prepared for:
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CHAPTER 1
Introduction

This document is an Amendment to the Final Environmental Impact Report (EIR) prepared on behalf of the California Public Utilities Commission (CPUC) for the Southern California Edison (SCE) Presidential Substation Project (Proposed Project). The Final EIR was published and circulated to public agencies and the public on March 28, 2013. The CPUC, which is the lead CEQA agency, has not yet certified the Final EIR nor made any decision regarding the approval of the Proposed Project or its alternatives.

In the Draft and Final EIR for the Proposed Project, the CPUC considered System Alternative A, which would increase the capacity of existing substations using standard transformer sizes. System Alternative A was eliminated from full EIR evaluation because it failed to satisfy the basic project objective of meeting long-term projected electrical load requirements in SCE's Electrical Needs Area (ENA), and would require construction of a new substation in the future (see Draft EIR page 3-36 and 3-37).

In June 2013, subsequent to publication of the Final EIR (March 2013), SCE (project applicant) prepared revised load forecasts for the ENA, for its 10-year planning period (2013 through 2022). The revised projections (SCE, 2013a) show that projected load growth has declined compared to prior projections used in preparation of the Draft and Final EIR. Because the revised load forecast was prepared and released prior to certification of the Final EIR, and the new information provided by the forecast creates a feasible alternative to the Proposed Project which would substantially lessen the significant environmental effects of the project (CEQA Section 21003), this new information requires consideration under CEQA. Upon consideration of the new information, it was determined that System Alternative A, is now feasible because it could meet long-term projected electrical load requirements in the ENA, and requires further analysis.

This Amendment to the Final EIR describes System Alternative A, analyzes its potential environmental effects, and revises conclusions regarding the environmentally superior alternative presented in the Final EIR. Based on the analysis of System Alternative A, presented in the following sections, this Amendment revises the Final EIR to identify System Alternative A as the environmentally superior alternative. Under this scenario a new substation and associated subtransmission lines would not be constructed. If the CPUC approves System Alternative A, project applicant (SCE) has agreed to implement this new environmentally superior alternative as a means of meeting most basic project objectives (SCE, 2013b).

1.1 Purpose of this Document

The California Environmental Quality Act (CEQA) and its implementing regulations (the "CEQA Guidelines") require a lead agency to prepare and certify a Final EIR before it may approve a project for which a Draft EIR has been prepared (CEQA §15090). The purpose of this document is to amend the March 2013 Presidential Substation Project Final EIR. As stated in the introduction, this Amendment is being prepared to consider new information related to ENA load forecasts, which became available in June 2013, following publication of the Final EIR.

The Final EIR and Amendment will be used by the CPUC in its consideration of the Applicant's request for a Permit to Construct (PTC) application for the Proposed Project. Where applicable, the information in this Amendment to the Final EIR supersedes the information in the March 2013 Final EIR. All other information in the Draft and Final EIR remains pertinent and valid.

SCE's revised demand projections, in conjunction with System Alternative A's ability to meet project objectives, does not trigger the need for recirculation of the EIR because the new information does not meet the definition of "significant new information" per CEQA Guidelines. According to CEQA Guidelines Section 15088.5(a), "[n]ew information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." Although System Alternative A does represent a new feasible project alternative, SCE has agreed to implement System Alternative A. As such, the CPUC will not recirculate the EIR, but will distribute this Amendment to the Final EIR to all parties that received copies of the Final EIR and make it available on the CPUC project website.

1.2 Summary of EIR Process and Events

On September 16, 2011 the CPUC released the Draft EIR on the Proposed Project for public review and comment. The Draft EIR was available for public review at public libraries located in the vicinity of the Project site, and online on the CPUC's website. The public review and comment period duration for the Draft EIR began September 16, 2011, and ended October 31, 2011. The CPUC granted an extension of the review deadline, which ended on November 15, 2011. Therefore, the total duration of the Draft EIR public review period was 61 calendar days.

The CPUC held a public hearing on October 13, 2011, to accept comments on the Draft EIR from agencies, organizations, and individuals. Oral comments were received at the public hearing and written comments were due by November 15, 2011. Some comments were received after the end of the comment period and were accepted.

The Final EIR was published on March 28, 2013 and circulated to public agencies and organizations and individuals that commented on the Draft EIR. The Final EIR has not been certified by the CPUC.

In response to comments received on the Final EIR, in May 2013 the CPUC submitted Data Request 11 to SCE which requested that SCE provide the 2013-2022 Peak Demand Forecast for the ENA, as well as additional specifications regarding implementation of System Alternative A. On June 26, 2013, SCE provided responses to Data Request 11 which provided the revised load forecasts discussed earlier in this Chapter, and indicated that System Alternative A may represent a feasible alternative to the Proposed Project (SCE, 2013a). Data Response 12, submitted by SCE on August 19, 2013, clarifies project components required under System Alternative A and further supports the feasibility of System Alternative A to meet SCE's projected electrical needs (SCE, 2013b). As a result, the CPUC has elected to proceed with preparation of this Amendment to the Final EIR that fully analyzes System Alternative A. As described above, the Draft EIR, Final EIR, and this Amendment will be used by the CPUC in its consideration of the Applicant's PTC application for the Proposed Project or alternative. The CPUC will decide whether to certify the EIR and approve System Alternative A (the environmentally superior alternative).

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CHAPTER 2
Description of System Alternative A

2.1 Project Components

System Alternative A would add 16.8 megavolt amperes (MVA) of additional capacity at two of the existing ENA substations, upgrading Potrero Substation and Royal Substation by replacing the existing transformers and 16 kV station capacitor banks with higher capacity equipment, and adding additional 16 kV distribution circuits (SCE, 2013c). The alternative would result in ENA substations having a combined substation capacity of 432.2 MVA, an increase of 16.8 MVA above existing capacity. All construction is expected to be completed in 2019 but would likely start in 2016 (SCE, 2013b).

Figure 2-2 in the Draft EIR (provided as Appendix A in this document) shows the ENA and the general locations of its three substations, which include Royal, Potrero, and Thousand Oaks substations. Potrero Substation is located in the City of Thousand Oaks on Townsgate Avenue, approximately 0.25 miles east of Hampshire Road and Royal Substation is located in the City of Simi Valley on the southwest corner of First Street and Cochran Street. The Thousand Oaks Substation is not capable of supporting an upgrade, and no work would be done at that site under System Alternative A.

2.1.1 Potrero Substation Upgrades

SCE would make the following upgrades at Potrero Substation. With the exception of the new 16 kV circuit, upgrades would occur within the existing substation footprint:

- Replace one oil-filled 66 kV circuit breaker with one sulfur hexafluoride (SF_6) circuit breaker;
- Replace four low voltage bushings on one of the existing 28 MVA transformers;
- Upgrade the 16 kV bank and bus tie circuit breaker, disconnect switches, bank leads, and modify or replace foundations as necessary;
- Equip a vacant 16 kV line position with a new circuit breaker, disconnect switches, and leads;
- Upgrade two 16 kV, 3.0 MVAR capacitor banks to two 4.8 MVAR capacitor banks;
- Add protective relays and controls for the new 16 kV line position;
- Construct a new 16 kV duct bank consisting of 5-inch conduits to the street; and

- Construct one new 16 kV underground distribution circuit that would extend approximately 2 miles in a northwesterly direction (see additional details in the next section).

There would be no modifications to walls or fencing at the existing Potrero Substation and there are no planned modifications to access, parking, and drainage. There would also be no grading or perimeter lighting modifications at this substation; however, there would be modifications to the existing yard lighting within the substations to accommodate the newly installed equipment noted above. Some below grade construction for substation equipment would occur to provide for conduit installation, ground grid extension, and foundation work.

2.1.2 Royal Substation Upgrades

SCE would make the following upgrades at Royal Substation. With the exception of the new 16 kV circuit, upgrades would occur within the existing substation footprint:

- Replace one oil filled 66 kV circuit breaker with one SF6 circuit breaker;
- Replace one 22.4 MVA transformer (12.5 feet high by 16 feet long by 10 feet wide) and foundation with a new 28 MVA transformer (15.4 feet high by 16 feet long and 11 feet wide) and foundation;
- Replace and relocate three 16 kV capacitor banks (4.8 and 6.0 MVAR) and foundations with four new 4.8 MVAR 16 kV capacitor banks and foundations, and extend the ground grid as necessary. A 4.8 MVAR 16 kV capacitor bank measures 18 feet high by 27 feet long and 13 feet wide, and a 6.0 MVAR 16 kV capacitor bank measures 21 feet high by 25 feet long and 6 feet wide;
- Install an internal fence around each of the capacitors that measures 13 feet wide by 17 feet long by 6 feet tall;
- Extend the 16 kV operating and transfer buses and switchrack, and replace the bank breaker, disconnect switches, leads, and modify or replace foundations as necessary;
- Upgrade the station light and power service due to added fan load;
- Equip the new 16 kV line position with a new foundation, circuit breaker, disconnect switches, and leads;
- Add protective relays and controls for the new 16 kV line position and capacitor bank; and
- Install one new 16 kV underground distribution circuit approximately 2 miles long in a northeasterly direction (see additional details in the next section).

There would be no modifications to substation perimeter walls or fencing at the existing Royal Substation and there are no planned modifications to access, parking, and drainage. There would also be no grading or perimeter lighting modifications; however, there would be modifications to the existing yard lighting within the substation to accommodate the newly installed equipment noted above. Some below grade construction for substation equipment would occur to provide for conduit installation, ground grid extension, and foundation work. To extend the 16 kV switchrack at Royal Substation by one position, SCE would need to excavate for two pile foundations, which are typically 18 inches in diameter and 8 feet deep, and two circuit breaker foundations. The dimensions for the 66 kV circuit breaker pad are approximately 8 feet by 7 feet, and the 16 kV circuit breaker

pad is approximately 6.5 feet by 4 feet. The new position switchrack steel would then be erected on the new foundations with a bridge tied into the existing rack steel structure. The operating and transfer buses would be extended by cutting and splicing the existing 3-inch aluminum buses and extending one position through the use of post insulators. One new circuit breaker and 9 disconnect switches would be installed for the operating, line, and transfer bus. The position components would then be conductored with 1272 Stranded Aluminum Conductor (SAC). The high side bank position is 66 kV, and would be re-equipped with a new higher rated circuit breaker and disconnect switches; if necessary, the foundations would be modified or replaced. New conductor would be installed in the position to connect the 66 kV circuit breaker and disconnect switches to the 66 kV operating and transfer buses.

2.1.3 Underground Distribution Circuits

Two new underground 16 kV distribution circuits would be constructed as part of System Alternative A. One circuit would be constructed out of the Potrero Substation and one circuit out of the Royal Substation, and would eventually connect to existing distribution circuitry either at an underground structure such as a vault, pad mounted switch structure, manhole, etc., or at a pole via a riser. Although the exact routes of the distribution circuits and related underground structures (e.g. vaults, manholes, pull boxes, etc.) are not known at the publication of this Amendment to the Final EIR, the following information is known about general direction, length, and construction components of the underground distribution circuits:

Potrero Substation 16 kV Circuit

The new distribution circuit would likely be constructed in a northwesterly direction from Potrero Substation and total approximately 2 miles:

- Approximately 1 mile of new underground 16 kV distribution cable would be installed in existing conduit and structures. However, some structures may need to be replaced with larger structures along the route.
- Approximately 1 mile of new underground 16 kV distribution cable would be installed in a new duct bank and new structures.

Royal Substation 16 kV Circuit

The new distribution circuit would likely be constructed in a northeasterly direction from Royal Substation for approximately 2 miles:

- Approximately 1 mile of new underground 16 kV distribution cable would be installed in existing conduit and structures. However, some structures would likely need to be replaced with larger structures along the route.
- Approximately 1 mile of new underground 16 kV distribution cable would be installed in a new duct bank and new structures.

Both distribution circuits would be constructed in existing paved roadways within existing SCE easements, fee owned property, and franchise areas within the City of Thousand Oaks and the City of Simi Valley. The exact location and routing of the 16 kV distribution circuits cannot be designed at this time due to the uncertainty of where load relief would be needed and where future load growth would precisely occur. Additionally, detailed design of the circuit routes

would require detailed plans from other utilities regarding their existing and planned infrastructure in the area at the time of SCE's design of the circuits. The locations of these facilities could potentially impact the ultimate electrical distribution design routes. The detailed design of the new 16 kV distribution circuits would be completed approximately 12 months prior to the operating date.

2.2 Construction

2.2.1 Staging Yard and Laydown Area Locations

Table 2.1 below identifies the staging yard and construction laydown area locations SCE anticipates using during construction activities at the Potrero and Royal substations. SCE would likely use the Thousand Oaks Service Center as the staging yard and laydown area for construction of the distribution circuits.

TABLE 2.1
STAGING YARDS AND CONSTRUCTION LAYDOWN AREA LOCATIONS

Yard Name	Location	Pre-Project Condition	Approximate Area	Project Component
Royal Substation	Southwest corner of First Street & Cochran Street, City of Simi Valley	Disturbed	0.5 acre	Laydown Yard
Potrero Substation	Townsgate Avenue, east of Hampshire Road, City of Thousand Oaks	Disturbed	0.5 acre	Laydown Yard
Thousand Oaks Service Center	Northeast corner of Hampshire Road & Foothill Drive, City of Thousand Oaks	Disturbed	0.5 acre	Staging Yard and Laydown Yard

SOURCE: SCE, 2013c

2.2.2 Construction Equipment and Workforce

Construction of System Alternative A is anticipated to take approximately 36 months, commencing in June 2016 and completed by June 2019. Construction would occur in phases, based on the following schedule:

1. Construction associated with Royal Substation and the distribution circuit from Royal Substation would not overlap with construction associated with Potrero Substation and the distribution circuit from Potrero Substation;

2. Construction associated with a substation and the civil distribution circuit work from that same substation would not happen concurrently;

3. Civil distribution circuit work would generally not overlap with electrical distribution circuit work, although there may be some minor overlap of electrical work coinciding with the end of civil construction for each circuit.

Table 2.2 presents equipment and workforce estimates for substation-related construction of System Alternative A.

TABLE 2.2
SYSTEM ALTERNATIVE A SUBSTATION CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY

Work Activity				Activity Production		
Primary Equipment Description	**Estimated Horse-Power**	**Probable Fuel Type**	**Primary Equipment Quantity**	**Estimated Workforce**	**Estimated Schedule (Days)**	**Duration of Use (Hours/Day)**
Electrical Work, Royal Substation				**27**	**30**	
40 ft. Manlift	75	Diesel	2	2	10	6
Forklift	75	Diesel	1	1	10	6
Boom Truck	100	Diesel	1	2	10	6
Backhoe	80	Diesel	1	1	10	6
Excavator with Auger Attachment	210	Diesel	1	1	1	4
Flatbed, 5 Ton	180	Gas/Diesel	1	1	10	2
Office Trailer	0	Electric	1	5	10	8
Wiring Trailer	0	Electric	1	5	10	8
Pickups	180	Gas/Diesel	2	1	10	2
Pickup w/ Fuel Tank	180	Gas/Diesel	1	1	10	2
Weld Truck	180	Gas/Diesel	1	1	5	2
Tool Trailer	0	Electric	1	6	10	8
Wiring Work, Royal Substation				**6**	**15**	
Pickup Truck	180	Gas	2	1	55	2
Carry-All	180	Gas	1	2	55	2
Test/Maintenance Work, Royal Substation				**5**	**35**	
Pickup	180	Gas/Diesel	2	1	35	2
Gas/Processing Trailer	0	Electric	1	2	4	4
40 ft. Manlift	75	Diesel	2	2	5	8
Electrical Work, Potrero Substation				**26**	**15**	
40 ft. Manlift	75	Diesel	2	2	10	6
Forklift	75	Diesel	1	1	10	6
Boom Truck	100	Diesel	1	2	10	6
Backhoe	80	Diesel	1	1	10	6
Flatbed, 5 Ton	180	Gas/Diesel	1	1	10	2
Office Trailer	0	Electric	1	5	10	8
Wiring Trailer	0	Electric	1	5	10	8
Pickups	180	Gas/Diesel	2	1	10	2
Pickup w/ Fuel Tank	180	Gas/Diesel	1	1	10	2
Weld Truck	180	Gas/Diesel	1	1	5	2
Tool Trailer	0	Electric	1	6	10	8
Wiring Work, Potrero Substation				**4**	**15**	
Pickup Truck	180	Gas	2	2	30	10

TABLE 2.2 (Continued)
SYSTEM ALTERNATIVE A SUBSTATION CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY

Work Activity				Activity Production		
Primary Equipment Description	**Estimated Horse-Power**	**Probable Fuel Type**	**Primary Equipment Quantity**	**Estimated Workforce**	**Estimated Schedule (Days)**	**Duration of Use (Hours/Day)**
Test/Maintenance Work, Potrero Substation				**5**	**35**	
Pickups	180	Gas/Diesel	2	1	35	2
Gas/Processing Trailer	0	Electric	1	2	4	4
40 ft. Manlift	75	Diesel	2	2	5	8

SOURCE: SCE, 2013c

2.2.3 Underground Distribution Circuit Installation

As described in Section 2.1.3, although the exact location and routing of the new underground distribution system out of Potrero and Royal substations is unknown, access would be via existing paved streets. Excavation would occur in the existing paved streets and would be approximately 2 feet wide and 1 mile long for the new duct bank and larger areas for each new structure. The work area for the trenching would be approximately 30 feet wide and 1 mile long. Additional structures may need to be replaced along a second 1 mile long section. The excavated soil would temporarily be placed next to the trench on previously disturbed area. Construction activities would typically include the use of two backhoes, a roller, a grinder, dump trucks, a flatbed truck, concrete trucks, and asphalt trucks. Soil excavated would be used (or slurry) to refill the trench and area surrounding the vaults, and excess soil would be trucked to an approved disposal facility. New asphalt would be placed over the top of the trench to match the existing asphalt in the street in accordance with local permit requirements. Once the underground infrastructure is in place, the crews would install cable in one of the new conduits. **Table 2.3** presents equipment and workforce estimates for underground distribution circuit construction that would be associated with System Alternative A, separated into civil work (e.g., ground-disturbing activities, such as trenching for conduit installation) and electrical work (e.g., installation of conductor and related components.)

TABLE 2.3
SYSTEM ALTERNATIVE A UNDERGROUND DISTRIBUTION CIRCUIT CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY

Work Activity[a]				Activity Production		
Primary Equipment Description	**Estimated Horse-Power**	**Probable Fuel Type**	**Primary Equipment Quantity**	**Estimated Workforce**	**Estimated Schedule (Days)**	**Duration of Use (Hours/Day)**
Underground Distribution from Royal Substation - Civil Work				**13**	**53[b]**	
Backhoe	125	Diesel	2	2	53	8
Roller	100	Diesel	1	1	53	8
Grinder	175	Diesel	1	1	53	8
Dump Truck	250	Diesel	4	4	53	8
Flatbed Truck	150	Diesel	1	1	53	8
Concrete/Asphalt Truck	250	Diesel	4	4	53	8
Underground Distribution from Royal Substation – Electrical Work				**14**	**70[c]**	
Rodder Truck	35	Diesel	2	6	70	8
Cable Dolly	9	Diesel	1	4	70	8
Double Bucket Truck	250	Diesel	1	4	70	8
Underground Distribution from Potrero Substation - Civil Work				**13**	**53[b]**	
Backhoe	125	Diesel	2	2	53	8
Roller	100	Diesel	1	1	53	8
Grinder	175	Diesel	1	1	53	8
Dump Truck	250	Diesel	4	4	53	8
Flatbed Truck	150	Diesel	1	1	53	8
Concrete/Asphalt Truck	250	Diesel	4	4	53	8
Underground Distribution from Potrero Substation – Electrical Work				**14**	**70[c]**	
Rodder Truck	35	Diesel	2	6	70	8
Cable Dolly	9	Diesel	1	4	70	8
Double Bucket Truck	250	Diesel	1	4	70	8

NOTES:
[a] Equipment estimates are based on SCE emission estimates submitted with Draft EIR comments.
[b] Assumes construction of 1 mile of duct bank and other structures (e.g., vaults) would progress at a rate of approximately 100 feet per day.
[c] Assumes 2 miles of cable installation would progress at a rate of approximately 150 feet per day.

2.3 Rationale for Full Analysis

2.3.1 Project Objectives

The June 2013 revised ENA load forecasts show decreased growth compared to the load forecasts used in the Draft and Final EIR (SCE, 2013a). As a result, System Alternative A would meet most basic project objectives within the 10 year planning period defined by SCE (2013-2022):

- It would meet the basic project objective of meeting long-term (i.e., through 2022) projected electrical load requirements in the ENA as defined in the proponent's application, PEA, and SCE's most recent demand forecasts and load projections (SCE, 2013a).

- It would improve electrical system operational flexibility and reliability by providing the ability to transfer load between 16 kV distribution circuits and 16 kV distribution substations within the ENA. (It should be noted that as the substations start nearing capacity, the operational flexibility will begin to decrease.)

Replacement of the existing transformers at the substations would temporarily reduce the reliability of the system as existing transformers are taken off line for replacement. If the transformer change out is accomplished during the non-summer period, reliability issues could be minimized or eliminated.

2.3.2 Feasibility

This alternative would meet all regulatory and technical feasibility criteria. No additional land or right-of-way (ROW) acquisitions would be required under this alternative. All construction, including the underground distribution circuits, would be done within existing SCE easements, fee owned property and franchise areas.

2.3.3 Lessen Significant Environmental Impacts

System Alternative A would not require the construction of a new substation and associated subtransmission lines. Construction, operation, and maintenance impacts on aesthetics would be less than significant. Construction impacts on noise would be less than significant with mitigation. Construction impacts on air quality would be significant and unavoidable; however, they would be substantially less than air quality impacts associated with the Proposed Project or any of the other alternatives as identified in the Draft EIR, because the amount construction would be less. For complete analyses of all resource areas, see Chapter 3.

2.3.4 Potential New Impacts Created

Larger transformers and capacitor banks would increase the visual profile of the substations. However, because these are already industrial sites, the impact of a slightly increased profile would be less than significant. Similar to the analysis of Alternative Subtransmission Alignment 1 in the Draft EIR, construction related to the underground 16 kV distribution lines proposed in System Alternative A could impact buried cultural resources, if present. The exact routes of the distribution lines have not been identified. Consequently, the distribution line routes have not been subject to cultural resources investigation. However, implementation of Mitigation Measure 4.5-5 would reduce potential impacts to cultural resources to less than significant.

CHAPTER 3
CEQA Analysis of System Alternative A

3.1 Introduction

This chapter provides discussion and full public disclosure of the significant environmental impacts of System Alternative A as they relate to the following 16 areas of environmental analysis:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Geology, Soils, Seismicity and Mineral Resources
4.7 Greenhouse Gas Emissions
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Noise
4.12 Population and Housing
4.13 Public Services
4.14 Recreation
4.15 Transportation and Traffic
4.16 Utilities and Service Systems

The addition of this new alternative does not require revisions to the Environmental Setting, Regulatory Setting (i.e., applicable regulations, plans, and standards), Significance Criteria, or Applicant Proposed Measures for each of these resource areas. Analysis within each issue area includes consideration of all components of System Alternative A as described in Chapter 2.

3.2 Environmental Analyses

3.2.1 Aesthetics

Under System Alternative A, no new substation and subtransmission lines would be constructed. All changes would take place within the existing substation footprints with the exception of the two 16 kV distribution circuits, each approximately 2 miles long, that would be constructed within existing paved roadways. Construction impacts would consequently be less than the Proposed Project and less than significant. Operation of this alternative would not affect scenic vistas, scenic resources, or the existing visual character of the surrounding area, and would not create any additional source of light or glare. As such there would be no impact.

3.2.2 Agriculture and Forestry Resources

Under System Alternative A, no new substation and subtransmission lines would be constructed. All changes would take place within existing substation footprints with the exception of the distribution circuits, which would be within existing paved roadways. Construction and operation of System Alternative A would cause no impact to agriculture and forestry. Implementation of this alternative would not convert *Prime Farmland, Unique Farmland*, or *Farmland of Statewide Importance*, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Implementation of System Alternative A also would not conflict with existing zoning for agricultural use, or a Williamson Act contract, or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use. Finally, this alternative would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

3.2.3 Air Quality

Under System Alternative A, short-term construction activities would result in substantially less criteria pollutant emissions compared to the construction emissions that would result for the Proposed Project. Construction activities under this alternative would primarily be associated with replacing the existing transformers at Royal and Potrero substations with new transformers, upgrading capacitor banks, and constructing the two new distribution circuits (approximately 2 miles each).

Maximum daily construction emissions estimates for System Alternative A are presented in **Table 3.1**. Activities associated with the civil underground distribution work from Royal Substation represent the maximum peak day scenario. For detailed assumptions and emission factors associated with the emissions estimates, refer to Appendix B.

As indicated in Table 3.1, peak day NO_x emissions under this alternative are estimated to be approximately 35 pounds/day, which would exceed the Ventura County Air Pollution Control District (VCAPCD) significance threshold of 25 pounds/day. Implementation of Mitigation Measure 4.3-1 would reduce NO_x emissions by 20 percent, to approximately 28 pounds/day; however, NO_x emissions would continue to exceed VCPACD's threshold. Therefore, like the Proposed Project, construction impacts under System Alternative A would be significant and unavoidable associated with short-term generation of NO_x on an individual and cumulative basis. However, NO_x emissions associated with System Alternative A would be substantially lower than those associated with the Proposed Project, as the Proposed Project would result in maximum daily NO_x emissions of approximately 158 pounds/day (after implementation of Mitigation Measure 4.3-1).

TABLE 3.1
SYSTEM ALTERNATIVE A MAXIMUM DAY CONSTRUCTION EXHAUST EMISSIONS

Construction Emission Source	Maximum Day Emissions (pounds/day)			
	ROG	NO_X	PM10	PM2.5
Underground Distribution Civil Work from Royal Substation - On-site Construction Equipment	1.91	20.03	1.11	1.03
Underground Distribution Civil Work from Royal Substation - Off-site Construction Vehicles	0.50	14.88	0.25	0.23
Total	**2.41**	**34.91**	**1.36**	**1.26**
VCAPCD Thresholds	25	25	---	---

SOURCE: Emissions were estimated using emission factors from the Off-road emissions inventory database and EMFAC 2011. Refer to Appendix B for details on the emissions estimates.

With regard to fugitive dust, Mitigation Measures 4.3-2 and 4.3-4, which define the VCAPCD dust control measures, shall be implemented to insure that System Alternative A would not result in a significant impact related to the generation of fugitive dust. Short-term and cumulative impacts associated with fugitive dust would be mitigated to less than significant, and would be less than the Proposed Project.

3.2.4 Biological Resources

There would be no significant impacts to biological resources associated with this alternative. All changes would take place within existing substation footprints, with the exception of the distribution circuits, which would be within existing SCE easements, fee owned property and franchise areas. Construction activities could impact common or protected nesting migratory birds. With implementation of Mitigation Measure 4.4-3, which requires actions to avoid impacts on nesting raptors and other protected birds, impacts would be less than significant.

3.2.5 Cultural Resources

Under System Alternative A, most changes would take place within existing substation footprints. All of the new Potrero and Royal Substation elements would occur within disturbed or developed areas and ground disturbance will be limited to previously disturbed areas in which historical resources, archaeological resources, paleontological, and human remains are unlikely to be identified.

However, construction related to the underground 16 kV distribution circuits proposed in System Alternative A could impact buried cultural resources. The exact routes of the distribution lines have not been identified; consequently, the distribution line routes have not been subject to cultural resources investigation. Therefore, once the distribution line routes have been identified, they should be subject to a Phase I cultural resources investigation (Mitigation Measure 4.5-5).

As with the Proposed Project, implementation of Mitigation Measures 4.5-1 through 4.5-4 would provide for archaeological and Native American monitoring and for measures in the event of

inadvertent discovery of archaeological or paleontological resources or human remains. Implementation of these measures, along with Mitigation Measure 4.5-5, would reduce the impact to currently unknown archaeological resources to less than significant. Mitigation Measure 4.5-5 has been modified as follows to include System Alternative A components:

> **Mitigation Measure 4.5-5:** The portion of any alternative subtransmission or distribution alignment ~~Alternative Subtransmission Alignment 1~~ that has not been subject to archaeological survey shall be surveyed prior to any ground-disturbing activities. If significant cultural resources are identified, the procedures described in Mitigation Measure 4.5-2b shall be implemented.

Implementation of this mitigation measure would not cause new or significant impacts because it would result in the avoidance or treatment of sensitive resources. Operation and maintenance of the System Alternative A would have no impact on cultural resources.

3.2.6 Geology, Soils, Seismicity, and Mineral Resources

System Alternative A has a similar geologic and seismic setting as the Proposed Project. System Alternative A does not include construction or operation of new substation and subtransmission lines and, as such, no grading or modifications to access, parking, and drainage are proposed under this alternative. No slope stability analysis or additional slope grading would be required and it is possible that geotechnical data developed when the original site was developed could be adequate for design of improvements under the System Alternative A. Some geotechnical work may be required to determine whether the existing foundation soils and pads can adequately support the increased weight of new equipment. Additionally, some geotechnical work may be also be required for construction of the two new distribution circuits as well as temporary earthwork related to construction period trenching, installation of components, and backfilling. All impacts relating to geologic and seismic hazards would be reduced as compared to the Proposed Project. No significant impacts are anticipated in regard to this alternative.

3.2.7 Greenhouse Gas Emissions

Operational GHG emissions associated with System Alternative A would include vehicular exhaust related to periodic maintenance and inspection activities and SF_6 leakage from circuit breakers at Royal and Potrero substations that would be approximately the same as that identified for the Proposed Project. Therefore, the total operational emissions that would be generated by System Alternative A would be approximately 18 metric tons CO_2e per year.

As shown in Table 3.2, under System Alternative A total GHG construction emissions would be approximately 366 metric tons CO_2e per year. These emissions amortized over a 30-year period equal approximately 12 metric tons CO_2e per year. Adding 12 metric tons of CO_2e to the operational emissions of 18 metric tons CO_2e per year results in total annual GHG emissions of approximately 30 metric tons CO_2e per year. This would be substantially less than the significance threshold of 10,000 metric tons CO_2e per year for stationary sources[1], and less than

[1] The Ventura County Air Pollution Control District (VCAPCD) currently does not have adopted GHG thresholds of significance for CEQA review projects. Therefore, as the lead agency, the CPUC has elected to use an approach to

the Proposed Project's annual emissions of 67 metric tons CO_2e. Like the Proposed Project, impacts pertaining to contribution to global climate change would be less than significant.

With regard to consistency with the California Air Resources Board (CARB) Climate Change Scoping Plan, System Alternative A would include installation of new circuit breakers that would contain SF_6 at Royal and Potrero substations. Pursuant to Mitigation Measure 4.7-2, SCE would be required to install a circuit breaker with low SF_6 leak rates and monitor the SF_6-containing circuit breaker consistent with the intent of Scoping Plan Measure H-6.

Mitigation Measure 4.7-2 has been modified as follows to include System Alternative A:

> **Mitigation Measure 4.7-2:** SCE shall ensure that the circuit breakers installed at the proposed Presidential Substation (Proposed Project), or Royal and Potrero substations (System Alternative A), have a guaranteed SF_6 annual leak rate of no more than 0.5 percent by volume. SCE shall provide CPUC with documentation of compliance, such as specification sheets, prior to installation of the circuit breakers. In addition, SCE shall annually monitor the SF_6-containing circuit breakers at the ~~proposed Presidential Substation~~ applicable substations for the detection and repair of leaks.

TABLE 3.2
SYSTEM ALTERNATIVE A GREENHOUSE GAS EMISSIONS FROM CONSTRUCTION

	CO_2e
Construction Emission Source	**metric tons**
Royal Substation	
Site Prep. and Electrical - on-site	4.84
Site Prep. and Electrical - off-site	21.08
Wiring Work - on-site	0.00
Wiring Work - off-site	0.17
Testing/Maintenance Work - on-site	1.09
Testing/Maintenance Work - off-site	4.44
Underground Distribution Civil - on-site	45.45
Underground Distribution Civil - off-site	65.94
Underground Distribution Electrical - on-site	15.82
Underground Distribution Electrical - off-site	29.63
Subtotal	**188.46**

the determination of significance of GHG emissions based on the GHG significance thresholds adopted by the South Coast Air Quality Management District (SCAQMD). The SCAQMD has adopted an interim operational significance threshold of 10,000 metric tons CO2e per year for stationary sources. Given System Alternative A's close proximity to the SCAQMD, the CPUC believes that the SCAQMD's significance threshold is the most applicable air district-adopted GHG significance threshold for System Alternative A.

As noted above, the SCAQMD's adopted GHG significance threshold is intended for long-term operational GHG emissions. However, the SCAQMD has developed guidance for the determination of significance of GHG construction emissions that recommends that total emissions from construction be amortized over 30 years and added to operational emissions and then compared to the applicable significance threshold (SCAQMD, 2008). This analysis of System Alternative A applies SCAQMD's guidance with regard to the assessment of construction-related GHG emissions.

TABLE 3.2 (CONTINUED)
SYSTEM ALTERNATIVE A GREENHOUSE GAS EMISSIONS FROM CONSTRUCTION

Construction Emission Source	CO_2e metric tons
Potrero Substation	
Site Prep. and Electrical - on-site	4.67
Site Prep. and Electrical - off-site	10.41
Wiring Work - on-site	0.00
Wiring Work - off-site	0.17
Testing/Maintenance Work - on-site	1.09
Testing/Maintenance Work - off-site	4.44
Underground Distribution Civil - on-site	45.45
Underground Distribution Civil - off-site	65.94
Underground Distribution Electrical - on-site	15.82
Underground Distribution Electrical - off-site	29.63
Subtotal	**177.62**
Total	**366.08**

SOURCE: Emissions were estimated using emission factors from the Off-road emissions inventory database, EMFAC 2011, and The Climate Registry (2013). Refer to Appendix B for details on the emissions estimates.

3.2.8 Hazards and Hazardous Materials

System Alternative A would not require the construction of a new substation and associated subtransmission lines. All proposed construction would take place within existing substation footprints with the exception of the two new 16 kV distribution circuits (approximately 2 miles each) which would occur within existing paved roadways. Construction, operation, and maintenance of System Alternative A would result in similar but reduced impacts compared to the Proposed Project. The potential exists for System Alternative A to result in accidental spills of hazardous materials that affect surface water and/or groundwater quality, the accidental release of previously unidentified hazardous materials into the environment, the release of hazardous materials along the distribution routes within the vicinity of a day care facility, and/or the distribution line construction activities to interfere with an emergency response or evacuation plan. Mitigation Measures 4.8-1a through 4.8-1e require that SCE and/or its contractors implement BMPs, prepare and implement a Hazardous Substance Control and Emergency Response Plan, prepare and implement a Health and Safety Plan, ensure that oil-absorbent material and equipment be used to contain and control any minor releases, and prepare and submit a Hazardous Materials Business Plan. Mitigation Measure 4.8-2 requires specific provisions under SCE's Hazardous Substance Control and Emergency Response Plan. Mitigation Measure 4.8-3 requires implementation of Mitigation Measures 4.8-1a through 4.8-1e, and 4.8-2. Mitigation Measure 4.8-5 requires implementation of Mitigation Measure 4.15-1b which requires SCE to prepare and implement a Traffic Management Plan. Mitigation Measure 4.8-6 requires SCE and/or its contractors to have water tanks and/or water trucks sited/available at active project

sites for fire protection. Implementation of these mitigation measures would reduce impacts related to hazards and hazardous materials to a less-than-significant level.

3.2.9 Hydrology and Water Quality

System Alternative A has a similar hydrology and water quality setting as the Proposed Project, yet System Alternative A would be much smaller in scope as compared to the Proposed Project. Potential construction and operational impacts related to storm water runoff and water quality for System Alternative A would be controlled by existing regulatory requirements, including the Construction General Permit and relevant General Waste Discharge Requirements. Therefore, there would be no impacts related to hydrology and water quality.

3.2.10 Land Use and Planning

Implementation of System Alternative A would not require a new substation or subtransmission lines to be constructed; all changes would take place within existing substation footprints or within existing road and utility easements. Implementation of this alternative would not physically divide an established community; conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Proposed Project; or conflict with an applicable Habitat Conservation Plans or Natural Community Conservation Plans. Therefore, System Alternative A would have no impact.

3.2.11 Noise

Under System Alternative A, short-term construction activities at Royal Substation in the City of Simi Valley and Potrero Substation in the City of Thousand Oaks would result in similar overall noise levels compared to the civil construction activities that would result for the proposed Presidential Substation. However, the construction period for each of the substations would be substantially shorter than the construction period that would be associated with the proposed Presidential Substation. There are no noise-sensitive receptors in the immediate vicinity of Potrero Substation in the City of Thousand Oaks, so impacts would be less than significant. There are residences approximately 320 feet from Royal Substation in the City of Simi Valley, who may be disturbed by construction noise at the substation. However, with implementation of Mitigation Measure 4.11-4 (SCE and/or its contractors shall develop a Construction Noise Reduction Plan with specific requirements), construction-related noise impacts at Royal substation would be less than significant.

With regard to the two underground distribution lines, SCE has yet to determine the exact routes for those lines; therefore, it is possible that construction of the underground distribution lines could adversely impact noise-sensitive receptors along the construction ROW in the City of Simi Valley, and/or the City of Thousand Oaks, depending on the selected routes. Although the impact would likely be limited to less than a week at any one location due to the assumed construction progress rate of approximately 100 feet per day, implementation of Mitigation Measures 4.11-1a and 4.11-1b (SCE and/or its contractors shall develop a Construction Noise Reduction Plan with

specific requirements) would reduce potential underground distribution-related construction noise impacts to a less-than-significant level in the event that construction would occur in the immediate vicinity of noise-sensitive uses. Proposed distribution circuits are not anticipated to be routed in unincorporated Ventura County. As such, construction activities would not exceed the Ventura County construction noise threshold criteria.

3.2.12 Population and Housing

Operation and maintenance activities associated with System Alternative A would be similar to the Proposed Project. This alternative would not require the construction of a new substation and associated subtransmission lines. Construction activities associated with upgrading the Royal and Potrero substations would require fewer temporary construction personnel than the Proposed Project, and would consequently not induce substantial population growth directly or indirectly. Additionally, implementation of System Alternative A would not displace any residential housing units or people. Therefore, impacts related to population and housing would be less than the Proposed Project (i.e. less than significant) and would require no mitigation.

3.2.13 Public Services

System Alternative A would not require the construction of a new substation and associated subtransmission alignments, and would require a smaller crew than under the Proposed Project. As such, System Alternative A would not generate a substantial temporary or permanent service population increase that would result in the need for new or physically altered fire protection, police protection, school, park, or other public service facilities, and would have no impact.

3.2.14 Recreation

Implementation of System Alternative A would result in the construction of no new substation and subtransmission lines; all changes would take place on existing substation footprints and within existing road and utility easements. Implementation of this alternative would not increase the use of existing neighborhood and regional parks or other recreational facilities. Therefore, System Alternative A would have no impact relating to recreation resources.

3.2.15 Transportation and Traffic

Construction-related impacts associated with this alternative would be less than the Proposed Project. System Alternative A would require upgrades at the existing Royal and Potrero substations. These substation sites are already developed, and the proposed upgrades would not require construction-related truck trips associated with grading activities or the delivery of fill material. Construction activities under System Alternative A would primarily be associated with replacing the existing transformers at the Royal and Potrero substations with new transformers, upgrading circuit breakers and capacitor banks, and constructing two new distribution circuits. Construction would also be required for the two 16 kV underground distribution circuits. However, the number of construction trips needed for delivery of equipment, and export (excess excavated soil) and import (asphalt) of materials would be fewer than for the Proposed Project.

Additionally, the number of construction employee vehicle trips would be less than those for the Proposed Project. Similar to the Proposed Project, construction-related impacts would be short-term and temporary. Mitigation Measures 4.15-1b requires SCE to prepare and implement a Traffic Management Plan, and 4.15-1d states SCE shall coordinate with the appropriate local government departments, County agencies, and other agencies, as appropriate. Mitigation Measure 4.15-3 requires implementation of Mitigation Measures 4.15-1a (SCE shall obtain and comply with local road encroachment permits for public roads crossed by the project), and 4.15-1b. Mitigation Measure 4.15.4 would require implementation of Mitigation Measure 4.15-1b. Implementation of these measures would reduce impacts to a less than significant level. Mitigation Measures 4.15-1c and 4.15-5 would not be required because System Alternative A would not cause the temporary closure of bike lanes or bike routes.

Mitigation Measure 4.15-1a has been modified as follows to include System Alternative A:

> **Mitigation Measure 4.15-1a:** SCE shall obtain and comply with local road encroachment permits for public roads that are crossed by the proposed or alternative subtransmission and distribution alignments. SCE shall also notify the owner of any private road east of Hwy 23 that would be crossed by the proposed subtransmission alignment (Proposed Project), or the owner of any private road that would be crossed by alternative distribution alignments (System Alternative A) regarding short-term construction activities at road crossings. Copies of all encroachment permits for those specific construction activities that would involve the crossing of a public road, and evidence of private property owner notification for those construction activities that would involve the crossing of a private road ~~east of Hwy 23~~ shall be provided to the CPUC prior to the commencement of those specific construction activities.

Similar to the Proposed Project, operating System Alternative A would not cause a substantial increase in traffic in the study area because this alternative would not create trip-generating land uses (such as residences or retail centers), and this alternative would require a minimal number of trips for maintenance activities.

3.2.16 Utilities and Service Systems

System Alternative A would not result in the construction of a new substation or subtransmission lines; all changes would take place within existing substation footprints and road and utility easements. The demands placed on local water, wastewater, and storm drainage, would be less than the Proposed Project. Construction of System Alternative A would also generate similar or less impacts regarding solid waste disposal than those described for the Proposed Project. System Alternative A would not require the removal of 89 wood poles and 4 tubular steel poles, and consequently would generate less waste from construction activities. Overall, like the Proposed Project, there would be no need for construction or expansion of water, wastewater, or stormwater drainage facilities, and therefore no impact pertaining to these significance criteria. Impacts to wastewater treatment, water supplies, and solid waste facilities would be less than significant with no mitigation required.

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CHAPTER 4
Environmentally Superior Alternative

As documented in the Draft and Final EIR, the Proposed Project would result in significant unavoidable impacts in regard to aesthetics, air quality, and noise. The Final EIR published in March of 2013 identified the environmentally superior alternative as a combination of constructing a new substation at Alternative Substation Site B with construction of approximately 3.3 miles of 66kV subtransmission line following Alternative Subtransmission Alignment 3. This combination reduced the permanent significant unavoidable impacts on aesthetics to less than significant with mitigation. However, like the Proposed Project, Alternative Substation Site B with Alternative Subtransmission Alignment 3 would result in significant unavoidable temporary impacts related to air quality and noise.

Based on the analysis of System Alternative A in Chapter 3 of this document, and comparison with both the Proposed Project and the previously identified environmentally superior alternative (Alternative Substation Site B with Alternative Subtransmission Alignment 3), System Alternative A is now the environmentally superior alternative.

Under System Alternative A, permanent impacts to aesthetics would be less than significant, and construction-related impacts from noise would be less than significant with mitigation. Like the Proposed Project and Alternative Substation Site B with Alternative Subtransmission Alignment 3, under System Alternative A temporary impacts related to air quality would be significant and unavoidable. However, the selection of an environmentally superior alternative is based on differences in intensity and duration of significant impacts. Under System Alternative A, both the intensity and duration of impacts to air quality would be less than under the Proposed Project and Alternative Substation Site B with Alternative Subtransmission Alignment 3. As described in Chapter 3, NO_x emissions associated with System Alternative A (28 pounds/day after mitigation) would be substantially lower than those associated with the Proposed Project (158 pounds/day after mitigation).

System Alternative A, which does not involve the construction of a new substation, would meet the basic project objective of increasing operational flexibility and reliability, but not to the same extent of the Proposed Project or Alternative Substation Site B with Alternative Subtransmission Alignment 3. However, because it would not result in significant unavoidable impacts to aesthetics or noise, and would have the lowest intensity of any alternative with respect to significant impacts to air quality, System Alternative A is therefore selected as the environmentally superior alternative. A combination of Alternative Substation Site B with Alternative Subtransmission Alignment 3 would follow as the next environmentally preferred alternative. As stated above, this combination would result in significant unavoidable temporary impacts related to noise and air quality, but neither the substation nor the subtransmission alignment would result in permanent significant unavoidable impacts on aesthetics.

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CHAPTER 5
No Project Alternative Revisions and PTC Application Process

5.1 No Project Alternative

Draft EIR page 3-26 states: "Under the No Project Alternative, the Proposed Project would not be implemented. It is likely that SCE would need to implement System Alternative A as a temporary fix as demand increases. However, System Alternative A would fail to meet most of the basic project objectives and therefore was not carried forward for analysis."

Because System Alternative A is now feasible and the environmentally superior alternative, the description of the No Project Alternative is updated as follows:

> "Under the No Project Alternative, the Proposed Project would not be implemented. The Presidential Substation and subtransmission lines would not be created and the modifications to the three substations would not occur. None of the project objectives would be met and future demand in the ENA would not be adequately met. This condition would jeopardize SCE's ability to provide safe and reliable electric service to customers within the ENA."

The No Project Alternative environmental analyses for individual resource areas in the Draft and Final EIR would not change as a result of this text update.

5.2 PTC Application Process

Substation work associated with System Alternative A would not typically be subject to CPUC permitting requirements as the work is considered a "substation modification" under Section III.B of CPUC General Order (G.O.) 131-D. The substation work associated with System Alternative A would not result in an increase in the substation voltage rating, nor does the work require expansion of the substations onto non-utility owned property. In addition, the distribution work is typically not subject to CPUC permitting requirements per Section III.C of General Order 131-D. However, because SCE originally filed a PTC application with the CPUC for the Presidential Substation Project (A. 12-08-023), and the CPUC subsequently identified System Alternative A as the environmentally superior alternative to the Presidential Substation Project pursuant to CEQA, SCE has agreed to continue to pursue a PTC application, including the CPUC's current CEQA review, for the System Alternative A work.

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CHAPTER 6
References

California Air Resources Board (CARB), 2000. Public Meeting to Consider Approval of Revisions to the State's On-road Motor Vehicle Emissions Inventory, Technical Support Document, Section 4.13, Factors for Converting THC Emissions Rates TOG/ROG, May 2000.

California Climate Action Registry (CCAR), 2009. General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, Table C.3 and C.6, January 2009.

South Coast Air Quality Management District (SCAQMD), 2008. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. Available at: http://www.aqmd.gov/hb/2008/December/081231a.htm, last updated November 26, 2008.

Southern California Edison (SCE), 2013a. Data Request Set Presidential ED-11, June 7, 2013.

SCE, 2013b. Data Request Set Presidential ED-12, July 25, 2013.

SCE, 2013c. Data provided by Southern California Edison regarding System Alternative A, October 7, 2013.

The Climate Registry (TCR), 2013. Table 13.4 Default CH4 and N2O Emission Factors for Highway Vehicles by Technology Type. Available at: http://www.theclimateregistry.org/downloads/2013/01/2013-Climate-Registry-Default-Emissions-Factors.pdf. Accessed October 21, 2013.

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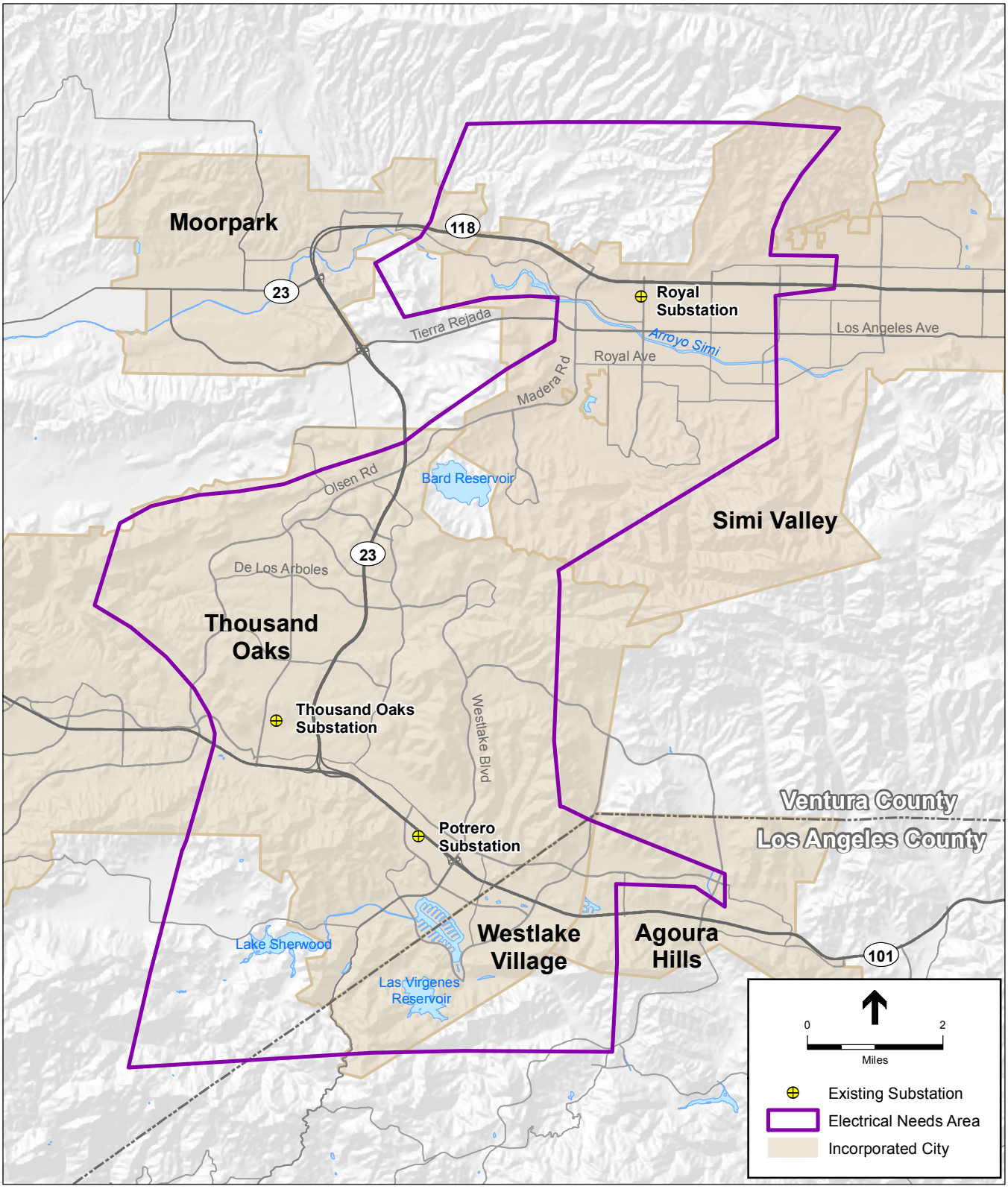
Appendix A
Draft EIR Figure 2-2

ESA



SOURCE: SCE, 2010

Presidential Substation Project . 207584.02

Figure 2-2
Electrical Needs Area

Appendix B
Air Quality and Greenhouse Gas Calculations

ESA

Table 1. Construction Criteria Pollutant Emission Summary

Construction Emission Source	Maximum Day Emissions (pounds/day)			
	ROG	NOX	PM10	PM2.5
Underground Distribution Civil Work from Royal Substation - On-site Construction Equipment	1.91	20.03	1.11	1.03
Underground Distribution Civil Work from Royal Substation - Off-site Construction Vehicles	0.50	14.88	0.25	0.23
Total	**2.41**	**34.91**	**1.36**	**1.26**

Note: Maximum day emissions assume that construction activities associated with: Royal Substation, the underground distribution from Royal Substation, Potrero Substation, and the underground distribution from Potrero Substation would all occur sequentially.

Table 2. Construction Greenhouse Gas Emission Summary

Construction Emission Source	CO2e metric tons
Royal Substation	
Site Prep. and Electrical - on-site	4.84
Site Prep. and Electrical - off-site	21.08
Wiring Work - on-site	0.00
Wiring Work - off-site	0.17
Testing/Maintenance Work - on-site	1.09
Testing/Maintenance Work - off-site	4.44
Underground Distribution Civil - on-site	45.45
Underground Distribution Civil - off-site	65.94
Underground Distribution Electrical - on-site	15.82
Underground Distribution Electrical - off-site	29.63
Subtotal	**188.46**
Potrero Substation	
Site Prep. and Electrical - on-site	4.67
Site Prep. and Electrical - off-site	10.41
Wiring Work - on-site	0.00
Wiring Work - off-site	0.17
Testing/Maintenance Work - on-site	1.09
Testing/Maintenance Work - off-site	4.44
Underground Distribution Civil - on-site	45.45
Underground Distribution Civil - off-site	65.94
Underground Distribution Electrical - on-site	15.82
Underground Distribution Electrical - off-site	29.63
Subtotal	**177.62**
Total	**366.08**

GHG CONSTRUCTION EMISSIONS

On-site Sources

GHG Emissions Factors for Diesel and Gasoline Exhaust

Fuel	CO_2 (g/gal)	N_2O (g/gal)	CH_4 (g/gal)
Diesel Fuel	10,210.00	0.26	0.58

Notes: Emission factors obtained from TCR, 2013, Tables 13.1 and 13.7.

Royal Substation - Site Preparation and Electrical Work

					Diesel Fuel		Total Emissions (metric tons)			
Off Road Equipment	Approx. HP	Number	Hour/Day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Manlift (crane)	75	2	6	10	1.32	158.1	1.61	0.00	0.00	1.63
Forklift	75	1	6	10	2.00	120.2	1.23	0.00	0.00	1.24
Boom Truck (crane)	100	1	6	10	1.32	79.0	0.81	0.00	0.00	0.81
Backhoe	80	1	6	10	1.59	95.6	0.98	0.00	0.00	0.98
Excavator with Auger Attachment	210	1	4	1	4.32	17.3	0.18	0.00	0.00	0.18
					Total	470.2	4.80	0.00	0.00	4.84

Royal Substation - Testing/Maintenance Work

					Diesel Fuel		Total Emissions (metric tons)			
Off-Road Equipment	Approx. HP	Number	Hour/day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Manlift (crane)	75	2	8	5	1.32	105.4	1.08	0.00	0.00	1.09
					Total 105.4		1.08	0.00	0.00	1.09

Underground Distribution from Royal Substation - Civil

					Diesel Fuel		Total Emissions (metric tons)			
Off Road Equipment	Approx. HP	Number	Hour/Day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Backhoe	125	2	8	53	2.73	2,311.7	23.60	0.00	0.00	23.82
Roller	100	1	8	53	1.69	717.0	7.32	0.00	0.00	7.39
Grinder	175	1	8	53	3.26	1,382.2	14.11	0.00	0.00	14.24
					Total 4,411.0		45.04	0.00	0.00	45.45

Underground Distribution from Royal Substation - Electrical

					Diesel Fuel		Total Emissions (metric tons)			
Off Road Equipment	Approx. HP	Number	Hour/Day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Rodder Truck	35	2	8	70	0.91	1,023.9	10.45	0.00	0.00	10.55
Cable Dolly	9	1	8	70	0.91	512.0	5.23	0.00	0.00	5.27
					Total 1,535.9		15.68	0.00	0.00	15.82

Potrero Substation - Site Preparation and Electrical Work

					Diesel Fuel		Total Emissions (metric tons)			
Off Road Equipment	Approx. HP	Number	Hour/Day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Manlift (crane)	75	2	6	10	1.32	158.1	1.61	0.00	0.00	1.63
Forklift	75	1	6	10	2.00	120.2	1.23	0.00	0.00	1.24
Boom Truck (crane)	100	1	6	10	1.32	79.0	0.81	0.00	0.00	0.81
Backhoe	80	1	6	10	1.59	95.6	0.98	0.00	0.00	0.98
					Total	452.9	4.62	0.00	0.00	4.67

Potrero Substation - Testing/Maintenance Work

					Diesel Fuel		Total Emissions (metric tons)			
Off-Road Equipment	Approx. HP	Number	Hour/day	Days	gallons/ hour	gallons	CO_2	N_2O	CH_4	CO_2e
Manlift (crane)	75	2	8	5	1.32	105.4	1.08	0.00	0.00	1.09
					Total 105.4		1.08	0.00	0.00	1.09

Underground Distribution from Royal Substation - Civil

Off Road Equipment	Approx. HP	Number	Hour/Day	Days	Diesel Fuel gallons/ hour	Diesel Fuel gallons	Total Emissions (metric tons) CO_2	N_2O	CH_4	CO_2e
Backhoe	125	2	8	53	2.73	2,311.7	23.60	0.00	0.00	23.82
Roller	100	1	8	53	1.69	717.0	7.32	0.00	0.00	7.39
Grinder	175	1	8	53	3.26	1,382.2	14.11	0.00	0.00	14.24
					Total 4,411.0		45.04	0.00	0.00	45.45

Underground Distribution from Potrero Substation - Electrical

Off Road Equipment	Approx. HP	Number	Hour/Day	Days	Diesel Fuel gallons/ hour	Diesel Fuel gallons	Total Emissions (metric tons) CO_2	N_2O	CH_4	CO_2e
Rodder Truck	35	2	8	70	0.91	1,023.9	10.45	0.00	0.00	10.55
Cable Dolly	9	1	8	70	0.91	512.0	5.23	0.00	0.00	5.27
					Total 1,535.9		15.68	0.00	0.00	15.82

Notes: fuel consumption factors are derived from Offroad 2011. The emission factors for the grinder, rodder truck, and cable dolly engines are from the "other construction equipment" class.

Off-Site Sources

Royal Substation Site Preparation and Electrical Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	27	30	0.90	0.00	0.00	19.8	0.0	0.0	20.57
Heavy duty truck	30	1	10	3.73	0.00	0.00	0.5	0.0	0.0	0.51
						Total	20.3	0.00	0.00	21.08

Royal Substation Wiring Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	6	15	0.00	0.00	0.00	0.0	0.0	0.0	0.17
Heavy duty truck	0	0	0	0.00	0.00	0.00	0.0	0.0	0.0	0.00
						Total	0.0	0.00	0.00	0.17

Royal Substation - Testing/Maintenance Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	5	35	0.90	0.00	0.00	4.3	0.0	0.0	4.44
Heavy duty truck	0	0	0	3.73	0.00	0.00	0.0	0.0	0.0	0.00
						Total	4.3	0.00	0.00	4.44

Underground Distribution from Royal Substation - Civil

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	13	53	0.90	0.00	0.00	16.8	0.0	0.0	17.50
Heavy duty truck	60	9	53	3.73	0.00	0.00	48.4	0.0	0.0	48.44
						Total	65.2	0.00	0.00	65.94

Underground Distribution from Royal Substation - Electrical

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	14	70	0.90	0.00	0.00	24.0	0.0	0.0	24.89
Heavy duty truck	10	4	70	3.73	0.00	0.00	4.7	0.0	0.0	4.74
						Total	28.7	0.00	0.01	29.63

Potrero Substation - Site Preparation and Electrical Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	26	15	0.90	0.00	0.00	9.5	0.0	0.0	9.91
Heavy duty truck	30	1	10	3.73	0.00	0.00	0.5	0.0	0.0	0.51
						Total	10.0	0.00	0.00	10.41

Potrero Substation - Wiring Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	4	15	0.00	0.00	0.00	0.0	0.0	0.0	0.17
Heavy duty truck	0	0	0	0.00	0.00	0.00	0.0	0.0	0.0	0.00
						Total	0.0	0.00	0.00	0.17

Potrero Substation - Testing/Maintenance Work

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	5	35	0.90	0.00	0.00	4.3	0.0	0.0	4.44
Heavy duty truck	0	0	0	3.73	0.00	0.00	0.0	0.0	0.0	0.00
						Total	4.3	0.00	0.00	4.44

Underground Distribution from Potrero Substation - Civil

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	13	53	0.90	0.00	0.00	16.8	0.0	0.0	17.50
Heavy duty truck	60	9	53	3.73	0.00	0.00	48.4	0.0	0.0	48.44
						Total	65.2	0.00	0.00	65.94

Underground Distribution from Potrero Substation - Electrical

On-road Sources	Miles/veh	Veh/day	Days	Running Exhaust Emission Factors (pound/mile) CO_2	CH_4	N2O	Total Emissions (Metric tons) CO_2	N_2O	CH_4	CO_2e
Light duty truck	60	14	70	0.90	0.00	0.00	24.0	0.0	0.0	24.89
Heavy duty truck	10	4	70	3.73	0.00	0.00	4.7	0.0	0.0	4.74
						Total	28.7	0.00	0.01	29.63

Notes:

Off-road emission factors were derived using OFFROAD2011

CO2 on-road emission factors were derived using EMFAC2011; CH4 and N20 emission factors are from TCR, 2013, Table 13.4.

*Global Warming Potential for CH4 = 21; GWP for N2O = 310.

Source: California Climate Action Registry (CCAR), 2009.

CRITERIA POLLUTANT ON-SITE CONSTRUCTION EXHAUST EMISSIONS

Royal Substation - Site Preparation and Electrical Work

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Manlift (crane)	75	2	6	0.074	0.582	0.043	0.88	6.98	0.52	0.48
Forklift	75	1	6	0.031	0.381	0.022	0.19	2.29	0.13	0.12
Boom Truck (crane)	100	1	6	0.074	0.582	0.043	0.44	3.49	0.26	0.24
Backhoe	80	1	6	0.041	0.375	0.029	0.25	2.25	0.18	0.16
Excavator with Auger Attachment	210	1	4	0.057	0.805	0.026	0.23	3.22	0.10	0.09
						Total lbs.	1.98	18.23	1.19	1.10

Royal Substation - Testing/Maintenance Work

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off-Road Equipment	HP	Number	Hour/day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Manlift (crane)	75	2	8	0.074	0.582	0.043	1.18	9.31	0.69	0.64
						Total	1.18	9.31	0.69	0.64

Underground Distribution from Royal Substation - Civil

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Backhoe	125	2	8	0.052	0.577	0.029	0.83	9.24	0.46	0.43
Roller	100	1	8	0.052	0.459	0.034	0.42	3.67	0.27	0.25
Grinder	175	1	8	0.083	0.890	0.047	0.66	7.12	0.37	0.34
						Total lbs.	1.91	20.03	1.11	1.03

Underground Distribution from Royal Substation - Electrical

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Rodder Truck	35	2	8	0.047	0.194	0.017	0.76	3.10	0.28	0.26
Cable Dolly	9	1	8	0.047	0.194	0.017	0.38	1.55	0.14	0.13
						Total lbs.	1.14	4.65	0.42	0.39

Potrero Substation - Site Preparation and Electrical Work

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Manlift (crane)	75	2	6	0.074	0.582	0.043	0.88	6.98	0.52	0.48
Forklift	75	1	6	0.031	0.381	0.022	0.19	2.29	0.13	0.12
Boom Truck (crane)	100	1	6	0.074	0.582	0.043	0.44	3.49	0.26	0.24
Backhoe	80	1	6	0.041	0.375	0.029	0.25	2.25	0.18	0.16
						Total lbs.	1.76	15.01	1.09	1.01

Potrero Substation - Testing/Maintenance Work

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off-Road Equipment	HP	Number	Hour/day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Manlift (crane)	75	2	8	0.074	0.582	0.043	1.18	9.31	0.69	0.64
						Total	1.18	9.31	0.69	0.64

Underground Distribution from Potrero Substation - Civil

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Backhoe	125	2	8	0.052	0.577	0.029	0.83	9.24	0.46	0.43
Roller	100	1	8	0.052	0.459	0.034	0.42	3.67	0.27	0.25
Grinder	175	1	8	0.083	0.890	0.047	0.66	7.12	0.37	0.34
						Total lbs.	1.91	20.03	1.11	1.03

Underground Distribution from Potrero Substation - Electrical

	Approx.			Emission Factor (pounds/hour)			Emissions (pounds)			
Off Road Equipment	HP	Number	Hour/Day	ROG	NOX	PM	ROG	NOX	PM10	PM2.5
Rodder Truck	35	2	8	0.047	0.194	0.017	0.76	3.10	0.28	0.26
Cable Dolly	9	1	8	0.047	0.194	0.017	0.38	1.55	0.14	0.13
						Total lbs.	1.14	4.65	0.42	0.39

Notes: Emission factors are based on CARB's Off-road emissions inventory database (see Off-road Output). A factor of 1.26639 was applied to THC to obtain ROG based on CARB (2000). A factor of 0.92 was applied to PM10 to obtain PM2.5 based on SCAQMD (2006).

California Air Resources Board (CARB), 2000. Public Meeting to Consider Approval of Revisions to the State's On-road Motor Vehicle Emissions Inventory, Technical Support Document, Section 4.13, Factors for Converting THC Emissions Rates TOG/ROG, May 2000.

ONROAD CRITERIA POLLUTANT EMISSIONS

Emission Factors

	Running Exhaust Emission Factors (pounds/mile)			
Vehicle Type	ROG	NOx	PM10	PM2.5
Light duty truck	0.0001	0.0007	0.0000	0.0000
Heavy duty truck	0.0007	0.0265	0.0005	0.0004

Note: derived from EMFAC 2011.

Construction Emissions (pounds/day)

Royal Substation Site Preparation and Electrical Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	27	0.23	1.16	0.01	0.01
Heavy duty truck	30	1	0.02	0.80	0.01	0.01
		Total	0.26	1.96	0.02	0.02

Royal Substation Wiring Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	6	0.05	0.26	0.00	0.00
Heavy duty truck	0	0	0.00	0.00	0.00	0.00
			0.05	0.26	0.00	0.00

Royal Substation - Testing/Maintenance Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	5	0.04	0.22	0.00	0.00
Heavy duty truck	0	0	0.00	0.00	0.00	0.00
			0.04	0.22	0.00	0.00

Underground Distribution from Royal Substation - Civil

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	13	0.11	0.56	0.00	0.00
Heavy duty truck	60	9	0.39	14.32	0.25	0.23
			0.50	14.88	0.25	0.23

Underground Distribution from Royal Substation - Electrical

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	14	0.12	0.60	0.00	0.00
Heavy duty truck	10	4	0.03	1.06	0.02	0.02
			0.15	1.66	0.02	0.02

Potrero Substation - Site Preparation and Electrical Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	26	0.23	1.12	0.01	0.01
Heavy duty truck	30	1	0.02	0.80	0.01	0.01
			0.25	1.91	0.02	0.02

Potrero Substation - Wiring Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	Miles/veh	Veh/day	ROG	NOx	PM10	PM2.5
Light duty truck	60	4	0.03	0.17	0.00	0.00
Heavy duty truck	0	0	0.00	0.00	0.00	0.00
			0.03	0.17	0.00	0.00

Potrero Substation - Testing/Maintenance Work

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	**Miles/veh**	**Veh/day**	**ROG**	**NOx**	**PM10**	**PM2.5**
Light duty truck	60	5	0.04	0.22	0.00	0.00
Heavy duty truck	0	0	0.00	0.00	0.00	0.00
			0.04	0.22	0.00	0.00

Underground Distribution from Potrero Substation - Civil

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	**Miles/veh**	**Veh/day**	**ROG**	**NOx**	**PM10**	**PM2.5**
Light duty truck	60	13	0.11	0.56	0.00	0.00
Heavy duty truck	60	9	0.39	14.32	0.25	0.23
			0.50	14.88	0.25	0.23

Underground Distribution from Potrero Substation - Electrical

			Vehicle Exhaust Emissions (pounds/day)			
On-road Sources	**Miles/veh**	**Veh/day**	**ROG**	**NOx**	**PM10**	**PM2.5**
Light duty truck	60	14	0.12	0.60	0.00	0.00
Heavy duty truck	10	4	0.03	1.06	0.02	0.02
			0.15	1.66	0.02	0.02

OFFROAD 2011: OFF-ROAD EMISSION FACTORS

Calendar Year	Air Basin	Equipment Type	HPBin	Scen BSFC	BSFC (gal/hr)*	Scen NOx	NOX (lbs/hr)	Scen PM	PM10 (lbs/hr)	Scen HC	HC(lbs/hr)	Activity	ScenPopulation
2014	SCC	Bore/Drill Rigs	50	8381.559723	1.1674037	0.117261824	0.232002	0.0083964	0.0166122	0.0151574	0.0299889	1010.8692	3.1530194
2014	SCC	Bore/Drill Rigs	120	51158.26146	2.0745269	0.664252477	0.3826267	0.0394407	0.0227189	0.0417262	0.0240354	3472.0656	9.6581962
2014	SCC	Bore/Drill Rigs	175	60024.66721	3.9121101	0.722629323	0.6690147	0.033061	0.0306081	0.0452224	0.0418672	2160.2793	7.5672465
2014	SCC	Bore/Drill Rigs	250	84671.42526	5.3494662	0.903872279	0.8111841	0.0269005	0.0241419	0.0460558	0.041333	2228.5256	7.5340568
2014	SCC	Bore/Drill Rigs	500	94487.18039	8.8826412	0.922962449	1.2325145	0.0292421	0.0390496	0.048313	0.0645167	1497.6902	5.2771587
2014	SCC	Cranes	50	2732.203619	0.6637945	0.045561458	0.1572378	0.0045409	0.0156712	0.0130683	0.0451002	579.5229	1.4604917
2014	SCC	Cranes	120	65165.07825	1.317425	2.026560555	0.5819817	0.1504738	0.0432126	0.2023842	0.0581201	6964.344	17.609358
2014	SCC	Cranes	175	171991.5152	2.2137718	4.351570768	0.7956291	0.2347889	0.0429282	0.3368395	0.0615868	10938.692	26.414036
2014	SCC	Cranes	250	290524.1541	3.2369689	6.845090959	1.0833637	0.3137385	0.049655	0.4755329	0.075262	12636.736	29.668846
2014	SCC	Cranes	500	445002.3002	5.0029768	8.373603649	1.3372648	0.3469985	0.0554157	0.5334523	0.0851924	12523.478	28.458725
2014	SCC	Other Construction Equipment	50	74662.24887	0.9142106	1.11372603	0.1937146	0.1005142	0.0174828	0.2151039	0.0374138	11498.628	26.832097
2014	SCC	Other Construction Equipment	120	233335.0812	1.7461191	4.660743381	0.4954363	0.3637563	0.0386672	0.4230394	0.044969	18814.703	47.344386
2014	SCC	Other Construction Equipment	175	127241.8538	3.2599345	2.445064074	0.8898318	0.1278601	0.0465321	0.1796697	0.0653872	5495.5645	14.73418
2014	SCC	Other Construction Equipment	250	163231.7313	4.689318	2.80924562	1.1463932	0.1033225	0.0421637	0.1631421	0.0665748	4901.0158	13.217426
2014	SCC	Other Construction Equipment	500	557464.3609	7.7237769	7.573406183	1.4905366	0.2790236	0.0549152	0.4522797	0.089014	10161.986	25.676475
2014	SCC	Rollers	50	187637.9683	0.7709224	2.727184226	0.1591634	0.2445348	0.0142715	0.5466568	0.0319039	34268.988	109.8749
2014	SCC	Rollers	120	293141.25	1.6910322	5.603216358	0.4591463	0.4172612	0.0341918	0.5036085	0.0412674	24407.104	81.940604
2014	SCC	Rollers	175	303069.846	2.7872553	4.300380593	0.5617974	0.1994578	0.026057	0.2767664	0.0361565	15309.365	47.376567
2014	SCC	Rollers	250	47831.37836	4.1437602	0.774526622	0.9531404	0.0274397	0.0337676	0.0451561	0.0555696	1625.21	5.8103337
2014	SCC	Rollers	500	30134.79551	6.5604026	0.464278199	1.4357517	0.0180518	0.0558242	0.0279678	0.0864887	646.73886	2.3837267
2014	SCC	Rough Terrain Forklifts	50	9556.948467	1.0938308	0.134712247	0.2190165	0.0112352	0.0182663	0.0251798	0.0409375	1230.1563	4.9904676
2014	SCC	Rough Terrain Forklifts	120	768578.1428	2.0033468	10.30022349	0.3813762	0.6016906	0.0222782	0.6683101	0.0247449	54016.084	213.81572
2014	SCC	Rough Terrain Forklifts	175	141326.3767	2.6890458	1.527392648	0.4128236	0.0592597	0.0160167	0.07775	0.0210143	7399.7359	28.609146
2014	SCC	Rough Terrain Forklifts	250	11624.18401	4.3364716	0.103945572	0.5508316	0.0030342	0.016079	0.0053616	0.0284122	377.41327	1.6778296
2014	SCC	Rough Terrain Forklifts	500	4925.443558	7.6916349	0.052278711	1.1596768	0.0011375	0.0252318	0.0021003	0.0465898	90.160827	0.3871915
2014	SCC	Tractors/Loaders/Backhoes	50	280572.6051	0.7963031	4.14406466	0.16707	0.3768366	0.0151924	0.8520482	0.0343507	49608.726	106.5231
2014	SCC	Tractors/Loaders/Backhoes	120	4533308.413	1.5931996	75.06218013	0.3747269	5.8965827	0.029437	6.4710839	0.0323051	400623.37	723.28075
2014	SCC	Tractors/Loaders/Backhoes	175	783445.1459	2.7261134	11.68160766	0.5773999	0.587513	0.0290397	0.8268474	0.0408695	40462.795	80.913021
2014	SCC	Tractors/Loaders/Backhoes	250	453961.7088	3.8775479	6.72989927	0.8165547	0.2170646	0.026337	0.3694353	0.0448245	16483.645	32.365208
2014	SCC	Tractors/Loaders/Backhoes	500	610980.0137	6.1015892	8.228642283	1.1673012	0.27834	0.0394848	0.4730665	0.0671084	14098.576	29.210343
2014	SCC	Excavators	50	333341.7452	0.7852743	4.464438743	0.1493954	0.3418789	0.0114404	0.6131274	0.0205173	59766.737	90.709969
2014	SCC	Excavators	120	432932.7832	1.5971032	6.742127589	0.3533038	0.5023866	0.0263263	0.5570458	0.0291905	38166.181	65.609708
2014	SCC	Excavators	175	911876.4197	2.8834022	12.74838604	0.5726157	0.6266088	0.0281452	0.8823927	0.0396342	44526.848	83.358118
2014	SCC	Excavators	250	1160066.511	4.3169697	15.21976107	0.8045309	0.4828683	0.0255249	0.8460979	0.0447255	37835.118	71.66199
2014	SCC	Excavators	500	1924724.274	6.4674511	19.43643403	0.9277266	0.6263448	0.0298963	1.1147019	0.0532062	41901.211	72.887298

*Assumes there is 1.874 pounds/liter of diesel

EMFAC 2011 ON-ROAD EMISSION FACTORS

Heavy Duty Trucks

EMFAC2011 Emission Rates
Region Type: Air Basin
Region: South Central Coast
Calendar Year: 2014
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed	Population	VMT	Trips	ROG_RUNEX	NOX_RUNEX	PM10_RUNEX	PM2_5_RUNEX
						(miles/hr)	(vehicles)	(miles/day)	(trips/day)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
South Central Coast	2014	Annual	T7 single construction	DSL	Aggregated	Aggregated	389.281561	28061.0986	0	0.323969229	12.02621066	0.209213058	0.192476013

Light Duty Trucks

EMFAC2011 Emission Rates
Region Type: Air Basin
Region: South Central Coast
Calendar Year: 2014
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed	Population	VMT	Trips	ROG_RUNEX	NOX_RUNEX	PM10_RUNEX	PM2_5_RUNEX
						(miles/hr)	(vehicles)	(miles/day)	(trips/day)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
South Central Coast	2014	Annual	LDT2	GAS	Aggregated	Aggregated	226638.722	8230766.77	1421733	0.065537157	0.325103583	0.002275405	0.002079495

Appendix C

Mitigation Monitoring, Reporting, and Compliance Program

ESA

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM

SOUTHERN CALIFORNIA EDISON'S
PRESIDENTIAL SUBSTATION PROJECT
(APPLICATION NO. **A.08-12-023**)

INTRODUCTION

This document describes the mitigation monitoring, reporting and compliance program (MMRCP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Southern California Edison's (SCE) application to construct, operate and maintain the Proposed Project. All mitigations are presented in Table C-1 provided at the end of this MMRCP.

If the Proposed Project or a project alternative is approved (the 'approved project'), this MMRCP would serve as a self-contained general reference for the Mitigation Monitoring Program adopted by the CPUC for the project. If and when the Proposed Project or a project alternative has been approved by the CPUC, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Environmental Impact Report (EIR), as adopted.

California Public Utilities Commission – MMRCP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Public Resources Code §21081.6. Public Resources Code §21081.6 requires a public agency to adopt a MMRCP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines §15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP as a working guide to facilitate not only the

implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code §21081.6 when it takes action on SCE's applications. If the CPUC approves the applications, it will also adopt a Mitigation Monitoring, Compliance, and Reporting Program that includes the mitigation measures ultimately made a condition of approval by the CPUC.

Because the CPUC must decide whether or not to approve the SCE application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves SCE's application for authority to construct the proposed Presidential Substation and subtransmission alignments or one of the project alternatives, SCE would be responsible for implementation of any mitigation measures governing both construction and future operation of the approved project. Though other State and local agencies would have permit and approval authority over construction of the approved project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by this EIR. All approvals and permits obtained by SCE would be submitted to the CPUC for mitigation compliance prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the Proposed Project or one of its alternatives. Project activities considered include the construction of the proposed Presidential Substation or Alternative Substation Site B, and associated subtransmission alignments, telecommunications connection, and 16 kV distribution getaways, as well as the future operation of these project components. Project activities also considered include an alternative that would increase the capacity of two existing substations using standard transformer sizes, and construct two new distribution circuits.

The attached EIR presents and analyzes potential environmental impacts that would result from construction, operation and maintenance of the Proposed Project and alternatives, and proposes mitigation measures, as appropriate. Based on the EIR, approval of the Proposed Project would have the following impacts:

No Impact or Less-Than-Significant Impacts

- Geology, Soils, Seismicity, and Mineral Resources
- Land Use and Planning
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

Impacts Less-Than-Significant with Mitigation

- Agriculture and Forestry Resources
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Transportation and Traffic

Significant Unavoidable Impacts

- Aesthetics
- Air Quality
- Noise

The EIR indicates that approval of the Environmentally Superior Alternative, System Alternative A, would result in the following impacts:

No Impact or Less-Than-Significant Impacts

- Aesthetics
- Agriculture and Forestry Resources
- Geology, Soils, Seismicity, and Mineral Resources
- Hydrology and Water Quality
- Land Use and Planning
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

Impacts Less-Than-Significant with Mitigation

- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Transportation and Traffic
- Noise

Significant Unavoidable Impacts

- Air Quality

SCE has agreed to incorporate all the proposed mitigation measures into the approved project. The CPUC has included the stipulated mitigation measures as conditions of approval of the applications and has circulated a Draft EIR.

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor the approved project to ensure that the required mitigation measures and any Applicant Proposed Measures (APMs) are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the Program. The CPUC has the authority to halt any activity associated with the approved project if the activity is determined to be a deviation from the approved project or the adopted mitigation measures.

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

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the approved project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, a variance should be strictly limited to minor project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. An approved project change that has the potential for creating significant

environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and approval. In some cases, a variance may also require approval by a CEQA responsible agency.

Enforcement and Responsibility

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

Mitigation Compliance Responsibility

SCE is responsible for successfully implementing all the adopted mitigation measures in this MMRCP. The MMRCP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

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

Dispute Resolution Process

This MMRCP is expected to reduce or eliminate many of the potential disputes concerning the implementation of the adopted measures. However, in the event that a dispute occurs, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.

- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved project or adopted Mitigation Monitoring Program.

- **Step 3**. If a dispute or complaint regarding the implementation or evaluation of the MMRCP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within

10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.

- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the CPUC via a procedure to be specified by the CPUC.

Parties may also seek review by the CPUC through existing procedures specified in the CPUC's Rules of Practice and Procedure for formal and expedited relief.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

Construction Personnel

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

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SCE and any construction contractors. Procedures to be followed by construction crews will be written into a separate agreement that all construction personnel will be asked to sign, denoting agreement.

- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.

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

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be

recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. SCE shall provide the CPUC with written quarterly reports of the project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

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

Condition Effectiveness Review

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

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and

- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

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

Applicant Proposed Measures

The following APMs would be implemented to avoid or reduce potential impacts from the approved project, as applicable.

- **APM-BIO-01: Minimize Impacts to Coastal Sage Scrub.** To the extent feasible, the Proposed Project would be designed to avoid or minimize impacts to coastal sage scrub. Mitigation measures and compensation for impacts to coastal sage scrub would be developed in consultation with USFWS and CDFG to reduce the impacts to less than significant.

- **APM-BIO-02: Minimize Impacts to Jurisdictional Drainages.** A jurisdictional drainage delineation would be conducted during Spring 2009 to describe and map the extent of resources under the jurisdiction of the USACE, the RWQCB, and/or the CDFG following the guidelines presented in the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. As appropriate, SCE would secure a Streambed Alteration Agreement from the CDFG, and Clean Water Act Section 404 and 401 permits from the USACE and LARWQCB, respectively, prior to disturbing the jurisdictional drainage.

- **APM-BIO-03: Additional Biological Resource APMs.** SCE may propose additional biological resource APMs following receipt of results of focused surveys that would be conducted as part of the Proposed Project, and consultation with appropriate agencies.

- **APM CUL-1: Cultural Resources Treatment Plan**. SCE will develop a Cultural Resources Treatment Plan that would define appropriate actions necessary to lessen or avoid potential impacts to sites CA-VEN-1571 and CA-VEN-744.

- **APM CUL-2: Installation of Geotextile Type Fabric along Access Road.** Prior to construction, SCE will address the drivability of the access road leading to site CA-VEN-744. In the event that the road is determined to be inadequate for transporting of equipment, SCE would design and implement the placement of geotextile-type fabric and fill soil along the road prior to access road usage. The placement of the geotextile-type fabric and fill soil would protect the archaeological site from potential impacts such as increased displacing of artifacts of the existing site surface due to vehicle traffic and road maintenance.

- **APM CUL-3: Capping of Archaeological Site on Potential Impact Areas.** Prior to installation of the subtransmission structure located at site CA-VEN-744, SCE will cap the portions of the site that have the potential to be impacted. To cap the site, SCE will place geotextile-type fabric on the surface of the archaeological site and then spread imported fill soil or other suitable material over the geotextile-type fabric. The capping will prevent future erosion of the site surface as a result of SCE's ingress and egress for maintenance and inspection activities. The archaeological site cap will not be removed after construction.

- **APM CUL-4: Construction of Earthen Pad.** SCE will install an earthen pad adjacent to the existing subtransmission structure location. The earthen pad is necessary to support heavy equipment required to install the subtransmission structure safely, while preserving archaeological site CA-VEN-744 from potential construction related impacts. The earthen pad area will be covered by geotextile-type fabric and then overlaid by "honey comb structure." The honey comb structure will be filled with imported fill soil. The earthen pad would not be removed after construction and will be utilized for maintenance activities.

- **APM CUL-5: Fencing of an Environmentally Sensitive Area.** SCE would install an Environmentally Sensitive Area (ESA) fence to protect portions of archaeological sites CA-VEN-744 and CA-VEN-1571 from potential impacts.

- **APM CUL-6: Native American Monitoring.** SCE will retain the services of a Chumash Native American representative to conduct monitoring activities during work carried out within sites CA-VEN-744 and CA-VEN–1571 and in their vicinity. The Native American representative will be present during any archaeological excavations and during project construction in those areas determined by SCE's project archaeologist as having the potential to contain archaeological resources.

- **APM CUL-7: Archaeological Monitoring.** A qualified archaeologist will be on site to monitor ground-disturbing activities within or in the vicinity of sites CA-VEN-744 and CA-VEN–1571. If archaeological resources were identified during construction activities, construction would be halted in that area and away from the discovery, until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve or recover the resources.

- **APM-PAL-01: Develop and Implement a Paleontological Monitoring Plan.** A project paleontologist meeting the qualifications established by the Society of Vertebrate Paleontologists shall be retained by SCE to develop and implement a Paleontological Monitoring Plan prior to the start of ground disturbing activities at the Proposed Project substation site. As part of the Paleontological Monitoring Plan, the project paleontologist shall establish a curation agreement with an accredited facility prior to the initiation of ground-disturbing activities. The Paleontological Monitoring Plan shall also include a final monitoring report. If fossils are identified, the final monitoring report shall contain an appropriate description of the fossils, treatment, and curation. The Paleontological Monitoring Plan shall ~~also~~ include a ~~final monitoring report~~ provision for the preparation of a final report at the conclusion of the project. If fossils are identified, the final monitoring report shall contain an appropriate description of the fossils, treatment, and curation.

- **APM-PAL-02: Paleontological Monitoring.** A paleontological monitor shall be on site to observe ground-disturbing activities within the paleontologically sensitive formations at the Proposed Project substation site. If fossils are found during ground-disturbing activities, the paleontological monitor shall be empowered to halt the ground-disturbing activities within 25 feet of the find in order to allow evaluation of the find and determination of appropriate treatment.

Mitigation Monitoring, Reporting and Compliance Program

Table C-1 presents a compilation of all mitigation measures in the EIR. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, monitoring and reporting requirements, and timing.

If the CPUC approves System Alternative A, the Environmentally Superior Alternative, only a portion of the mitigation measures presented in Table C-1 would apply. System Alternative A would require the following mitigation measures:

4.3-1	4.5-3	4.8-1d	4.11-1b
4.3-2	4.5-4	4.8-1e	4.11-4
4.3-4	4.5-5	4.8-2	4.15-1a
4.4-3	4.7-2	4.8-3	4.15-1b
4.5-1	4.8-1a	4.8-5	4.15-1d
4.5-2a	4.8-1b	4.8-6	4.15-3
4.5-2b	4.8-1c	4.11-1a	4.15-4

TABLE C-1
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics				
Impact 4.1-2: The Proposed Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a county scenic highway. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-2a:** For all pole structures that are visible from viewsheds where visual impacts are significant (i.e., Highway 23, Read Road, Underwood Family Farms, and Olsen Road), SCE shall apply surface coatings with appropriate colors, finishes and textures to most effectively blend the structures with the visible backdrop landscape. For structures that are visible from one or more sensitive viewing locations, the darker colors shall be selected, because darker colors tend to blend into landscape more effectively than lighter colors, which may contrast and produce glare. At locations where a tubular steel pole or light-weight steel pole would be silhouetted against the skyline, non-reflective, light-gray colors shall be selected to blend with the sky. SCE shall develop a Structure Surface Treatment Plan for the tubular steel poles, light-weight steel poles, and any other visible structures in consultation with a visual specialist designated by the CPUC, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall submit the Structure Surface Treatment Plan to the CPUC for review and approval at least 90 days prior to the start of construction.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction of new poles/towers.
	Mitigation Measure 4.1-2b: The subtransmission line conductors shall be non-specular and non-reflective and the insulators shall be non-reflective and non-refractive.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During installation of subtransmission line conductors.
	Mitigation Measure 4.1-2c: Prior to the start of construction of the retaining wall and reinforced geogrids visible from Highway 23, SCE will submit to the City of Thousand Oaks a landscaping plan and wall design, as part of the grading permit application for the Proposed Project.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Impact 4.1-3: The Proposed Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a city-designated scenic highway. *Significant unavoidable* (Class I)	**Mitigation Measure 4.1-3a:** Implement Mitigation Measure 4.1-2b. **Mitigation Measure 4.1-3b:** Implement Mitigation Measure 4.1-2a.	SCE and its contractors to implement measure as defined. SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance. CPUC mitigation monitor to inspect compliance.	During installation of subtransmission line conductors. During construction of new poles/towers.
Impact 4.1-5: Construction of the proposed Presidential Substation could result in a temporary adverse impact to visual quality. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-5:** The temporary fencing used during construction at the Presidential Substation site shall incorporate aesthetic treatment through use of appropriate, non-reflective materials, such as chain link fence with light brown or green vinyl slats. SCE shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 60 days prior to the start of construction.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Submit plans to CPUC at least 60 days prior to commencement of construction activities.
Impact 4.1-6: Use of construction pulling/stringing set-up locations during the approximately 13-20 month construction period could result in temporary adverse impacts to visual quality. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-6:** SCE shall not place equipment on the pulling/splicing sites any sooner than two weeks prior to the required use.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and installation of pulling/splicing sites.
Impact 4.1-8: The Proposed Project could substantially degrade the existing visual character or quality of the Proposed Project site and its surroundings from public views. *Significant unavoidable* (Class I)	**Mitigation Measure 4.1-8a:** SCE will submit to the City of Thousand Oaks a landscaping plan and perimeter wall design that maximizes screening of the Presidential Substation using trees, shrubs, other landscaping, and appropriate wall design, as part of the grading permit application for the Project. **Mitigation Measure 4.1-8b:** Implement Mitigation Measure 4.1-2b and Mitigation Measure 4.1-3b.	SCE and its contractors to implement measure as defined. SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance. CPUC mitigation monitor to inspect compliance.	During installation of subtransmission line conductors and new poles and towers. During installation of subtransmission line conductors and new poles and towers.
Impact 4.1-9: The Proposed Project would create new sources of light or glare that could adversely affect views in the project area. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-9a:** SCE shall design and install all lighting at project facilities, including construction and storage yards and the staging area, such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a *Construction and Operation Lighting Mitigation Plan,* which includes a photometric analysis indicating that these objectives would be achieved under SCE's proposed lighting design, to the City of Thousand Oaks and the CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction and Operation Lighting Mitigation Plan* is approved by the City of Thousand Oaks and the CPUC. The Plan shall include but is not limited to the following measures:	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	At least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components.
	• Lighting shall be designed so exterior lighting is 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, and to reduce glare. • 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.			

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics (cont.)				
Impact 4.1-9 (cont.)	**Mitigation Measure 4.1-9b:** Implement Mitigation Measure 4.1-9a.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	At least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components.
	Mitigation Measure 4.1-9c: Only low profile shaded street lighting, if needed, shall be used to reduce down slope light spillover and night glare.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation.
	Mitigation Measure 4.1-9d: Implement Mitigation Measure 4.1-2b.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During installation of subtransmission line conductors.
Impact 4.1-10: Alternative Substation Site B could substantially degrade the existing visual character or quality of the project site and its surroundings from public views. *Less than significant with mitigation* (Class I)	**Mitigation Measure 4.1-10:** Prior to the start of the substation construction, SCE shall consult with the City of Simi Valley to develop an appropriate landscaping plan and perimeter wall design. The preliminary landscaping plan shall include a mixture of groundcover, shrubs, and trees based on the City of Simi Valley guidelines and standards for landscape plantings. Landscaping at the proposed substation site shall be designed to filter views for the surrounding community and other potential sensitive receptors. Plants shall be installed and maintained outside the south, east and west perimeter walls.[1]	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Agriculture and Forestry Resources				
Impact 6-1	**Mitigation Measure 6-1:** SCE shall obtain agricultural conservation easements, as defined under Civil Code section 815 *et seq*, at a one to one (1:1) ratio for each acre of Farmland that is permanently converted by the Proposed Project. An agricultural conservation easement is a voluntary, recorded agreement between a landowner and a holder of the easement that preserves the land for agriculture. The easement places legally enforceable restrictions on the land. The exact terms of the easement are negotiated, but restricted activities shall include subdivision of that property, non-farm development, and other uses that are inconsistent with agricultural production. The mitigation lands must be of equal or better quality (according to the latest available FMMP data) and have an adequate water supply. In addition, the mitigation lands must be within the same county as the impact.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Air Quality				
Impact 4.3-1: Project construction activities would generate ozone precursor emissions that could contribute substantially to a violation of ozone air quality standards. *Significant unavoidable* (Class I)	**Mitigation Measure 4.3-1:** For off-road construction equipment of more than 50 horsepower and on-road diesel fueled vehicles, SCE shall make a good faith effort to ensure achievement of a Project-wide fleet-average 20 percent NO_x reduction compared to the most recent CARB fleet average. A Construction Equipment NO_x Reduction Plan to achieve the reductions shall be submitted to CPUC for review and approval prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as such become available. If SCE determines that the 20 percent NO_x reduction cannot feasibly be achieved, the Construction Equipment NO_x Reduction Plan shall include documentation from at least two local heavy construction equipment rental companies that indicates that the companies do not have access to necessary amounts of equipment with late model engines, engine retrofits, after treatment products, etc.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Impact 4.3-2: Project construction activities would generate fugitive dust emissions of criteria pollutants that could contribute substantially to an existing or projected air quality violation. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.3-2:** SCE shall reduce construction-related fugitive dust emissions by implementing the following VCAPCD dust control measures. SCE shall require all contractors to comply with the following requirements: • Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. • All soil and fill haul trucks shall be required to have covered loads. • All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to or during construction activities.

[1] Mitigation Measure 4.1-10 was included in the Draft EIR but accidentally omitted in the Draft EIR MMRCP Section – the addition in the Final EIR is a typographical correction and does not represent a new impact or mitigation.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality (cont.)				
Impact 4.3-2 (cont.)	• Graded and/or excavated inactive areas of the construction site shall be monitored by the mitigation monitor at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust. • Signs shall be posted at the proposed Presidential Substation work site limiting traffic to 15 miles per hour or less. • During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with the mitigation monitor in determining when winds are excessive. • Adjacent public streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads. • Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.			
Impact 4.3-4: Construction activities would result in emissions of NOx that would be cumulatively considerable. *Significant unavoidable* (Class I)	**Mitigation Measure 4.3-4:** Implement Mitigation Measures 4.3-1 (Construction Equipment NOx Reductions) and 4.3-2 (Fugitive Dust Mitigation Plan).	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Biological Resources				
Impact 4.4-1: Construction activities associated with the Proposed Project could result in adverse impacts to the following federal and/or State-Listed Endangered or Threatened plant species: Braunton's milk-vetch, Agoura Hills dudleya, Conejo dudleya, and Lyon's pentachaeta as well as other non listed special-status species. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-1:** SCE and or its contractors shall develop and implement a Noxious Weed and Invasive Plant Control Plan consistent with standard BMPs (see for example: Department of Transportation, State of California (Storm Water Quality Handbook - Project Planning and Design Guide [Caltrans, 2010]; and Construction Site Best Management Practices Manual [Caltrans, 2003]). The Plan shall be reviewed and approved by the Ventura County Office of the Agricultural Commissioner and the CPUC. At a minimum, the Plan shall address any required cleaning of construction vehicles to minimize spread of noxious weeds and invasive plants.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 4.4-2: Construction activities associated with the Proposed Project could result in adverse impacts to the following special-status wildlife species, if present: western pond turtle, coast horned lizard, Swainson's hawk, American peregrine falcon, coastal California gnatcatcher, and San Diego desert woodrat. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-2a:** Within areas that provide potentially suitable habitat, SCE and/or its contractors shall perform preconstruction surveys within 24 hours of initial ground disturbance to identify the potential presence of western pond turtle, coast horned lizard and San Diego desert woodrat within work areas. If any of these species are identified during surveys of the immediate project footprint, individuals shall be relocated from work areas by an individual who is authorized by CDFG to undertake species relocation. A suitable relocation area shall be identified and approved by CDFG prior to preconstruction surveys.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Twenty-four hours prior to initial ground disturbance activities.
	Mitigation Measure 4.4-2b: Where impacts to coastal sage scrub cannot be avoided (e.g. at the proposed Presidential Substation site and portions of substranmission alignments), SCE and/or its contractors shall contact CDFG and the USFWS to coordinate coastal scrub avoidance measures that have been incorporated into the project design, and determine if additional measures are needed to reduce impacts to coastal California gnatcatcher habitat. Avoidance measures may include limiting the seasonal timing of work outside the breeding so that active gnatcatcher nesting is not disrupted during construction, limiting project disturbances to the smallest possible area in or near areas with suitable habitat, and providing environmental training to construction workers. In addition, the following actions will be carried out: • Coastal sage scrub shall be restored at a 1:1 ratio in areas where it is temporarily disturbed. If permanent impacts are anticipated to coastal sage scrub, SCE shall establish new habitat at a ratio of at least 1:1 (one acre of created habitat for each acre lost) to achieve a no-net loss standard. • A qualified ecologist shall prepare a restoration and mitigation plan in coordination with CDFG and USWS to mitigate for temporary impacts to coastal sage scrub habitat with the intention of restoring habitat for coastal California gnatcatcher. The plan shall include a full description of microhabitat conditions necessary	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 4.4-2 (cont.)	for target vegetation species, seed germination and planting requirements, a description of the supplemental irrigation system, if needed to support site restoration, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria, and monitoring requirements, as well as measures to ensure long-term sustainability. Restoration sites shall be monitored for a period of at least three years to track mitigation success and identify needed adjustments to the restoration program. Plant survival and growth shall be recorded at the same time each year and reported to CDFG on an annual basis using survival and percentage cover as a metric of success. Restored areas shall be considered mature when they achieve 50 percent coverage by native plant species. The mitigation plan shall apply to portions of the project alignment that support restored coastal sage scrub habitat (e.g. at the proposed subtransmission alignment). At a minimum, the mitigation plan shall provide: – The location of mitigation sites that are selected from suitable lands in the in the local project vicinity; – A description of native vegetation to be planted or seeded and an estimation of the density and coverage of the final planted areas; – Site preparation measures that will be employed to encourage vegetation establishment, including the need for supplemental irrigation, erosion control, or other measures as appropriate; – Measures that would be employed to discourage site invasion by non-native species, for example, mowing, weeding, and/or herbicide application; – The source of plantings or seeds that are used in support of site restoration, with a preference for local plant stock wherever possible; – A schedule for maintaining and monitoring restored areas to include the number of scheduled site visits, actions that will be taken on each site visit, contingency measures to respond to site degradation, need for replanting, invasion by weeds, or erosion; – The restoration effort shall be considered successful when plant cover reaches 50 percent, or is at least comparable to vegetation cover in disturbed areas, and plants are self-sustaining without supplemental water for a period of at least two years. Annual monitoring reports shall be prepared to document site progress and measures that were implemented during the prior year. Reports shall be submitted to CDFG and USFWS for review and approval.			
Impact 4.4-3: Construction activities may impact common or protected nesting migratory birds. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-3:** SCE and/or its contractors shall implement the following measures to avoid impacts on nesting raptors and other protected birds for construction activities that are scheduled during the breeding season (February 1 through August 31): No more than two weeks before construction within each new construction area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction sites. If active nests are not identified, no further action is necessary. If active nests are identified, a no-disturbance buffer shall be created around active raptor nests and nests of other special-status birds during the breeding season, or until it is determined that all young have fledged. Typical buffers are 300 to 500 feet for raptors and 150 to 250 feet for other nesting birds (e.g., waterfowl and songbirds), depending upon species. The size of these buffer zones and types of construction activities that are allowed in these areas could be further modified during construction in coordination with CDFG and shall be based on existing and anticipated levels of noise and disturbance.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Within two weeks of construction activity near all potential nesting habitat.
Impact 4.4-4: Operation of new transmission lines could impact raptors as a result of electrocution or collision. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-4:** SCE shall follow APLIC guidelines for avian protection on powerlines. SCE and/or its contractors shall use current guidelines to reduce bird mortality from interactions with powerlines. The APLIC (2005) and USFWS recommend the following: • Provide 60-inch minimum horizontal separation between energized conductors or energized conductors and grounded hardware; • Insulate hardware or conductors against simultaneous contact if adequate spacing is not possible, and; • Use pole designs that minimize impacts to birds.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During installation of conductors, poles, and power lines.
Impact 4.4-5: Construction of the proposed subtransmission alignment could impact designated critical habitat for coastal California gnatcatcher. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-5:** Implementation of Mitigation Measure 4.4-2a and 4.4-2b.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to ground disturbance and other construction activities.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Impact 4.4-6: Construction activities could impact jurisdictional waters of the United States and waters of the State, including drainages and seasonal wetlands. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-6a:** SCE and/or its contractors shall through project design, avoid and minimize impacts to jurisdictional waters of the U.S. and waters of the State to the maximum extent possible. This includes minimizing the footprint during construction of poles for the proposed subtransmission line and spanning drainages that occur within the alignment.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
	Mitigation Measure 4.4-6b: Where jurisdictional wetlands and other waters cannot be avoided, to offset temporary and permanent impacts that occur as a result of the project, restoration, enhancement or compensatory mitigation shall be provided through the following mechanisms: • To compensate for wetland impacts from the Proposed Presidential Substation, wetland enhancement and/or restoration shall be performed at a suitable off-site drainage or stream that is suitable to CDFG, RWQCB, and the Corps. Wetland mitigation and/or enhancement shall be provided at a minimum 2:1 replacement ratio in one of several nearby unnamed intermittent drainages to offset wetland losses. • If temporary impacts are anticipated to wetlands, a Wetland Mitigation and Monitoring Plan shall be developed by a qualified biologist or wetland scientist in coordination with CDFG, RWQCB and the Corps that details mitigation and monitoring obligations for temporary impacts to wetlands and other waters as a result of construction activities. The Plan shall quantify the total acreage lost, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project at the ratios described above. The Plan shall be submitted to the appropriate regulatory agencies for approval. The Plan and documentation of such agency approval shall be submitted to the CPUC prior to construction.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 4.4-8: Construction activities associated with Alternative 1 could result in adverse impacts to special-status plants species in portion of the alignment located north of the proposed Presidential Substation site. *Less than significant with mitigation* (Class II).[2]	**Mitigation Measure 4.4-8a:** In portions of Alternative Subtransmission Alignment 1 that have not been surveyed for special-status plants, SCE and/or its contractors shall complete focused plant surveys following CDFG and USFWS special-status plant survey guidelines. Surveys shall document the location, extent, and size of rare plant populations in the study area for each project component, and shall be used to inform the planned avoidance of special-status plant populations whenever possible. Based on focused plant survey findings, to the extent feasible, the final project design shall minimize impacts on known special-status plant populations within and adjacent to the construction footprints, with complete avoidance of any federal or State-listed plant species. SCE and/or its contractors shall design facilities to avoid sensitive plant populations whenever possible. Exclusion fencing shall be installed and maintained during construction around sensitive plant populations with as large a buffer as possible to minimize the potential for direct and indirect impacts.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
	Mitigation Measure 4.4-8b: Where avoidance of non-listed plant species is not feasible, SCE and/or its contractors shall compensate for the loss through plant salvage and replanting, as follows: A qualified ecologist shall develop a Restoration and Mitigation Plan according to CDFG guidelines and in coordination with CDFG. At minimum, the plan shall include collection of complete plants or reproductive structures (as appropriate) from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, proposed restoration techniques for temporarily disturbed occurrences, an assessment of potential transplant and enhancement sites, a description of performance criteria, and a monitoring program to follow the progress of transplanted individuals.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Impact 4.4-9: Construction activities associated with Alternative Subtransmission Alignment 2 could result in less than significant impacts to least Bell's vireo, a federal and State listed Endangered species. *Less than significant with mitigation* (Class II)[3]	**Mitigation Measure 4.4-9:** SCE and/or its contractors shall design Alternative Subtransmission Alignment 2 to avoid impacts to riparian habitat, with poles located outside of riparian corridors whenever feasible. If impacts to riparian habitat occur, compensatory shall be required as described in Mitigation Measure 4.4-6b. Additionally, in the absence of a focused assessment to document the presence or absence of least Bell's vireo, this species shall be presumed present and construction activities near the identified drainage shall occur outside the February 1 through August 31 breeding season described in Mitigation Measure 4.4-3. If SCE plans to locate facilities within 250 feet of riparian habitat at this location during the least Bell's vireo breeding season, a habitat assessment for least Bell's vireo shall be performed at this location and findings coordinated with the USFWS to determine the need for the full eight survey protocol. If least Bell's vireo are identified during surveys, construction activities at this location would occur outside the breeding season to avoid impacts to this species.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.

[2] Impact 4.4-8 and Mitigation Measures 4.4-8 a and b were included in the Draft EIR but accidentally omitted in the Draft EIR MMRCP Section – the addition in the Final EIR is a typographical correction and does not represent a new impact or mitigation.

[3] Impact 4.4-9 and Mitigation Measure 4.4-9 were included in the Draft EIR but accidentally omitted in the Draft EIR MMRCP Section – the addition in the Final EIR is a typographical correction and does not represent a new impact or mitigation.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources				
Impact 4.5-1: Project construction could cause an adverse change in the significance of a historical resource [inclusive of archaeological resources] which is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historic resources. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.5-1:** A qualified archaeologist shall be retained to serve as lead archaeologist and shall prepare and implement a Cultural Resources Treatment and Discovery Plan prior to issuance of a grading permit. The Cultural Resources Treatment and Discovery Plan shall address the implementation of protective measures (as detailed in APMs CUL-2 through CUL-5), archaeological monitoring, and procedures for discovery of cultural resources. The Cultural Resources Treatment and Discovery Plan shall provide detailed plans for data recovery for those components of eligible resource CA-VEN-744 that cannot be avoided during project implementation, and for the capping of those portions of site CA-VEN-744 that may be indirectly impacted. The plan shall also address the creation of Environmentally Sensitive Areas within sites CA-VEN-744 and CA-VEN-1571. The Cultural Resources Treatment and Discovery Plan shall also state that if significant portions of either site are encountered during project implementation outside of protected areas, Proposed Project redesign should be considered in order to avoid impacts to significant areas. If avoidance is infeasible, then data recovery shall be implemented. The Cultural Resources Treatment and Discovery Plan shall detail the duration and locations of archaeological and Native American monitoring during project implementation and shall provide for discretionary modifications to monitoring procedures by the lead archaeologist based on observations made by the monitor as construction progresses. The Cultural Resources Treatment and Discovery Plan shall also create measures for the accidental discovery of archaeological resources during project implementation. Avoidance shall be the preferred means of avoiding impacts to cultural resources. The Cultural Resources Treatment and Discovery Plan shall set forth detailed procedures for data recovery in the event that resources cannot be avoided.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to issuing a grading permit.
Impact 4.5-2: Project construction could adversely impact a unique archaeological resource. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.5-2a:** Prior to issuance of a grading permit, an archaeological monitor shall be retained by SCE and/or its contractors to monitor all ground-disturbing activities, including grading, excavation, vegetation clearance and grubbing, and implementation of cultural resources protective measures (i.e. site capping, pad construction). The procedures for monitoring shall be outlined in the Cultural Resources Treatment and Discovery Plan as described in Mitigation Measure 4.5-1, and shall include provisions for discretionary modifications to monitoring procedures by the lead archaeologist based on observations made by the monitor as construction progresses. The monitor shall be a qualified archaeologist and shall work under the supervision of an archaeologist who meets the Secretary of the Interior's professional qualification standards for archaeology. In the event that cultural resources are unearthed during ground-disturbing activities, the archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find so that the find can be evaluated. Due to the sensitivity of the project area for Native American resources, at least one Native American monitor shall also monitor ground-disturbing activities in the project area, including the implementation of protective measures and data recovery. Selection of monitors shall be made from the Native American Heritage Commission list provided for the Project.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to issuing a grading permit and during construction activities.
	Mitigation Measure 4.5-2b: If archaeological resources are encountered at any point during Proposed Project implementation, SCE and/or its contractors shall cease all activity within 50 feet of the find until the find can be evaluated by a qualified archaeologist. If the archaeologist determines that the resources may be significant, and if avoidance is determined to be infeasible, the archaeologist shall notify the lead agency and shall follow procedures outlined in the Cultural Resources Treatment and Discovery Plan (Mitigation Measure 4.5-1), in consultation with the lead agency and with appropriate Native American representatives (if the resources are prehistoric or Native American in nature).	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
Impact 4.5-3: The project could adversely affect unidentified paleontological resources. Less than significant with mitigation (Class II)	**Mitigation Measure 4.5-3:** Applicant Proposed Measures PAL-01 and PAL-02 shall be implemented for all paleontologically sensitive portions of the project area. The Paleontological Mitigation Plan, as described in Applicant Proposed Measure PAL-01, shall be based on prior paleontological evaluations, shall identify paleontologically sensitive formations within the project area, and shall address the locations of and procedures for paleontological resources monitoring, including the identification of specific paleontological monitoring locations; microscopic examination of samples where applicable; the evaluation, recovery, identification, and curation of fossils; and the preparation of a final mitigation report. All earth moving activities within those formations identified as sensitive within the Paleontological Mitigation Plan shall be monitored on a full-time basis, unless the project paleontologist determines that sediments are previously disturbed or there is no reason to continue monitoring in a particular area due to other depositional factors, which would make fossil preservation unlikely or deemed scientifically insignificant. In the event fossils are exposed during earth moving, construction activities shall be redirected to other work areas until the procedures outlined in the Paleontological Mitigation Plan have been implemented or the paleontologist determines work can resume in the vicinity of the find.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Cultural Resources (cont.)				
Impact 4.5-4: Project construction could result in damage to previously unidentified human remains. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.5-4:** If human remains are uncovered during construction, SCE and/or its contractors shall immediately halt all work in the vicinity of the find, contact the Ventura County Coroner to evaluate the remains, and follow the procedures and protocols set forth in §15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, SCE shall contact the NAHC, in accordance with Health and Safety Code §7050.5, subdivision (c), and PRC5097.98 (as amended by AB 2641).	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.
Impact 4.5-5: Construction of Alternative Subtransmission Alignment 1 could adversely impact a unique archaeological resource. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.5-5:** The portion of any alternative subtransmission or distribution alignment ~~Alternative Subtransmission Alignment 1~~ that has not been subject to archaeological survey shall be surveyed prior to any ground-disturbing activities. If significant cultural resources are identified, the procedures described in Mitigation Measure 4.5-2b shall be implemented.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction activities.
Geology, Soils, Seismicity, and Mineral Resources				
No Impacts	No Mitigations	N/A	N/A	N/A
Greenhouse Gas Emissions				
Impact 4.7-2: The Proposed Project could conflict with CARB's Climate Change Scoping Plan. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.7-2:** SCE shall ensure that the circuit breakers installed at the proposed Presidential Substation (Proposed Project), or Royal and Potrero substations (System Alternative A), have a guaranteed SF6 annual leak rate of no more than 0.5 percent by volume. SCE shall provide CPUC with documentation of compliance, such as specification sheets, prior to installation of the circuit breakers. In addition, SCE shall annually monitor the SF6-containing circuit breakers at the ~~proposed Presidential Substation~~ applicable substations for the detection and repair of leaks.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to installation of circuit breakers and annual monitoring of the SF6-containing circuit breakers.
Hazards and Hazardous Materials				
Impact 4.8-1: Construction, operations, and maintenance activities would require the use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment through routine transport and use or accidental release. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-1a:** SCE and/or its contractors shall implement BMPs including but not limited to the following: • Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction; • Avoid overtopping construction and maintenance equipment fuel gas tanks; • Use tarps and adsorbent pads under vehicles when refueling to contain and capture any spilled fuel; • During routine maintenance of construction and operations equipment, properly contain and remove grease and oils; and • Properly dispose of discarded containers of fuels and other chemicals.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
	Mitigation Measure 4.8-1b: SCE and/or its contractors shall prepare a Hazardous Substance Control and Emergency Response Plan and implement it during construction, operations, and maintenance to ensure compliance with all applicable federal, State, and local laws and guidelines regarding the handling of hazardous materials. The plan shall prescribe hazardous material handling procedures to reduce the potential for a spill during construction, or exposure of the workers or public to hazardous materials. The plan shall also include a discussion of appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. The plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. • *Hazardous Materials and Hazardous Waste Handling:* A project operations-specific hazardous materials management and hazardous waste management program shall be developed prior to construction of proposed Presidential Substation project. The program shall outline proper hazardous materials use, storage, and disposal requirements, as well as hazardous waste management procedures. The program shall identify types of hazardous materials to be used at the proposed Presidential Substation project and the types of wastes that would be generated. All project personnel shall be provided with project-specific training. This program shall be developed to ensure that all hazardous materials and wastes are handled in a safe and environmentally sound manner. Employees handling wastes would receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and Treatment, Storage, and Disposal Facility training in accordance with OSHA Hazard Communication Standard. • *Transport of Hazardous Materials:* Containers used to store hazardous materials shall be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used shall be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter shall be selected to comply with U.S. Department of Transportation and Caltrans regulations.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hazards and Hazardous Materials (cont.)				
Impact 4.8-1 (cont.)	• *Emergency Release Response Procedures:* An Operations Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to Substation construction activities. It would prescribe hazardous materials handling procedures for reducing the potential for a spill and would include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled, would be immediately reported to the applicable agencies if the spill enters a storm drain, if the spill migrates from the site, or if the spill causes injury to a person or threatens injury to public health. The plan shall identify and make all personnel aware of the local, State, and federal emergency response reporting guidelines.			
	Mitigation Measure 4.8-1c: SCE and/or its contractors shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction, operations, and maintenance. The plan shall include information on the appropriate personal protective equipment to be used during construction, operations, and maintenance. The plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
	Mitigation Measure 4.8-1d: SCE and/or its contractors shall ensure that oil-absorbent material, tarps, and storage drums shall be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept at the project staging areas and adjacent to all areas of work, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substance Control and Emergency Response Plan (see Mitigation Measure 4.8-1b), which shall be implemented during construction operations, and maintenance.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
	Mitigation Measure 4.8-1e: SCE shall prepare and submit a Hazardous Materials Business Plan for the proposed Presidential Substation project. The required documentation shall be submitted to the Ventura County Department of Environmental Health and the CPUC. The Hazardous Materials Business Plan would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
Impact 4.8-2: Project activities could release previously unidentified hazardous materials into the environment. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-2:** SCE's Hazardous Substance Control and Emergency Response Plan (as required under Mitigation Measure 4.8-1b) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers local and State agencies and primary, secondary, and final cleanup procedures. The Hazardous Substance Control and Emergency Response Construction Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction of the Proposed Project
Impact 4.8-3: Project activities could release hazardous materials within the vicinity of an existing day care facility. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-3:** Implement Mitigation Measures 4.8-1a through 4.8-1e, and 4.8-2.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.
Impact 4.8-4: The Proposed Project could result in a safety hazard for people working in the project area because a nearby private airstrip. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-4:** SCE shall provide written notification to the Ventura County Sheriff Department and the land owner of the Tierra Rejada Valley landing strip stating when the new subtransmission line and poles would be erected. SCE shall also provide the Sheriff Department and the landing strip owner with recent aerial photos or topographic maps clearly showing the location of the new lines and poles. The photos or maps shall also indicate the heights of the poles and conductors. SCE shall provide documentation of compliance to the CPUC.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and installation of new subtransmission lines and poles.
Impact 4.8-5: Construction of the Proposed Project could interfere with an emergency response or evacuation plan. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-5:** Implement Mitigation Measure 4.15-1b.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction of the Proposed Project.
Impact 4.8-6: Construction and maintenance-related activities could ignite dry vegetation and start a fire. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.8-6:** SCE and/or its contractors shall have water tanks and/or water trucks sited/available at active project sites for fire protection. All construction and maintenance vehicles shall have fire suppression equipment. Construction personnel shall be required to park vehicles away from dry vegetation. Prior to construction, SCE and its contractors shall contact and coordinate with the California Department of Forestry (CalFire) and applicable local fire departments (i.e., Ventura County) to determine the appropriate amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks if water trucks are not used. SCE shall submit verification of its consultation with CalFire and the local fire departments to the CPUC.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and maintenance activities.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Hydrology and Water Quality				
Impact 4.9-1: Construction and maintenance activities associated with the Proposed Project could result in increased erosion and sedimentation and/or pollutant (e.g., fuels and lubricants) loading to surface waters, which could increase turbidity, suspended solids, settleable solids, or otherwise degrade water quality. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.9-1:** For all segments of new or improved access roads that would be within 300 feet of an existing surface water channel (i.e., one that has a distinct bed and banks, including irrigation ditches where no berm/levee is currently in place) and traverse a ground slope greater than two percent, the following protective measures shall be adhered to and/or installed: • All access roads shall be out-sloped; • In-board ditches may be used to control/convey water seepage from cut slopes. If used, in-board ditches shall be lined with rock rip-rap and (the slope shall not exceed 6 percent); • Cross-drains (road surface drainage, e.g., waterbars, rolling dips, or channel drains) shall be installed at intervals based upon the finished road slope: road slope 5 percent or less, cross-drain spacing shall be 150 feet; road slope 6 to 15 percent, cross-drain spacing shall be 100 feet; 16 to 20 percent, cross-drain spacing shall be 75 feet; and 21 to 25 percent, cross-drain spacing shall be 50 feet; • Energy dissipation features (e.g., rock rip-rap, or a rock-filled container) shall be installed at all cross-drain outlets; and • No new or improved road segments with finished slopes greater than 25 percent.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to construction and maintenance activities.
Impact 4.9-2: Dewatering during Project construction activities could release previously contaminated groundwater to surface water bodies and/or increase sediment loading to local surface water channels through overland discharge and subsequent erosion, both processes could degrade water quality in receiving surface waters. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.9-2:** Regarding dewatering activities and discharges (if necessary), the following measures shall be implemented as part of Proposed Project construction: • If degraded soil or groundwater is encountered during excavation (e.g., there is an obvious sheen, odor, or unnatural color to the soil or groundwater), SCE and/or its contractor shall excavate, segregate, test, and dispose of degraded soil or groundwater in accordance with State hazardous waste disposal requirements. All dewatering activities shall, where feasible, ultimately discharge to the land surface in the vicinity of the particular installation or construction site. The discharges shall be contained, such that the water is allowed to infiltrate back into the soil (and eventually to the groundwater table) and the potential for inducing erosion and subsequent sediment delivery to nearby surface waterways is eliminated. Further, the holding tank or structure shall be protected from the introduction of pollutants (e.g., oil or fuel contamination from nearby equipment). Concerning such activities, SCE shall apply and comply with the provisions of SWRCB Order 2003-0003-DWQ, including develop and submit to the LARWQCB a discharge monitoring plan. • If discharging to a community sewer system is necessary, SCE shall discharge to a community sewer system that flows to a wastewater treatment plant. Prior to discharging, SCE shall inform the responsible organization or municipality and present them with a description of and plan for the anticipated discharge. SCE shall comply with any specific requirements that the responsible organization or municipality may have. If discharging to surface waters (including to storm drains) would be necessary, SCE shall obtain and comply with the provisions of the LARWQCB Dewatering General Permit. SCE shall perform a reasonable potential analysis using a representative sample(s) of the groundwater to be discharged; this shall include analyzing the sample(s) for the constituents listed in the LARWQCB Dewatering General Permit, including TDS and nitrate. Further, the sample(s) shall be compared to the screening criteria listed in the LARWQCB Dewatering General Permit and the Basin Plan, and it shall be demonstrated that the discharge would not exceed any of the applicable water quality criteria or objectives. If necessary, SCE shall develop and submit to the LARWQCB a treatment plan and design. • SCE shall provide to the CPUC proof of compliance with LARWQCB plans and permits prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.
Impact 4.9-3: Installation of the proposed Presidential Substation would alter the local drainage pattern, potentially resulting in substantial on- or off-site erosion or sedimentation, and/or substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.9-3:** The following storm water quality control measures and BMPs shall be implemented at the proposed Presidential Substation site (see Appendix D for the related worksheet and calculations): • SCE shall implement a Retention BMP(s) (as defined in the Ventura County TGM [2010]) with a design volume of approximately 0.006 acre-feet. The drainage area to this feature shall comprise at least 0.10 acres of the proposed impervious surface area. This BMP shall be selected, designed, and implemented according to the guidance and requirements summarized in the Ventura County MS4 Permit and the Ventura County TGM (2010). Alternatively, SCE shall demonstrate that the proposed storm water infiltration swale, or modifications thereto, would meet these mitigation requirements. • SCE shall implement a Treatment Control BMP(s) (as defined in the Ventura County TGM [2010]) with a design volume of approximately 0.056 acre-feet. The drainage area to this feature shall comprise at least the remaining 5.3 acres of the proposed Presidential substation site (i.e., the residual drainage area not captured by the Retention BMP(s)). This BMP shall be selected, designed, and implemented according to the guidance and requirements summarized in the Ventura County MS4 Permit and the Ventura County TGM (2010). Alternatively, SCE shall demonstrate that the proposed storm water infiltration swale, or modifications thereto, would meet these mitigation requirements.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction and operation of the Proposed Project.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Land Use and Planning				
No Impacts	No Mitigations	N/A	N/A	N/A
Noise				
Impact 4.11-1: Construction activities would generate noise levels in unincorporated Ventura County that would exceed Ventura County construction noise threshold criteria. *Significant unavoidable* (Class I)	**Mitigation Measure 4.11-1a**: SCE and/or its contractors shall develop a Construction Noise Reduction Plan. The Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities. The Plan shall include, but not be limited to, the following measures for daytime construction activities: • Publish and distribute to the potentially affected community within 300 feet, a "Hot Line" telephone number or pager number, which shall be attended during active construction working hours, for use by the public to register complaints. All complaints shall be logged noting date, time, complainants' name, nature of complaint, and any corrective action taken. • All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations. • Maximize physical separation, as far as practicable, between noise sources (construction equipment) and noise receptors. Separation may be achieved by providing enclosures for stationary items of equipment and noise barriers around particularly noisy areas at the project sites and by locating stationary equipment to minimize noise impacts on the community. • Utilize construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to or around noisy equipment associated with access road construction, pole installation and removal, and underground trenching for distribution line and fiber optic cable in the immediate vicinity (i.e., within 200 feet) of sensitive receptors. Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield. Shields used during linear construction activities shall be readily removable and moveable so that they may be repositioned, as necessary, to provide noise abatement for construction activities located near residential receptors.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.
Impact 4.11-1 (cont.)	**Mitigation Measure 4.11-1b:** The Construction Noise Reduction Plan required by Mitigation Measure 4.11-1a shall include a nighttime noise and nuisance reduction strategy in the event that nighttime construction activity is determined to be necessary within 1,000 feet of sensitive receptors. The strategy shall include a set of site-specific noise attenuation measures that apply state of the art noise reduction technology to ensure that nighttime construction noise levels and associated nuisances are reduced to the extent feasible. The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be included in the Construction Noise Reduction Plan. • Plan construction activities to minimize the amount of nighttime construction. • Offer temporary relocation of residents within 200 feet of nighttime construction activities. • Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., auger rigs, bore rigs, generators, pumps, etc.). • Install temporary noise barriers that block the line of sight between nighttime activities and the closest residences within 1,000 feet. The notification requirements identified in Mitigation Measure 4.11-1a shall be extended to include residences within 1,000 feet of pending nighttime construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.
Impact 4.11-4: Construction activities could increase ambient noise levels in Thousand Oaks and Simi Valley. *Less than Significant with Mitigation* (Class II)	**Mitigation Measure 4.11-4:** Implement Mitigation Measures 4.11-1a and 4.11-1b.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During construction activities.
Population and Housing				
No Impacts	No Mitigations	N/A	N/A	N/A
Public Services				
No Impacts	No Mitigations	N/A	N/A	N/A
Recreation				
No Impacts	No Mitigations	N/A	N/A	N/A

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Transportation and Traffic				
Impact 4.15-1: Project construction would temporarily increase traffic volumes on roadways in the study area, and would potentially conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.15-1a:** SCE shall obtain and comply with local road encroachment permits for public roads that are crossed by the proposed or alternative subtransmission and distribution alignments. SCE shall also notify the owner of any private road east of Hwy 23 that would be crossed by the proposed subtransmission alignment (Proposed Project), or the owner of any private road that would be crossed by alternative distribution alignments (System Alternative A) ,regarding short-term construction activities at road crossings. Copies of all encroachment permits for those specific construction activities that would involve the crossing of a public road, and evidence of private property owner notification for those construction activities that would involve the crossing of a private road ~~east of Hwy 23~~ shall be provided to the CPUC prior to the commencement of those specific construction activities.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
	Mitigation Measure 4.15-1b: SCE shall prepare and implement a Traffic Management Plan subject to approval of the appropriate state agency and/or local government(s). The approved Traffic Management Plan and documentation of agency approvals shall be submitted to the CPUC prior to the commencement of construction activities. The plan shall: • Include a discussion of work hours, haul routes, work area delineation, traffic control and flagging; • Identify all access and parking restriction and signage requirements; • Require workers to park personal vehicles at the approved staging area and take only necessary Project vehicles to the work sites; • Lay out plans for notifications and a process for communication with affected residents and landowners prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which road/lanes and access point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints; and • Include plans to coordinate all construction activities with emergency service providers in the area prior to construction to ensure that construction activities and associated lane closures would not significantly affect emergency response vehicles. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times. SCE shall submit verification of its consultation with emergency service providers to the CPUC. • Identify all roadway locations where special construction techniques (e.g., night construction) would be used to minimize impacts to traffic flow. • Limit construction-related truck traffic on State highways to off-peak traffic hours to the extent feasible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
	Mitigation Measure 4.15-1c: The County and SCE shall insure that appropriate warning signs are posted alerting bicyclists to bike lane closures and instructing motorists to share the road with bicyclists. In addition, in order to remove potential roadway hazards to bicyclist in the construction areas the SEC shall ensure that all contract haul trucks are covered to prevent spillage of materials onto haul routes, and that the area adjacent to the Substation site shall be kept free of debris and dirt that may accumulate from entering and exiting trucks by conducting regular sweeping of the project area.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
	Mitigation Measure 4.15-1d: SCE shall coordinate with the appropriate local government departments in Thousand Oaks, Simi Valley, with county agencies such as the Ventura County Public Works Agency, with state agencies such as Caltrans, and with other utility districts and agencies as appropriate, regarding the timing of construction projects that would occur near the Proposed Project. The Ventura County Public Works Agency reviews environmental documents to ensure that all individual and cumulative adverse impacts to the Regional Road Network and County-maintained local roads have been adequately evaluated and mitigated to insignificant levels. SCE shall submit verification of its coordination to the CPUC. This multi-agency coordination, and implementation of Mitigation Measures 4.15-1a and 4.15-1b, would ensure that the cumulative effect of simultaneous construction activities in overlapping areas would be minimized.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Impact 4.15-3: Project construction would increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.15-3:** Implement Mitigation Measure 4.15-1a, Mitigation Measure 4.15-1b and Mitigation Measure 4.15-1c.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Impact 4.15-4: The Proposed Project would not result in inadequate emergency access. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.15-4:** Implement Mitigation Measure 4.15-1b.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.

TABLE C-1 (CONTINUED)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE PRESIDENTIAL SUBSTATION PROJECT AND ALTERNATIVES

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Transportation and Traffic (cont.)				
Impact 4.15-5: The Proposed Project would temporarily conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, and would temporarily decrease the performance or safety of such facilities. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.15-5:** Implement Mitigation Measure 4.15-1c.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities.
Utilities and Service Systems				
No Impacts	No Mitigations	N/A	N/A	N/A