

1 **Executive Summary**

2 **Introduction and Project Overview**

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4
5 Southern California Gas Company (the applicant) provides natural gas services to approximately six
6 million customers in Southern California, and operates four storage fields to meet customer demand. The
7 applicant's Aliso Canyon Natural Gas Storage Field (storage field), which is located in Los Angeles
8 County, has an inventory of approximately 165 billion cubic feet (cf) and is one of the largest in the
9 United States. It has a withdrawal capacity of up to 1.875 billion cf per day and an injection capacity of
10 up to 300 million cf per day. Injection at the storage field is provided by three turbine-driven
11 compressors, which are powered by natural gas. Figure E-1 shows the location of the proposed project
12 and surrounding areas.

13
14 The applicant filed an application on September 28, 2009 (A.09-09-020) with the California Public
15 Utilities Commission (CPUC) to amend its Certificate of Public Convenience and Necessity for the
16 construction and operation of the Aliso Canyon Turbine Replacement Project (the proposed project). The
17 application was deemed complete on March 24, 2010. The purpose of the proposed project is to comply
18 with the terms of a settlement agreement implemented by CPUC decision D.08-12-020 (provided in
19 Appendix A of this environmental impact report [EIR]) while maintaining or improving the reliability and
20 efficiency of storage facility operations.

21 **Objectives of the Proposed Project**

22
23
24 The two basic objectives of the proposed project are to:

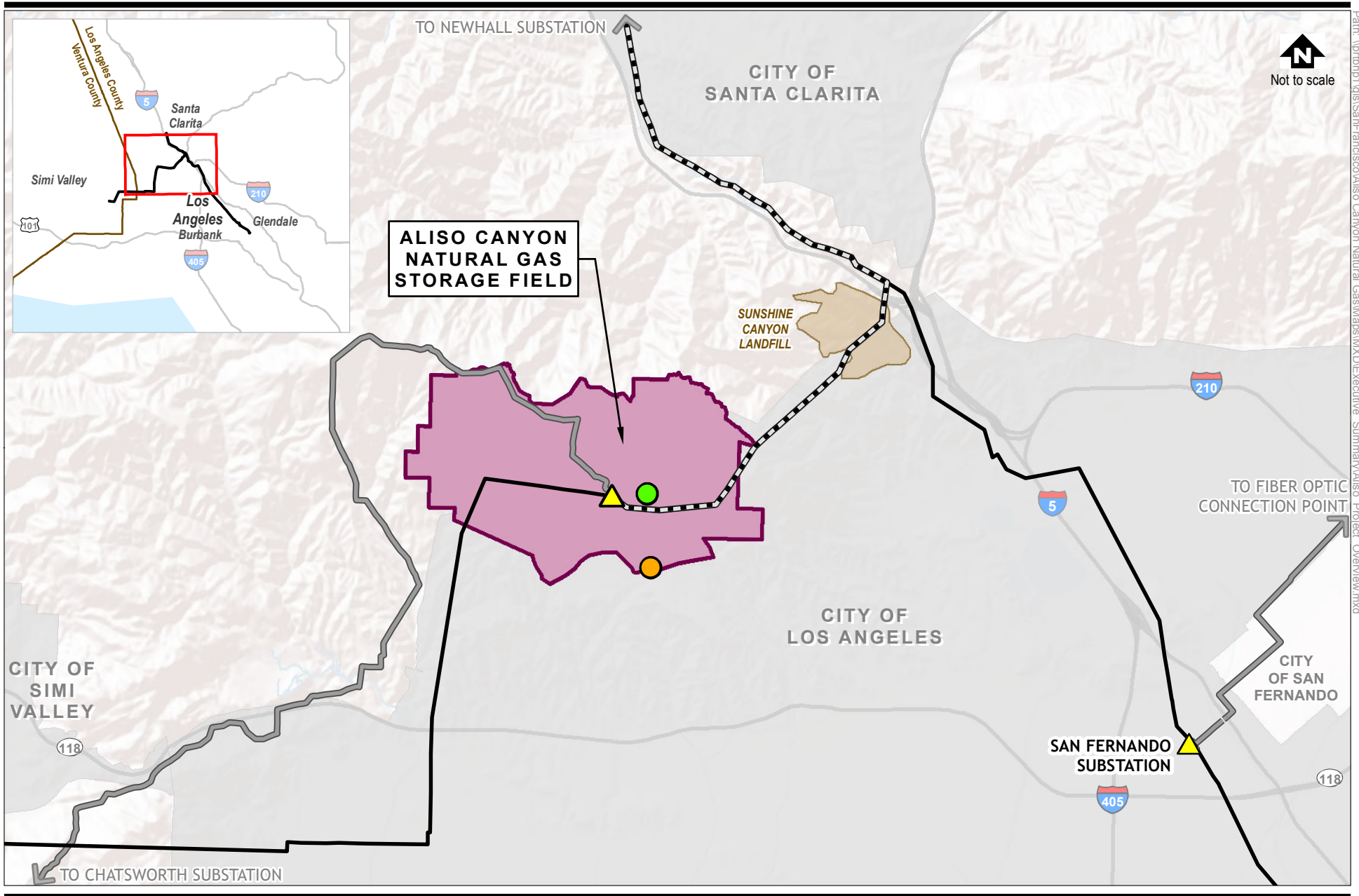
- 25
26 1. Comply with the terms of the Settlement Agreement implemented by CPUC decision D.08-12-
27 020; and
- 28
29 2. Maintain or improve the reliability and efficiency of storage facility operations at the Aliso
30 Canyon Natural Gas Storage Field.

31 **Settlement Agreement**

32 The applicant is required to implement the proposed project to meet the terms of Phase 1 of the
33 Settlement Agreement between the applicant and parties to the 2009 Biennial Cost Allocation Proceeding
34 approved by the CPUC (Appendix A). The Settlement Agreement requires that the applicant increase the
35 overall injection capacity at the field by approximately 145 million cf per day.

36
37 The proposed compressors would be capable of increasing the storage field's natural-gas injection
38 capacity from approximately 300 million cf per day to approximately 450 million cf per day. The storage
39 field's withdrawal capacity would not change.

40
41 The proposed compressors would also improve natural gas service reliability and efficiency. The existing
42 gas turbine-driven compressors at the storage field were installed in 1971. Gas turbines alter compressor
43 speed by varying fuel input. The new variable-speed motors that would be installed as part of the
44 proposed project have the ability to alter compressor speed as gas pressure ratios and flow rates change
45 more precisely than the existing gas turbines. Hence, the new motors would be capable of better matching
46 operating pressures at the storage field and would be more energy efficient.



- Existing 66-kV Subtransmission Line
- 66-kV Subtransmission Line Reconductoring Route & Telecommunications Line (Proposed)
- Telecommunications Line (Proposed)
- ▲ Natural Substation (Proposed)
- Guardhouse Relocation and Entry Road Widening (Proposed)
- Central Compressor Station (Proposed)

Figure E-1

Vicinity Map and Overview of the Proposed Project

Approach to Environmental Review

As lead agency, the CPUC must determine through the California Environmental Quality Act (CEQA) process whether the proposed project would result in significant impacts to the environment, and whether those impacts could be avoided, eliminated, compensated for, or reduced to less than significant levels. This EIR will become part of a body of evidence that the CPUC will use in deciding whether to approve Southern California Gas Company's application.

The CPUC is seeking comments on this Draft EIR. The CPUC will respond to comments on the Draft EIR, conduct additional analysis as necessary, and modify mitigation measures as appropriate. If the CPUC approves the project, CPUC staff would closely monitor the applicant's compliance with the requirements imposed by the mitigation measures.

Description of the Proposed Project

The construction of the proposed project would expand the storage field's natural-gas injection capacity from approximately 300 million cubic feet (cf) per day to approximately 450 million cf per day. As part of the proposed project, the applicant would construct and operate the following project components at the storage field:

- Central Compressor Station with three new electric-driven, variable-speed compressors and pipelines to connect the station to existing facilities;
- 12-kilovolt (kV) Plant Power Line to supply the Central Compressor Station with power;
- Office and crew-shift buildings; and
- Guardhouse on a widened segment of the existing entry road into the storage field.¹

The applicant would decommission and remove the:

- Existing compressor station and its three gas turbine-driven compressors; and
- Existing main office and crew-shift buildings.

To power the proposed electric-driven, variable-speed compressors, SCE would:

- Construct and operate a 56-megavolt-ampere (MVA), 66/12-kV substation (the Natural Substation) on the storage field site;² and
- Reconductor and replace towers and poles along segments of SCE's Chatsworth-MacNeil-Newhall-San Fernando 66-kV Subtransmission Line and MacNeil-Newhall-San Fernando 66-kV Subtransmission Line in the proposed project area.

¹ The existing guardhouse at the storage field would not be removed as part of the proposed project.

² The initial build of the Natural Substation would include the installation of two 28 MVA, 66/12-kV transformers. Space would be available for the installation of up to two additional 28 MVA transformers (for a total of 112 MVA) if needed in the future. SCE estimates that 50 megawatts of electricity would be required to meet the increase in electrical demand from operation of the proposed electric-driven compressors.

1 To allow for remote monitoring and operation of the proposed electrical facilities, SCE would:

- 2
- 3 • Install equipment at SCE’s Newhall, Chatsworth, and San Fernando Substations in the proposed
- 4 project area; and
- 5 • Install new fiber optic telecommunications cable in the proposed project area.
- 6

7 In addition, the applicant would apply to the CPUC to enlarge SCE’s existing easement on the storage
8 field site, which would be necessary for SCE to construct and operate the Natural Substation. SCE’s
9 Northern Transmission/Substation Regional Facility at Pardee Substation in Santa Clarita would be used
10 as the primary staging area for the 66-kV subtransmission line reconductoring.

11
12 Construction of the proposed project would take approximately 22 months.

13 14 **Notice of Preparation**

15
16 In accordance with the CEQA Guidelines, the CPUC prepared a Notice of Preparation (NOP) for this
17 EIR. The CPUC circulated the NOP for the proposed project on October 21, 2010, to local, state, and
18 federal agencies, and the State Clearinghouse, opening a 30-day comment period on the scope and content
19 of the EIR and announcing two public scoping meetings. The CPUC held two public meetings in
20 November, 2010, and received six comment letters on the NOP from public agencies and eleven comment
21 letters on the NOP from members of the public.

22 23 **Areas of Potential Controversy**

24
25 Several areas of potential controversy were identified for the proposed project through the public scoping
26 process, including;

- 27
- 28 • Safety of storage field operations, including natural gas injection and withdrawal;
- 29 • Aesthetics;
- 30 • Air Quality;
- 31 • Biological Resources;
- 32 • Cultural Resources;
- 33 • Hazards and Hazardous Materials;
- 34 • Hydrology and Water Quality;
- 35 • Land Use and Planning;
- 36 • Noise;
- 37 • Public Services and Utilities; and
- 38 • Alternatives.
- 39

40 **Less than Significant Impacts (Including Significant Impacts that Can** 41 **Be Mitigated)**

42
43 The EIR addresses all potentially significant environmental impacts identified during the public scoping.
44 The evaluation of potential project impacts resulted in the determination that the following environmental
45 impacts would be less than significant with or without mitigation:

- 46
- 47 • Aesthetics
- 48 • Agricultural and Forestry Resources

- 1 • Air Quality
- 2 • Biological Resources
- 3 • Cultural Resources
- 4 • Geology, Soils, and Mineral Resources
- 5 • Greenhouse Gas Emissions
- 6 • Hazards and Hazardous Materials
- 7 • Hydrology and Water Quality
- 8 • Land Use and Planning
- 9 • Noise
- 10 • Population and Housing
- 11 • Public Services and Utilities
- 12 • Recreation
- 13 • Transportation and Traffic

14
15 The mitigation measures identified to reduce significant impacts to less than significant levels are
16 discussed in Chapter 7, “Mitigation Monitoring Plan” and are summarized at the end of this Executive
17 Summary in Table E-1.
18

19 **Cumulative Impacts and Other CEQA Considerations**

20
21 The CEQA Guidelines require that potential cumulative impacts be assessed by developing either a list of
22 past, present, and probable future projects that would produce related or cumulative effects in
23 combination with the proposed project or a summary of projections contained in adopted general plans or
24 related planning documents. The discussion of cumulative impacts presented in Chapter 6, “Cumulative
25 Impacts and Other CEQA Considerations,” of this EIR describes the potential cumulative impacts for
26 each resource area addressed in Chapter 4, “Environmental Analysis.” An analysis of whether the
27 proposed project would result in growth-inducing impacts or significant and irreversible environmental
28 changes is also presented in Chapter 6.
29

30 **Unavoidable Significant Adverse Impacts**

31
32 Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts,
33 including those that can be reduced through implementation of mitigation measures but nonetheless
34 would still remain significant (i.e., would not be reduced to less than significant levels). No significant
35 and unavoidable environmental impacts were identified for any resource areas in this EIR.
36

37 **Alternatives**

38
39 Alternatives to the proposed project have been identified and evaluated in accordance with CEQA Guidelines.
40 CEQA Guidelines (Section 15126.6[a]) state:

41
42 *An EIR shall describe a reasonable range of alternatives to the project, or to the location of the*
43 *project, which would feasibly attain most of the basic objectives of the project but would avoid or*
44 *substantially lessen any of the significant effects of the project.*
45

46 CEQA Guidelines (Section 15364) define feasibility as:

47
48 *....capable of being accomplished in a successful manner within a reasonable period of time,*
49 *taking into account economic, environmental, legal, social, and technological factors.*

1
2 Alternatives to the proposed project were suggested during the scoping period by the general public and
3 government agencies after the applicant submitted its application to the CPUC. Some of the alternatives
4 reviewed in this report were presented in the applicant's Proponent Environmental Assessment (PEA) and
5 others were identified by the CPUC Energy Division as a result of the agency's independent review. In
6 total, ten alternatives were identified, including a design alternative (non-wires alternative), electrical
7 alternatives, siting alternatives, and routing alternatives (Appendix C, "Alternatives Screening Report").
8

9 **Alternatives Evaluated in this EIR**

10 The alternatives to the proposed project were selected for analysis based on a screening process that
11 considered the following criteria: meets the basic objectives of the proposed project, lessens significant
12 impacts, is feasible, and represents a reasonable range of alternatives. Alternatives were eliminated from
13 consideration if they failed to meet these criteria. Alternatives that were remote or speculative or the
14 effects of which could not be reasonably predicted, were also eliminated. The applicant considered
15 several alternatives to reduce impacts on air quality, biological resources, cultural resources, hazards, and
16 noise. This section briefly describes the alternatives that were selected for further consideration.
17

18 Based on the analysis presented in the EIR, the proposed project and the following three alternatives were
19 retained for further consideration in the EIR:
20

- 21 • Design Alternative (Alternate Compressor Drive Type, a Non-wires Alternative);
- 22 • Routing Alternative A (Telecommunications: Sylmar Substation to San Fernando Substation);
23 and
- 24 • No Project Alternative.

25
26 Appendix C, "Alternatives Screening Report," includes figures showing the proposed project and each
27 alternative, including those that were eliminated from further consideration in this EIR.
28

29 ***Design Alternative (Alternate Compressor Drive Type, a Non-wires Alternative)***

30 Under the Design Alternative, which was proposed in the PEA, new gas turbine-driven compressors with
31 greater capacity than the existing gas turbine-driven compressors would be installed in the proposed
32 Central Compressor Station instead of electric-driven, variable-speed compressors. The gas turbine-
33 driven compressors would combust natural gas for power rather than use electricity. The proposed
34 Natural Substation, 66-kV subtransmission line reconductoring, and telecommunications line installations
35 would not be required for this alternative. Access to the storage field from Sesnon Boulevard would be
36 improved, and the new guardhouse, main office building, and crew-shift building would be constructed as
37 proposed.
38

39 ***Routing Alternative A (Telecommunications: Sylmar Substation to San Fernando 40 Substation)***

41 For this alternative, the proposed telecommunications route from San Fernando Substation east to a fiber
42 optic connection point within the right-of-way of an existing SCE 220-kV subtransmission line corridor
43 would be routed from San Fernando Substation north to a Los Angeles Department of Water and Power
44 substation (Sylmar Substation) instead. Sylmar Substation is located southwest of the intersection of
45 Interstate 5 and Interstate 210. For both the proposed and alternative routes, new fiber optic cable would
46 be installed primarily overhead on existing SCE and Los Angeles Department of Water and Power
47 electrical distribution line structures. Both routes would be approximately 5-miles long and require
48 approximately 1,000 feet of new underground conduit.

1
2 Routing Alternative A was proposed by SCE in response to a request by the CPUC for more specific
3 information about the telecommunications routes during the EIR preparation process. SCE later submitted
4 the route from San Fernando Substation to a fiber optic connection point as the proposed route, and the
5 CPUC chose to consider the original route as an alternative.
6

7 ***No Project Alternative***

8 The No Project Alternative is the circumstance under which the proposed project does not proceed. Under
9 the No Project Alternative, the existing gas turbine–driven compressors would not be replaced at the
10 storage field, and the storage field’s injection capacity would not be increased. Compliance with the terms
11 of the Settlement Agreement would not be achieved (Objective #1), and the reliability and efficiency of
12 storage facility operations would not be maintained or improved (Objective #2).
13

14 The existing gas turbine–driven compressors were installed in 1971. Production of the gas turbines was
15 halted by the manufacturer in the late 1970s and replacement parts are extremely limited. It is anticipated
16 that maintenance issues requiring compressor replacement parts would take longer to address over time,
17 and that the current level of compressor reliability experienced at the storage field would decrease.
18 Therefore, neither of the basic objectives of the proposed project would be achieved under the No Project
19 Alternative.
20

21 ***Environmentally Superior Alternative: Proposed Project with Routing Alternative A***

22 Long-term impacts on coastal California gnatcatcher habitat and other biological resources would be
23 avoided under the Design Alternative, and a number of short-term construction impacts would be avoided
24 or reduced, but the alternative’s air quality and greenhouse gas (GHG) emissions impacts would be both
25 long-term and widespread, impacting resources in addition to those located in proximity to the
26 components of the Design Alternative. Furthermore, while offsets can be purchased for air quality
27 impacts, and offsets may be negotiated for GHG impacts, mitigation through the purchase of offsets is
28 indirect. Direct mitigation for air pollutant and GHG emissions can be difficult to implement and, in some
29 cases, cannot sufficiently reduce impacts.
30

31 With regard to temporary construction noise, Routing Alternative A would be environmentally superior to
32 the proposed project because fewer sensitive receptors would be impacted. During operations, noise
33 impacts would be similar to the proposed project. During construction and operations for all other
34 resource areas, impacts under Routing Alternative A would be similar to those of the propose project.
35 Therefore, because construction noise from Routing Alternative A would impact fewer sensitive noise
36 receptors, and the proposed project would avoid or reduce long-term impacts from air pollutant emissions
37 and result in a net reduction of GHG emissions during operations in comparison to Design Alternative A,
38 the proposed project with Routing Alternative A would be the Environmentally Superior Alternative.
39

40 **Major Conclusions of the Draft EIR**

41
42 No significant and unavoidable adverse environmental impacts have been identified that would result
43 from construction or operation of the proposed project. All of the impacts identified in Chapter 4,
44 “Environmental Analysis,” are either less than significant or, with mitigation, would be reduced to less
45 than significant levels. Among the alternatives considered in this EIR, it was determined that the proposed
46 project with Routing Alternative A would be the Environmentally Superior Alternative.
47

48 **Draft Mitigation Monitoring Plan**

49

- 1 A Draft Mitigation Monitoring Plan for the proposed project is presented in Chapter 7 of this Draft EIR.
- 2 A final Mitigation, Monitoring, Reporting, and Compliance Program will be prepared for the Final EIR
- 3 that incorporates any changes to the proposed project or mitigation measures that are made as a result of
- 4 public review of the Draft EIR and further consideration of the proposed project by the CPUC.

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
4.1 Aesthetics			
<i>Impact AE-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area</i>	APM AE-1: Night Lighting. The applicant and SCE will ensure that construction activities occurring at night will use lighting to protect the safety of the construction workers but orient the lights to minimize their effect on any nearby sensitive receptors. The lighting will be directed downward and shielded to eliminate offsite light spill at times when the lighting might be in use.	Confirm that construction lighting is oriented to minimized effects on nearby sensitive receptors (APM AE-1).	During construction
4.2 Agriculture			
No applicable APMs or mitigation measures.			
4.3 Air Quality			
<i>Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment.</i>	<p>APM AQ-1: Maintain Engines in Good Working Condition. The applicant and SCE will ensure that equipment engines will be maintained in good condition and in proper tune as per the manufacturers' specifications.</p> <p>APM AQ-2: Minimization of Equipment Use. The applicant and SCE will ensure that staff and daily construction activities will be efficiently scheduled to minimize the use of unnecessary/duplicate equipment when possible.</p> <p>APM AQ-3 Minimization of Disturbed Areas. The applicant and SCE will ensure that the amount of area disturbed by clearing, grading, earth moving, or excavation operations is minimized to reduce the amount of fugitive dust that is generated during construction in a manner that meets or exceeds the requirements of the South Coast Air Quality Management District's Rule 43 (Fugitive Dust Regulations).</p> <p>APM AQ-4: Watering Prior to Grading and</p>	<ul style="list-style-type: none"> • Confirm that Regional Clean Air Incentive Market Trading Credits are purchased as specified in MM AQ-2. • See additional requirements for APMs AQ-1 through AQ-7 and MMs AQ-1 and AQ-2. 	Prior to and during construction

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Excavation. The applicant and SCE will ensure that pre-grading/excavation activities will include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) will penetrate sufficiently to minimize fugitive dust during grading activities.</p> <p>APM AQ-5: Vehicle Speed Limits. The applicant will post signs in the storage field along designated travel routes and limiting traffic to 15 miles per hour or less.</p> <p>APM AQ-6: Fugitive Dust from High Winds. During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), the applicant and SCE will ensure that all clearing, grading, earth moving, and excavation operations will be curtailed to the degree necessary to prevent fugitive dust created by onsite activities and operations from being a nuisance or hazard, either offsite or onsite.</p> <p>APM AQ-7: Cleaning of Paved Roads. The applicant and SCE will ensure that paved road surfaces will use vacuum sweeping and/or water flushing to remove buildup of loose material to control dust emissions from travel on paved access roads (including adjacent public streets impacted by construction activities) and paved parking areas.</p> <p>MM AQ-1: Oxides of Nitrogen (NOx) Credits. The emissions of NOx due to construction of the proposed project will be mitigated through the purchase of Regional Clean Air Incentive Market Trading Credits (RTCs) for every pound of NOx emissions in excess of the SCAQMD daily significance threshold of 100 pounds per day.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>The total amount of NOx RTCs to be purchased will be calculated when the construction schedule and operating conditions are finalized. The applicant will purchase and submit the required RTCs to the SCAQMD prior to the start of project construction. The applicant will also track actual daily emissions during construction according to a monitoring plan that includes records of equipment and vehicle usage.</p> <p>MM AQ-2: Tier 3 Off-Road Emissions Standards. All off-road diesel-powered construction equipment greater than 50 horsepower used during reconductoring of the 66-kV subtransmission line will meet Tier 3 off-road emissions standards.</p>		
4.4 Biological Resources			
<p>Impact BR-1: Substantial adverse direct or indirect effect on special status species.</p>	<p>Coastal California Gnatcatcher Habitat (Including Critical Habitat)</p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM AQ-4: Watering Prior to Grading and Excavation. See above.</p> <p>APM BR-2: Designated Work Zones and Sensitive Resource Avoidance. Prior to ground-disturbing activities, the applicant and SCE will ensure that work zones are clearly staked and flagged. Construction work areas will be identified to ensure that construction activities, equipment, and associated activities are confined to designated work zones and areas supporting sensitive resources (special-status plants and wildlife, and high-value habitats, such as wetlands) are avoided.</p> <p>APM BR-3: Post-Construction Restoration for</p>	<ul style="list-style-type: none"> • Ensure that the applicant and SCE conduct preconstruction surveys for wildlife and plant species as specified in APM BR-1. • Ensure that the applicant and SCE conduct protocol-level preconstruction surveys for coastal California gnatcatcher as specified in APM BR-4 and least Bell's vireo and southwestern willow flycatcher as specified in MM BR-8. • Ensure that SCE conducts surveys of vegetation and estimates the total area of intact Venturan Coastal Sage Scrub (MM BR-2) and prepares a 	<p>Prior to, during, and after construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Reconductoring. SCE will ensure that all areas that are temporarily disturbed during 66-kV subtransmission line reconductoring will be restored as close to preconstruction conditions as possible or to the conditions agreed upon between the landowner and SCE following completion of construction of the proposed project.</p> <p>APM BR-4: Preconstruction Gnatcatcher Surveys. The applicant and SCE will ensure that protocol-level pre-construction surveys will be conducted for coastal California gnatcatcher, in project component areas where suitable habitat exists and for all project activities proposed within U.S. Fish and Wildlife Service designated critical habitat in accordance with the U.S. Fish and Wildlife Service Coastal California Gnatcatcher (<i>Polioptila californica californica</i>) Presence/Absence Survey Guidelines, February 28, 1997. In the event that coastal California gnatcatcher are observed in pre-construction surveys, a buffer of 500 feet from any active nest will be flagged and maintained by a biological monitor. Areas of 2 or more contiguous acres of suitable coastal California gnatcatcher habitat will be identified at the time of pre-construction surveys, and work within or near these areas will be performed outside of the breeding and nesting season (coastal California gnatcatcher breeding/nesting season is approximately February 15 through August 30).</p> <p>APM BR-5: Exclusionary Fencing. The applicant and SCE will ensure that exclusionary fencing will be installed around work and laydown/staging areas, where necessary, to prevent inadvertent encroachment into the native</p>	<p>Habitat Restoration Plan for Venturan Coastal Sage Scrub (MM BR-3).</p> <ul style="list-style-type: none"> • Ensure that the applicant and SCE complete formal delineations per USACE protocols as specified in MM BR-5. • Ensure that the applicant and SCE design all transmission structures as specified in MM BR-6 and implement avian protection plans as specified in MM BR-7. • Ensure that the applicant and SCE conduct pre-construction nesting surveys for golden eagle as specified MM BR-9. • Ensure that the applicant and SCE conduct pre-construction surveys for Plummer's mariposa lily and slender mariposa lily as specified MM BR-10. • See above/below for APMs AQ-3, AQ-4, GE-3, and HZ-6. • See additional requirements for APMs BR-1 through BR-8 and MMs BR-1 through BR-11. 	

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>habitat adjacent to areas of impact. Brightly colored, protective construction fencing and/or silt fencing will be erected surrounding the work area where it abuts native habitat prior to the start of construction and/or demolition.</p> <p>APM BR-6: Biological Monitoring. The applicant and SCE will ensure that biological monitoring will be conducted during construction in all areas within 100 feet of native vegetation that has the potential, or is known, to provide habitat for special status species.</p> <p>APM GE-3: Erosion and Sediment Control. See above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>MM BR-1: Trimming of Vegetation. In order to minimize the removal of vegetation in areas of habitat for the coastal California gnatcatcher, for the 66-kV subtransmission line, Telecommunications Route #2, and proposed Natural Substation project areas, SCE will ensure that trimming of all native vegetation, riparian vegetation, and vegetation that provides potential habitat for coastal California gnatcatcher will be performed by a certified arborist or a person with a minimum of 6 years' regional expertise in trimming trees/shrubs in this area and who has worked under a certified arborist.</p> <p>MM BR-2: Minimize Removal of Venturan Coastal Sage Scrub. For the 66-kV subtransmission line, Telecommunications Route #2, and proposed Natural Substation project areas, SCE will minimize the removal of Venturan Coastal Sage Scrub associations,</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>particularly within designated critical habitat for the coastal California gnatcatcher. Prior to construction and for each of these project areas, SCE will:</p> <ol style="list-style-type: none"> 1. Ensure that a survey of vegetation and estimate of the total area of intact Venturan Coastal Sage Scrub is completed by a qualified botanist familiar with this vegetation association. 2. Avoid removal of more than 10 percent of intact Venturan Coastal Sage Scrub within a single project area. "Project Areas" are defined as: <ol style="list-style-type: none"> a. Storage field project components (including the proposed Natural Substation): areas of ground disturbance during construction; b. Access and other roads that would be constructed/modified: 300 linear feet, with a 100-foot buffer on either side of the road; and c. 66-kV line and Telecommunications Route #2: for each pole, a 100-foot radius around the base, plus 100 feet along each extent of the linear ROW beyond the 100-foot radius area. 3. Ensure that areas of intact, contiguous Venturan Coastal Sage Scrub shall not be reduced below a 2-acre threshold. <p>In the event that the applicant wishes to remove more than 10 percent of intact Venturan Coastal Sage Scrub within a single project area, or where intact, contiguous areas of Venturan Coastal</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Sage Scrub may be reduced below a 2-acre threshold, the applicant will compensate for this loss through the restoration and/or creation of Venturan Coastal Sage Scrub habitat per the applicant's Habitat Restoration Plan for Venturan Coastal Sage Scrub, at a minimum ratio of 2:1 (for example, 2 acres of Venturan Coastal Sage Scrub created or restored for every 1 acre impacted).</p> <p>MM BR-3: Habitat Restoration Plan for Venturan Coastal Sage Scrub. Prior to construction of the proposed project, and with the coordination and review of USFWS and CDFG, SCE will prepare a habitat restoration plan for Venturan Coastal Sage Scrub associations for the 66-kV subtransmission line, Telecommunications Route #2, and proposed Natural Substation project areas. The restoration plan will be prepared by a qualified botanist familiar with this vegetation association. Per the requirements of MM BR-2, Venturan Coastal Sage Scrub habitat occurring in these work areas will be identified and quantified; surveys (including vegetation maps) and quantification of Venturan Coastal Sage Scrub habitat will be included in the restoration plan. Restoration will occur at a minimum ratio of 0.5:1 (0.5 acres of Venturan Coastal Sage Scrub created or restored for every 1 acre impacted during project construction), and may be completed by:</p> <ol style="list-style-type: none"> 1. Establishing Venturan Coastal Sage Scrub habitat within the project areas (onsite); 2. Establishing Venturan Coastal Sage Scrub habitat outside the project areas (offsite); or 3. Purchase of credits and/or mitigation lands 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>at a ratio above 0.5:1 from an entity reviewed and approved by the USFWS and/or CDFG.</p> <p>Details of the restoration plan will be finalized pending consultation between SCE, USFWS, and CDFG. For Options 1. and 2. (establishing Venturan Coastal Sage Scrub onsite or offsite), the plan will include the following elements: planting/seeding palettes; monitoring and contingency program; monitoring schedule, including duration and performance criteria (a minimum of 80 percent successful plant establishment after a minimum of three years); and any specific measures that will be required to ensure success of the restoration effort.</p> <p>MM BR-4: Restriction of Vehicular Traffic. The applicant and SCE will ensure that, in all project construction areas, vehicular traffic (including movement of all equipment) is restricted to established access roads indicated by flagging and signage. All access roads that are not otherwise assigned official speed limits will be restricted to a speed limit of a maximum of 20 miles per hour.</p> <p>Special Status Amphibians and Reptiles</p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APMs BR-2, BR-5, and BR-6. See above.</p> <p>APM GE-3: Erosion and Sediment Control. See above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>MM BR-5: Impacts on Hydrologic Features.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Prior to project construction, for all proposed project components in the vicinity of hydrologic features, the applicant and SCE will:</p> <ol style="list-style-type: none"> 1. Complete formal delineations per USACE protocols to confirm and determine the extent of jurisdictional wetlands present in the proposed project areas; 2. Consult with the USACE and CDFG to determine whether CWA Section 404 permits and California Department of Fish and Game Code Section 1600 Streambed Alteration Agreements are necessary for the proposed project, apply for these permits as needed, and determine the area of fill that would require compensation; 3. Commit to compensatory mitigation for any wetland fill per any required permits and in consultation with USACE and CDFG (wetland fill requiring mitigation will be compensated for at a minimum ratio of 0.5:1, or 0.5 acres of wetland creation or restoration for every 1 acre of wetland fill caused by the proposed project); and 4. Ensure that biological monitors establish and maintain a minimum exclusionary buffer of 50 feet from the delineated extent of all jurisdictional wetland features during project construction. <p>Construction of any proposed project component that requires altering, removing, or filling the bed or bank of seasonal drainages, or other jurisdictional or potentially jurisdictional water features, and/or cannot maintain the 50-foot exclusionary buffer, will be performed only when</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>water is not present in the feature.</p> <p style="text-align: center;"><i>Special Status Birds</i></p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM BR-1: Preconstruction Surveys. Prior to construction and activities that may include vegetation clearing, staging and stockpiling, or other activities with the potential to directly or indirectly affect wildlife, the applicant and SCE will ensure that preconstruction surveys are conducted by qualified biologists for sensitive biological resources, including special-status wildlife and special-status plant species, in the project component areas, including access roads and staging areas. In the event that special-status wildlife and special-status plants are identified within a proposed project component area or vicinity (survey buffer), buffers will be established by temporary flagging or fencing (this distance may be greater depending on the species and construction activity, as determined by the biologist) between the identified resource and construction activities. Flagging and fencing will be performed or supervised by a qualified biologist to ensure that these activities are conducted without harm to sensitive species, or habitat flagging and fencing will be performed or supervised by a qualified biologist to ensure that these activities are conducted without harm to sensitive species or habitat. The information gathered from these surveys will be used to determine project planning and minimize impacts on sensitive resources from project-related activities. In addition, the results of these surveys will be used to determine the extent to which</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>environmental specialist construction monitors will be required.</p> <p>For nesting birds, a field survey will be conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the construction zone or within a minimum of 100 feet (500 feet for raptors) of the construction zone. In the event of the identification of nesting birds within a proposed project component area or vicinity, a minimum 50-foot exclusionary buffer will be established by temporary flagging or fencing (this distance may be greater depending on the bird species and construction activity, as determined by the biologist) between the nest site and construction activities. Clearing and construction within the fenced area will be postponed or halted (except for vehicle traffic on existing roads), at the discretion of the biological monitor, until the nest is vacated and juveniles have fledged. The biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests will occur.</p> <p>Biological monitoring will be conducted during construction work in areas in close proximity to native habitat to assure project compliance with all APMs and Mitigation Measures.</p> <p>APMs BR-2 through BR-6. See above.</p> <p>APM BR-7: Wildlife Relocation and Protection. During construction activities, wildlife resources that are not considered to have special status and are determined to be in harm's way may be relocated by the applicant and SCE and/or their</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>construction contractors to native habitat near the work area but outside the construction impact zone in order to avoid injury or mortality.</p> <p>For the trench to be excavated in the area of the Central Compressor Station during construction for the purposes of pipeline installation, the applicant will ensure that backfilling of the trench would occur within 72 hours of pipeline installation to preclude potential impacts to wildlife that may fall into the trench. At the conclusion of each day's trenching activity, the end of the trench would be left ramped at an approximate 2-to-1 slope to allow any wildlife falling into the trench to escape.</p> <p>APM BR-8: Oak Tree Impact Avoidance. In accordance with City of Santa Clarita/Los Angeles County ordinance and policy guidelines, the applicant and SCE will ensure that loss or impacts to all native oak trees via trimming or ground disturbance within the dripline (i.e., the outermost extent of the canopy) will be avoided using specific measures and/or agency guidance. If impacts cannot be avoided, the applicant or SCE will submit an Oak Tree Permit Application (including an Oak Tree Report) to Los Angeles County and obtain an Oak Tree Permit prior to construction.</p> <p>APM GE-3: Erosion and Sediment Control. See above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>APM HZ-7: Wood Pole Recycling and Disposal. See above.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>MM BR-1 through MM BR-5. See above.</p> <p>MM BR- 6: Avian Safe Building Standards. The applicant and SCE will design all transmission structures installed as part of the proposed project to be consistent with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (APLIC 2006).</p> <p>MM BR-7: Avian Protection Plans. Prior to construction, the applicant and SCE will develop and implement avian protection plans according to Avian Protection Plan (APP) Guidelines (APLIC & USFWS 2005). The avian protection plans will include provisions to reduce impacts on avian species during construction and operation of the proposed project, including measures to reduce impacts on nesting birds, and will provide for the adaptive management of project-related issues. The Avian Protection Plans will be reviewed and approved by the CDFG and USFWS prior to construction.</p> <p>MM BR-8: Pre-Construction Surveys for Least Bell's Vireo and Southwestern Willow Flycatcher. Prior to construction, the applicant and SCE will complete protocol-level surveys for least Bell's vireo and southwestern willow flycatcher in areas of suitable or potentially suitable habitat in the proposed project component areas. Surveys will be completed by a permitted biologist(s) according to the survey protocol for least Bell's vireo (USFWS 2001) and southwestern willow flycatcher (Sogge et al. 2010). Whenever least Bell's vireo or southwestern willow flycatcher territory or nest sites are confirmed, the applicant and/or SCE will notify the USFWS and CDFG immediately upon</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>return from the field. In the event that any least Bell's vireos or southwestern willow flycatchers or their nests are observed, biologists will establish and maintain a minimum 500-foot exclusionary buffer by installing temporary flagging or fencing between the nest site and construction activities. Federal endangered species recovery permits are not required for least Bell's vireo surveys, but are required in all USFWS regions where the southwestern willow flycatcher breeds (application forms can be downloaded at http://www.fws.gov/forms/3-200-55.pdf). State survey permits also may be required from the CDFG for both species.</p> <p>MM BR-9: Nesting Golden Eagle. Nesting surveys for golden eagles will be completed per the most recent USFWS survey guidelines by the applicant and SCE prior to project construction and will include areas within 660 feet of proposed project components located within suitable golden eagle nesting habitat. If surveys identify nesting golden eagles within 660 feet of the proposed project component areas, the applicant and SCE will ensure that all construction activities within 660 feet of the nest occur outside of the nesting season (January through June, subject to adjustment based on field observations). The nest will be monitored from outside the 660-foot buffer by a qualified raptor ecologist with demonstrated experience monitoring eagles and knowledge of normal eagle nesting behavior. In the event that the raptor ecologist observes abnormal behavior or notes any sign of potential disturbance to the nesting birds, the ecologist will ensure that work will be stopped within 1,320 feet of the nest. Work can continue within the buffered</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>area(s) after the raptor ecologist determines that the chicks have fledged and the nest is not active for the season. In the event that golden eagle nests are identified on structures to be removed or modified, the structures will be left in place pending consultation with the USFWS and CDFG.</p> <p style="text-align: center;"><i>Special Status Mammals</i></p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM BR-2: Designated Work Zones and Sensitive Resource Avoidance. See above.</p> <p>APM BR-3: Post-construction Restoration for Reconductoring. See above.</p> <p>APM BR-5: Exclusionary Fencing. See above.</p> <p>APM BR-6: Biological Monitoring. See above.</p> <p>APM BR-8: Oak Tree Impact Avoidance. See above.</p> <p>APM GE-3: Erosion and Sediment Control. See below.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p style="text-align: center;"><i>Special Status Plants</i></p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM AQ-4: Watering Prior to Grading and Excavation. See above.</p> <p>APMs BR-1 through BR-6 and APM BR-8. See</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>MM BR-4: Restriction of Vehicular Traffic. See above.</p> <p>MM BR-10 Restoration of Plummer's Mariposa Lily and Slender Mariposa Lily. The applicant and SCE will complete pre-construction surveys during the appropriate blooming period to identify Plummer's mariposa lily and slender mariposa lily populations in the proposed project component areas at the storage field and in the area of the 66-kV subtransmission line. Plummer's mariposa lily and slender mariposa lily plants will be identified by a qualified biologist and flagged or surrounded with fencing in such a way that disturbance of the populations will be avoided. In the event that populations or individuals of either species cannot be avoided, restoration will occur. The applicant will develop and implement a restoration plan for both plants which will be reviewed and approved by CDFG prior to project construction. Restoration will occur after construction and to an extent such that "no net loss" (i.e., replacement of destroyed plants at a 1:1 ratio) is ensured for all plants of either species in the proposed project component areas. Restoration may be completed by:</p> <ol style="list-style-type: none"> 1. Establishing Plummer's mariposa lily and slender mariposa lily plants within the proposed project areas (onsite); 2. Establishing Plummer's mariposa lily and slender mariposa lily plants outside the project areas (offsite); or 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>3. Purchase of credits and/or mitigation lands at a ratio above 1:1 from an entity reviewed and approved by the USFWS and/or CDFG.</p> <p>Details of the restoration plan will be pending consultation between SCE, USFWS, and CDFG. For Options 1. and 2. (establishing Plummer’s mariposa lily and slender mariposa lily plants onsite or off-site), the plan will include the following elements: planting/seeding palettes; monitoring and contingency program; monitoring schedule, including duration and performance criteria (a minimum of 80 percent successful plant establishment after a minimum of three years); and any specific measures that will be required to ensure success of the restoration effort.</p> <p>MM BR-11: Non-Native and Invasive Plant Species. The applicant and SCE will avoid and reduce the spread of non-native and invasive plant species in the proposed project component areas through the following actions:</p> <ol style="list-style-type: none"> 1. All equipment brought in from offsite that could transport soils, seeds, or other plant propagules (i.e., seeds, spores, tubers, or stems that can reproduce the plant) will be washed at a containment area to prevent introduction of unwanted plant material to the proposed project component areas; 2. All construction vehicles or equipment operating within the proposed project component areas in areas known to have noxious or invasive weeds will similarly be cleaned of any soils or plant materials before transport or re-deployment elsewhere within the proposed project component areas to 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>prevent transferring weeds;</p> <p>3. All soils, gravel, imported fill, or other construction materials brought from offsite that could inadvertently contain unwanted plant propagules will come from confirmed weed-free sources;</p> <p>4. All seeds to be used in revegetation and reclamation activities will come from onsite, or from certified weed-free sources; and</p> <p>5. All temporary disturbance areas, including access roads, transmission line corridors, and towers would be monitored on a quarterly basis for one year after project construction is completed for invasive species establishment, and weed control measures will be initiated immediately upon evidence of invasive species introduction.</p>		
<p>Impact BR-2: Substantial adverse effect on riparian habitat or other sensitive natural community.</p>	<p>Riparian Habitat</p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM BR-2: Designated Work Zones and Sensitive Resource Avoidance. See above.</p> <p>APM BR-3: Post-construction Restoration for Reconductoring. See above.</p> <p>APM BR-5: Exclusionary Fencing. See above.</p> <p>APM GE-3: Erosion and Sediment Control. See below.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>MM BR-1: Trimming of Vegetation. See above.</p> <p>MM BR-5: Impacts on Hydrologic Features.</p>	<ul style="list-style-type: none"> • Ensure that the applicant and SCE survey for riparian zones within the storage field, the 66-kV subtransmission line routes, and Telecommunications Route #2 as specified in MM BR-12. • Ensure that SCE surveyed Telecommunications Route #2 for individual oak trees as specified in MM BR-13. • See above/below for APMs BR-1 through BR-8; APMs AQ-3, GE-3, and HZ-6; and MMs BR-1 through BR-10. • See additional requirements for 	<p>Prior to, during, and after construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>See above.</p> <p>MM BR-12: Minimize Impact on Riparian Habitat. The applicant and SCE will complete the following:</p> <ol style="list-style-type: none"> 1. A qualified ecologist will survey and determine the spatial extent of riparian zones in the areas of the storage field, the 66-kV subtransmission line, and Telecommunications Route #2; 2. Where riparian vegetation would be impacted by project construction activities, the applicant and SCE will consult with CDFG to determine if a Lake and Streambed Alteration Agreement pursuant to California Fish and Game Code 1600 would be necessary; and 3. In those areas where riparian vegetation is required to be removed, the applicant and SCE will work with a qualified arborist to determine the minimum amount of vegetation required to be removed in order to accommodate project construction, and the correct trimming procedures to employ. <p>Sensitive Natural Communities</p> <p>APMs BR-1 through BR-8. See above.</p> <p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>MMs BR-1 through BR-10 and MM BR-12. See above.</p> <p>MM BR-13: Oak Trees in the Vicinity of Telecommunications Route #2. Prior to construction, SCE will survey the area of</p>	<p>MM BR-12 and MM BR-13.</p>	

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Telecommunications Route #2 for individual oak trees that meet the criteria for protection under the Los Angeles County ordinance. All oak trees whose trunks measure 25 inches or more in circumference (8 inches in diameter) will not be removed, nor will ground compaction occur within a 10-foot radius from the drip line of any oak tree that meets this criterion. Impacts on all oak trees within the area of disturbance for Telecommunications Route #2 beyond minor trimming will be avoided and minimized (i.e., no more than 25 percent of any individual oak tree canopy will be trimmed during one growing season). In the event that impacts on oak trees meeting the above criterion cannot be avoided or minimized, the applicant will provide oak tree seedling replacement at a 2:1 ratio, pending consultation with Los Angeles County.</p>		
<p><i>Impact BR-3: Substantial adverse effect on federally protected wetlands.</i></p>	<p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM BR-2: Designated Work Zones and Sensitive Resource Avoidance. See above.</p> <p>APM GE-3: Erosion and Sediment Control. See below.</p> <p>MM BR-5: Impacts on Hydrologic Features. See above.</p>	<p>See above/below.</p>	<p>See above/below.</p>
<p><i>Impact BR-4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impendance of the use of native wildlife nursery sites.</i></p>	<p>APM BR-2: Designated Work Zones and Sensitive Resource Avoidance. See above.</p>	<p>See above.</p>	<p>See above.</p>
<p><i>Impact BR-5: Conflict with local policy</i></p>	<p>APM AQ-3: Minimization of Disturbed Areas.</p>	<p>See above.</p>	<p>See above.</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
<i>and ordinance protecting oak trees.</i>	<p>See above.</p> <p>APM AQ-4: Watering Prior to Grading and Excavation. See above.</p> <p>APM BR-8: Oak Tree Impact Avoidance. See above.</p>		
4.5 Cultural Resources			
<p>Impact CR-1: Substantial adverse change in the significance of an historical resource.</p>	<p>APM CR-1: Conductor Pull and Tension Sites. SCE will ensure that, where feasible, conductor pull and tension sites are located on existing level areas and existing roads to minimize the need for grading and cleanup.</p> <p>APM CR-2: Unidentified Cultural Resources. The applicant and SCE will ensure that, if previously unidentified cultural resources are unearthed during construction activities, construction will be halted in that area and directed away from the discovery until a qualified archaeologist assesses the significance of the resource. If determined to be required by the archeologist, the archaeologist will evaluate the significance of the discovered resources based on eligibility for the California Register of Historical Resources (CRHR) or local registers. Should any cultural resources be identified during construction activities in all project areas (including but not limited to culturally sensitive areas), the applicant and SCE will ensure that qualified archaeologists will monitor cultural resources mitigation and ground-disturbing activities in the area of the find. The size of the area of the find will be determined by the archeologist. The archaeologist will recommend appropriate measures to record, preserve, or recover the resources. Preliminary recommendations of CRHR eligibility made by the</p>	<ul style="list-style-type: none"> • Ensure that cultural surveys are completed after final siting for SCE project components and that qualified cultural resources consultants and archaeologists are retained by the applicant and SCE (APM CR-4, MM CR-1, and MM CR-2). • Confirm that Cultural Resources Plans were prepared by the applicant and SCE per MM CR-1 requirements. • See additional requirements for APMs CR-1, CR-2, and CR-4 and MM CR-4. • See requirements for APM HZ-6, below. • Ensure that final inspection is completed after project components are constructed (MM CR-5). 	<p>Prior to, during, and after construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>archaeologist will be reviewed by the CPUC.</p> <p>APM CR-4: Cultural Surveys After Final Project Siting. Once final siting for SCE project components is completed, SCE or its contractor will complete additional pedestrian surveys for cultural resources, for all areas of proposed disturbance that are not currently located in a built environment within the 66-kV subtransmission line reconductoring route, access roads, and staging areas; and Telecommunications Route #2, access roads, and staging areas. The information gathered from these surveys will be used to determine project planning and design in order to avoid sensitive resources and identify measures that would minimize impacts on sensitive resources from project-related activities. In addition, the results of these surveys will be used to determine the extent to which environmental specialist construction monitors will be required. The survey will result in a report detailing the research design, methods and results of the survey. This report will be submitted to the CPUC.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See below.</p> <p>MM CR-1: Cultural Resources Plan. The applicant and SCE will retain the services of qualified cultural resources consultants who meet or exceed the U.S. Secretary of the Interior qualification standards for archaeologists published in 36 Code of Federal Regulations 61 and have experience working in the jurisdictions traversed by the project, sufficient that they can identify the full range of cultural resources that may be found in the region. The consultants will</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>also have knowledge of the cultural history of the project area and will be approved by the California Public Utilities Commission (CPUC). Prior to issuance of construction permits, the applicant and SCE will submit Cultural Resources Plans for the respective project components, prepared by the approved consultant(s) for review and approval by the CPUC. The intent of the Cultural Resources Plans will be to address cultural resources eligible for the CRHR that cannot be preserved by avoidance and to identify areas where monitoring of earth-disturbing activities is required. The monitoring plan shall include, at a minimum:</p> <ul style="list-style-type: none"> • A list of personnel to which the plan applies; • Requirements, as necessary, and plans for continued Native American involvement and outreach, including participation of Native American monitors during ground-disturbing activities as determined appropriate; • Brief identification and description of the general range of the resources that may be encountered; • Identification of the elements of a site that would lead to it meeting the definition of a cultural resource requiring protection and mitigation; • Identification and description of resource mitigation that would be undertaken if required; • Description of monitoring procedures that will take place for each project component area as required; 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<ul style="list-style-type: none"> • Description of how often monitoring will occur (e.g., full-time, part time, spot checking); • Description of the circumstances that would result in the halting of work; • Description of the procedures for halting work and notification procedures for construction crews; • Testing and evaluation procedures for resources encountered; • Description of procedures for curating any collected materials; • Reporting procedures; and • Contact information for those to be notified or reported to. <p>MM CR-2: Additional Cultural Resources Surveys. Prior to issuance of construction permits, the applicant and SCE will ensure that qualified archaeological consultants, as specified in the Cultural Resources Plans, will conduct intensive-level cultural resources surveys (transects no greater than 15 meters) for all areas to be disturbed that have not already been surveyed for cultural resources and, prior to the project, had previously been undisturbed. Reports that specify the research design, methods, and survey results will be submitted to the CPUC for review. Cultural resources surveys for areas along Telecommunications Route #3 that are located more than 600 feet east of San Fernando Substation will not be required, because these areas are located within residential</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>neighborhoods and are disturbed areas.</p> <p>MM CR-3: Construction Monitoring. Prior to issuance of grading permit(s), the applicant and SCE will retain qualified archaeologists as specified in the Cultural Resources Plans to monitor cultural resources mitigation and ground-disturbing activities in culturally sensitive areas. Culturally sensitive areas would include those areas along the 66-kV subtransmission line reconductoring routes and Telecommunications Route #3 and within the storage field that have not previously been disturbed. Cultural resources monitoring for areas along Telecommunications Route #3 that are located more than 600 feet east of San Fernando Substation will not be required because these areas are located within residential neighborhoods and are disturbed areas. The qualified archaeologists will attend preconstruction meetings to provide comments and/or suggestions concerning monitoring plans and discuss excavation plans with excavation contractors.</p> <p>MM CR-4: Stop Work for Unanticipated Cultural Resources Discoveries. In the event that previously unidentified cultural resources are uncovered during implementation of the project, the applicant and SCE will ensure that ground-disturbing work would be halted or diverted away from the discovery to another location. The CPUC-approved archeological monitor will inspect the discovery and determine whether further investigation is required. If the discovery is significant but can be avoided and no further impacts would occur, the resource would be documented appropriately and no further effort would be required. If the resource is significant</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>but cannot be avoided and may be subject to further impact, the CPUC-approved archeological monitor would evaluate the significance of the resource based on eligibility for the California Register of Historical Resources (CRHR) or local registers and implement appropriate measures in accordance with the Cultural Resources Plans.</p> <p>MM CR-5: Cultural Resources Reporting. Prior to final inspection after construction of project components has been completed, the applicant's and SCE's qualified archaeologists as specified in the Cultural Resources Plans will submit reports to the CPUC summarizing all monitoring and mitigation activities and confirming that all mitigation measures have been implemented. If a cultural resource that meets the definition of a significant resource is encountered and data recovery is necessary, then a data recovery program will be implemented for the resource that is approved by both the qualified archeologist/s and the CPUC.</p>		
<p>Impact CR-2: Substantial adverse change in the significance of an archaeological resource.</p>	<p>See Impact CR-1, above.</p>	<p>See Impact CR-1, above.</p>	<p>See Impact CR-1, above.</p>
<p>Impact CR-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>MM CR-6: Paleontological Monitoring and Treatment Plan. Prior to construction permit issuance, the applicant and SCE will retain CPUC-approved paleontologists to prepare Paleontological Monitoring and Treatment Plans, and submit to the CPUC for review and approval. The CPUC-approved paleontologists will have knowledge of the local paleontology and be familiar with paleontological procedures and techniques.</p> <p>The Paleontological Monitoring and Treatment</p>	<ul style="list-style-type: none"> • Ensure that CPUC-approved paleontologists are retained by the applicant and SCE (MM CR-6). • Confirm that Paleontological Monitoring and Treatment Plans were prepared by the applicant and SCE per MM CR-6 requirements. • Confirm that applicant and SCE construction personnel are 	<p>Prior to, during, and after construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>Plans will follow Society of Vertebrate Paleontology guidelines and meet all regulatory requirements. The Paleontological Monitoring and Treatment Plans will address the 66-kV subtransmission line reconductoring routes, Telecommunications route #2, and Telecommunications Route #3, Natural Substation, guardhouse, and entry road widening sites. The Paleontological Monitoring and Treatment Plans will identify construction impact areas of moderate to high sensitivity for encountering potential paleontological resources and the shallowest depths at which those resources may be encountered. The Paleontological Monitoring and Treatment Plans will detail the criteria to be used to determine whether an encountered resource is significant and if it should be avoided or recovered for its data potential. The Paleontological Monitoring and Treatment Plans will also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.</p> <p>The Paleontological Monitoring and Treatment Plans will outline coordination strategies to ensure that CPUC-approved paleontological monitors will conduct full-time monitoring of all grading activities in sediments determined to have a moderate to high sensitivity. For sediments of low or undetermined sensitivity, the Paleontological Monitoring and Treatment Plans will specify what level of monitoring is necessary. Sediments with no sensitivity will not require paleontological monitoring. The Paleontological Monitoring and Treatment Plans will define</p>	<p>trained per MM CR-7 requirements.</p> <ul style="list-style-type: none"> • See additional requirements for MM CR-6 through MM CR-10. 	

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors will be defined by the CPUC-approved paleontologists.</p> <p>MM CR-7: Construction Personnel Training. Prior to the initiation of construction or ground-disturbing activities in areas with high paleontological sensitivity, the applicant and SCE shall ensure that all construction personnel conducting rough grading shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction grading. The applicant and SCE will complete training for all applicable personnel. Training will inform all applicable personnel of the procedures to be followed upon the discovery of paleontological resources. All personnel will be instructed that unauthorized collection or disturbance of protected fossils on- or off-site by the applicant or SCE or their representatives or employees is illegal and that violators shall be subject to prosecution under appropriate federal and state laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.</p> <p>MM CR-8: Paleontology Construction Monitoring. Based on the Paleontological Monitoring and Treatment Plans, the applicant and SCE will conduct paleontological monitoring using CPUC-approved paleontological monitors. This will include monitoring during rough grading and trenching in areas determined to have high paleontological sensitivity and that have the potential to be shallow enough to be adversely</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>affected by such earthwork as determined by the CPUC-approved paleontological monitors.</p> <p>MM CR-9: Stop Work for Unanticipated Paleontological Discoveries. In the event that previously unidentified paleontological resources are uncovered during implementation of the project, the applicant and SCE will ensure that ground-disturbing work would be halted or diverted away from the discovery to another location. A CPUC-approved paleontological monitor would inspect the discovery and determine whether further investigation is required. If the discovery is significant but can be avoided and no further impacts would occur, the resource would be documented in the appropriate paleontological resource records and no further effort would be required. If the resource is significant but cannot be avoided and may be subject to further impact, the CPUC-approved paleontological monitor would evaluate the significance of the resource and implement appropriate measures in accordance with the Paleontological Monitoring and Treatment Plans.</p> <p>MM CR-10: Paleontological Data Recovery. Prior to final inspection after construction of project components has been completed, if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) will be carried out by the applicant and SCE in accordance with the approved Paleontological Monitoring and Treatment Plans.</p>		
<p>Impact CR-4: Disturb any human remains, including those interred</p>	<p>APM CR-3: Human Remains. The applicant and SCE will ensure that, if human remains are encountered during construction or any other</p>	<ul style="list-style-type: none"> • Ensure that cultural surveys are completed after final siting for SCE project components and 	<p>Prior to, during, and after construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
<p><i>outside of formal cemeteries.</i></p>	<p>phase of development, work will be halted in the area and directed away from the discovery. The County Coroner will be notified within 24 hours of the discovery. No further disturbance will occur until the County Coroner makes the necessary findings of origin and disposition pursuant to Public Resources Code 5097.98–99, Health and Safety Code 7050.5. If the coroner determines that the burial is not historic, but prehistoric, the Native American Heritage Commission (NAHC) will be contacted to determine the most likely descendent (MLD) for this area. The MLD may become involved with the disposition of the burial following scientific analysis. If the remains are determined to be Native American, the Native American Heritage Commission will be notified within 24 hours as required by Public Resources Code 5097. The CPUC will mediate any disputes regarding treatment of remains.</p> <p>APM CR-4: Cultural Surveys After Final Project Siting. See above.</p> <p>MM CR-1: Cultural Resources Plan. See above.</p> <p>MM CR-2: Additional Cultural Resources Surveys. See above.</p> <p>MM CR-3: Construction Monitoring. See above.</p> <p>MM CR-4: Stop Work for Unanticipated Cultural Resources Discoveries. See above.</p> <p>MM CR-5: Cultural Resources Reporting. See above.</p> <p>MM CR-10: Paleontological Data Recovery. See above.</p>	<p>that qualified cultural resources consultants and archaeologists are retained by the applicant and SCE (APM CR-4, MM CR-1, and MM CR-2).</p> <ul style="list-style-type: none"> • Confirm that Cultural Resources Plans were prepared by the applicant and SCE per MM CR-1 requirements. • See additional requirements for APMs CR-3 and CR-4, MMs CR-1 through CR-6, and MM CR-10. • Ensure that final inspection is completed after project components are constructed (MM CR-5). 	

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
4.6 Geology, Soils, and Mineral Resources			
<p>Impact GE-1: Expose people or structures to risk of loss, injury, or death involving rupture of a known earthquake fault.</p>	<p>APM GE-1: Geotechnical Studies. The applicant will ensure that, for the construction of the Central Compressor Station, construction procedures will be conducted as discussed in the recommendations section of the Preliminary Geotechnical Investigation Report prepared by Globus (2006) to avoid impacts related to unstable geologic conditions. In addition, pre-engineering geotechnical studies will be completed by the applicant and SCE for the proposed Natural Substation and select TSP locations prior to construction. The pre-engineering geotechnical studies will evaluate the depth to the water table; document evidence of faulting; and determine liquefaction potential, physical properties of subsurface soil, soil resistivity, slope stability, and the presence of hazardous materials. The applicant and SCE will further ensure that, for the construction of the Natural Substation and select TSP locations, construction procedures will be conducted as discussed in the recommendations section of the geotechnical studies report.</p>	<ul style="list-style-type: none"> • Ensure that pre-engineering geotechnical studies are be completed by the applicant and SCE (APM GE-1). • See additional requirements for APM GE-1. 	<p>Prior to and during construction</p>
<p>Impact GE-2: Expose people or structures to the risk of loss, injury, or death involving strong seismic ground shaking.</p>	<p>APM GE-1: Geotechnical Studies. See above. APM GE-2: Seismic-resistant Design Measures. The applicant and SCE will ensure that the proposed project components are designed in accordance with CPUC General Orders and to meet applicable seismic safety standards of the California Building Code and Uniform Building Code standards for Seismic Risk Zone IV. Specific design measures may include, but are not limited to, special foundation design and additional bracing and support of upright facilities. Project facilities and foundations</p>	<ul style="list-style-type: none"> • Ensure that pre-engineering geotechnical studies are be completed by the applicant and SCE (APM GE-1). • See additional requirements for APM GE-1 and GE-2. 	<p>Prior to and during construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	will be designed to withstand changes in soil density. The proposed Natural Substation will be designed consistent with the Institute of Electrical and Electronics Engineers 693 standard, <i>Recommended Practices for Seismic Design of Substations</i> .		
Impact GE-3: Expose people or structures to the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	See Impact GE-2, above.	See Impact GE-2, above.	See Impact GE-2, above.
Impact GE-4: Expose people or structures to the risk of loss, injury, or death involving landslides.	See Impact GE-2, above.	See Impact GE-2, above.	See Impact GE-2, above.
Impact GE-5: Result in substantial soil erosion or the loss of topsoil.	<p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM GE-3: Erosion and Sediment Control. The applicant and SCE will ensure that erosion and sediment control measures will be implemented in each of the project component areas during construction activities to reduce the amount of soil displaced and transported to other areas by storm water, wind, or other natural forces. To minimize site disturbance, the applicant and SCE or their respective construction contractors will:</p> <ul style="list-style-type: none"> • Remove only the vegetation that is absolutely necessary to remove (e.g., trim or mow instead of grub where feasible); • Avoid off-road vehicle use outside work zones; and • Instruct all construction personnel on storm water pollution prevention concepts to ensure they are conscious of how their actions affect the potential for erosion and 	<ul style="list-style-type: none"> • Ensure that the applicant and SCE complete formal delineations per USACE protocols and consult with CDFG and USACE as specified in MM BR-5. • See requirements for APMs AQ-3, GE-3, and MM BR-5. 	Prior to and during construction

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	sedimentation. MM BR-5: Impacts on Hydrologic Features. See above.		
<i>Impact GE-6: Located on a geologic unit or soil that is or would become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</i>	APM GE-1: Geotechnical Studies. See above.	See above.	See above.
<i>Impact GE-7: Located on expansive soil.</i>	APM GE-2: Seismic-resistant Design Measures. See above.	See above.	See above.
4.7 Greenhouse Gases			
<i>Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</i>	APM AQ-1: Maintain Engines in Good Working Condition. See above. APM AQ-2: Minimization of Equipment Use. See above. APM GHG-1: Engine Maintenance. The applicant and SCE will ensure that construction and operations vehicle equipment engines are maintained in good condition and in proper tune according to manufacturer specifications. APM GHG-2: Scheduling. The applicant and SCE will ensure that staff and daily construction activities for each of the project components are efficiently scheduled to minimize the use of unnecessary/duplicate equipment when possible.	See requirements for APMs AQ-1, AQ-2, GHG-1, and GHG-2.	During construction
4.8 Hazards and Hazardous Materials			
<i>Impact HZ-1: Significant hazard from routine transport, use, or disposal of hazardous materials.</i>	APM HZ-3: Hazardous Materials Spill and Release Prevention. The applicant and SCE will ensure that construction procedures are implemented to minimize the potential for hazardous material spills and releases in each of the project component areas.	<ul style="list-style-type: none"> • Ensure that the applicant and SCE implement a Worker Environmental Awareness Training program as specified in APM HZ-6. • See additional requirements for APMs HZ-3, HZ-5, HZ-6, and 	Prior to and during construction

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. The applicant and SCE will ensure the following during construction of the proposed project components:</p> <ul style="list-style-type: none"> • All hazardous materials (including fuels, lubricants, and cleaning solvents) will be stored, handled, and used in accordance with applicable regulations. • For all hazardous materials in use at construction sites, Material Safety Data Sheets will be available for routine or emergency use. <p>In addition, the applicant will ensure the following for the storage field project components during construction:</p> <ul style="list-style-type: none"> • All hazardous materials planned for use or storage at the storage field site during construction of the proposed Central Compressor Station will be preapproved by the applicant's designated safety staff. Approval of hazardous materials will be determined only after full review of the Material Safety Data Sheet for the proposed material. • Hazardous materials storage locations at the storage field will be determined based on the storm water pollution prevention plan and storage field policy. Existing materials are stored within the storage field's hazardous material and hazardous waste storage area. <p>The applicant and SCE will also ensure the following during operation of the proposed project</p>	<p>HZ-7.</p>	

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>components:</p> <ul style="list-style-type: none"> All hazardous and nonhazardous wastes generated during operation of the proposed project (e.g., waste oil and gas condensates from the compressor station) will be classified and managed in accordance with federal and state regulations and site-specific permits. <p>All hazardous materials (including fuels, lubricants, and cleaning solvents) will be stored, handled, and used in accordance with applicable regulations.</p> <p>APM HZ-6: Worker Environmental Awareness Training. . Prior to construction, the applicant and SCE will develop and implement Worker Environmental Awareness Training Programs based on the final engineering design, the results of preconstruction surveys, and a list of mitigation measures developed by the CPUC to mitigate significant environmental effects of the proposed project. Prior to start of work, presentations will be prepared by the applicant and SCE and shown to all workers who will be present on the proposed project component sites during construction. A record of all trained personnel (including logs of training sessions signed by all workers who attended each session) will be kept with the construction foreman. The CPUC will conduct regular (monthly and random) audits to ensure that workers on the project component sites have received the appropriate training. Audits will include worker tests and/or interviews to confirm adequate instruction in construction procedures and mitigation measures.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>All construction personnel will receive the following:</p> <ol style="list-style-type: none"> 1. Instruction for compliance with project component site-specific biological or cultural resource protective measures and mitigation measures that are developed after preconstruction surveys; 2. A list of phone numbers for key personnel associated with the proposed project including the archeological and biological monitors, environmental compliance coordinator, and regional spill response coordinator; 3. Instruction on the South Coast Air Quality Management District Fugitive Dust and Ozone Precursor Control Measures and Portable Engine Operating Parameters; 4. Direction that site vehicles must be properly muffled; 5. Instruction on what typical cultural resources look like, and instruction that if cultural resources are discovered during construction, to suspend work in the vicinity of the find and contact the site supervisor and archeologist or environmental compliance coordinator; 6. Instruction on how to work near any Environmentally Sensitive Areas delineated by archeologists or biologists; 7. Instruction on individual responsibilities under the Clean Water Act, the applicant's and SCE's storm water pollution prevention plans, site-specific best management 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>practices, hazardous materials and waste management requirements, and the location of Material Safety Data Sheets as needed for each proposed project component;</p> <p>8. Instructions to notify the site supervisor and regional spill response coordinator in the event of hazardous materials spills or leaks from equipment or upon the discovery of soil or groundwater contamination;</p> <p>9. A copy of the truck routes to be used for material delivery; and</p> <p>10. Instruction that noncompliance with any laws, rules, regulations, or mitigation measures could result in being barred from participating in any remaining construction activities associated with the proposed project components.</p> <p>APM HZ-7: Wood Pole Recycling and Disposal. SCE will ensure that utility pole and other utility wood waste is reused by SCE, returned to the manufacturer, disposed of in a Class I hazardous waste landfill, or disposed of in the lined portion of a municipal landfill certified by the associated Regional Water Quality Control Board.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
<p>Impact HZ-2: Significant hazard from accident conditions involving the release of hazardous materials.</p>	<p>APM HZ-3: Hazardous Materials Spill and Release Prevention. See above.</p> <p>APM HZ-4: Contaminated Soil Disposal. The applicant and SCE will ensure that any soil from excavation and grading activities that is suspected of being contaminated with oil or other hazardous materials is characterized and disposed offsite at an appropriately licensed waste facility.</p> <p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. See above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See above.</p> <p>MM HZ-1: Soil Sampling and Contaminated Soils Contingency Plan. The applicant will prepare a Soil Sampling and Contaminated Soils Contingency Plan that would outline procedures for testing soils in locations where contaminated soils are suspected to be present including the office building and Central Compressor Station site locations. The Soil Sampling and Contaminated Soils Contingency Plan will also outline the steps that would be implemented if contaminated soils are encountered during pre-construction soil sampling and testing or if they are encountered at any point during construction. Provisions outlined in this plan would include phone numbers of city, county, state, and federal agencies and primary, secondary, and final cleanup procedures. In addition, the plan would address health and safety procedures to minimize environmental impacts in the event that hazardous soils or other materials are encountered during construction of the project,</p>	<ul style="list-style-type: none"> • Ensure that the applicant prepares a Soil Sampling and Contaminated Soils Contingency Plan as specified in MM HZ-1. • Ensure that the applicant and SCE implement a Worker Environmental Awareness Training program as specified in APM HZ-6. • See additional requirements for APMs HZ-3, HZ-4, HZ-5, and HZ-6 and MM HZ-1. 	<p>Prior to and during construction</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	including measures such as worker training, containerization and storage, and monitoring. The plan would also establish security measures to prevent unauthorized entry to cleanup sites and to reduce hazards outside the investigation/cleanup area and would identify appropriate, licensed disposal facilities, and haulers.		
<i>Impact HZ-3: Emit hazardous emissions or involve handling hazardous materials, substances, or waste within one-quarter miles of an existing or proposed school.</i>	<p>APM HZ-3: Hazardous Materials Spill and Release Prevention. See above.</p> <p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. See above.</p> <p>APM HZ-6: Worker Environmental Awareness Training. See above.</p>	See above.	See above.
<i>Impact HZ-4: Be located on a site that is included on a list of hazardous materials sites.</i>	MM HZ-1: Soil Sampling and Contaminated Soils Contingency Plan. See above.	See above.	See above.
<i>Impact HZ-5: Safety hazards for people residing or working in the project component areas that are within the area of an airport land use plan or within two miles of an airport.</i>	APM HZ-1: Federal Aviation Administration Consultation. SCE will consult with the Federal Aviation Administration as part of the design phase for the SCE-proposed project components to ensure that elevated structures such as TSPs will not pose a hazard for air traffic.	See requirements for APM HZ-1.	Prior to construction
<i>Impact HZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</i>	APM HZ-8: Construction Fire Control and Emergency Response Measures. To address the risk of fire during construction of the proposed project components, the applicant and SCE will develop fire control and emergency response measures as part of the Construction Safety and Emergency Response Plans developed in consultation with their contractors for use during construction of the proposed project components. The Construction Fire Control and Emergency Response Measures will describe fire prevention	<ul style="list-style-type: none"> • Ensure that the applicant and SCE develop Construction Safety and Emergency Response Plans as specified in APM HZ-8. • See additional requirements for APM HZ-8. 	Prior to construction

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>and response practices that the applicant and SCE will implement during construction of the proposed project components to minimize the risk of fire, and in the case of fire, provide for immediate suppression and notification. SCE's Construction Fire Control and Emergency Response Measures will also be generally consistent with SCE's Specification E-2005-104, Transmission Line Project Fire Plan (February 21, 2006).</p> <p>The Construction Fire Control and Emergency Response Measures shall specify that the applicant and SCE, or the respective construction contractors, shall furnish all supervision, labor, tools, equipment, and material necessary to prevent starting any fire, control the spread of fires if started, and provide assistance for extinguishing fires started as a result of project construction activities.</p> <p>Labor shall include the assignment of Fire Risk Managers who will be present at each proposed project component area during construction activities, whose sole responsibility will be to monitor the contractor's fire-prevention activities, and who will have full authority to stop construction in order to prevent fire hazards.</p> <p>1. The Fire Risk Managers shall:</p> <ul style="list-style-type: none"> • Be responsible for preventing, detecting, controlling, and extinguishing fires set accidentally as a result of construction activity; • Review the Fire Control and Emergency Response Measures with the fire patrolperson and construction 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>employees prior to starting work at each project area;</p> <ul style="list-style-type: none"> • Ensure that all construction personnel are trained in fire safety measures relevant to their responsibilities. At a minimum, construction personnel shall be trained and equipped to extinguish small fires; • Be equipped with radio or cell phone communication capability; and • Maintain an updated a key personnel and emergency services contact (telephone and email) list, kept onsite and made available as needed to construction personnel. <p>2. Equipment shall include:</p> <ul style="list-style-type: none"> a. Spark arresters that are in good working order and meet applicable regulatory standards for all diesel and gasoline internal combustion engines, stationary and mobile; b. One shovel and one pressurized chemical fire extinguisher for each gasoline-powered tool, including but not restricted to compressors, hydraulic accumulators, gardening tools (such as chain saws and weed trimmers), soil augers, rock drills, etc.; c. Fire suppression equipment to be kept on all vehicles used for project construction; and d. An onboard self-extinguishing fire 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>suppression system capable of extinguishing any equipment-caused fire to be kept on heavy construction operating equipment.</p> <p>3. Measures to be undertaken by the applicant, SCE or the respective construction contractors, and monitored and enforced by the Fire Risk Manager, at each of the project areas during construction activities, shall include:</p> <ul style="list-style-type: none"> a. The installation of fire extinguishers at the proposed Central Compressor Station site; b. The prohibition of smoking at each construction job site as follows: no smoking in wildland areas; no smoking during operation of light or heavy equipment; limit smoking to paved areas or areas cleared of all vegetation; no smoking within 30 feet of any area in which combustible materials (including fuels, gases, and solvents) are stored; no smoking in any project construction areas during any Red Flag Warnings that apply to the area; c. The posting of no smoking signs and fire rules on the project bulletin board at all contractor field offices and areas visible to employees during fire season; d. The maintenance of all construction areas in an orderly, safe, and clean manner. All oily rags and used oil filters shall be removed from project construction areas. After construction 		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>activities are completed in each project area, the area shall be cleaned of all trash and surplus materials. All extraneous flammable materials shall be cleared from equipment staging areas and parking areas;</p> <p>e. Confinement of welding activities to cleared areas having a minimum radius of 10 feet measured from place of welding, and observed by the Fire Risk Manager;</p> <p>f. Prevention of the idling of vehicles with hot exhaust manifolds on dirt roads with dead combustible vegetation under the vehicle;</p> <p>g. The provision of portable communication devices (i.e., radio or mobile telephones) as needed to construction personnel and communication protocols for onsite workers to coordinate with local agencies and emergency personnel in the event of fire or other emergencies during construction or operation of the proposed project; and</p> <p>h. Any additional measures as needed during construction to address fire prevention and detection, to lower the risk of wildland fires.</p> <p>4. Measures will also include the following requirements that would involve coordination between the applicant and SCE, and the Fire Departments and CAL FIRE:</p> <p>a. The applicant and SCE or the</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>respective construction contractors shall furnish any and all forces and equipment to extinguish any uncontrolled fire near the project component areas as directed by Fire Department or CAL FIRE representatives;</p> <p>b. The applicant and SCE or the respective construction contractors shall abide by all restrictions to construction activity that may be enforced by the Fire Departments and/or CAL FIRE during Red Flag Warning days; and</p> <p>c. In the event that the applicant and SCE or the respective construction contractors sets fire to incinerate cleared vegetation, the Fire Risk Manager shall notify the Fire Departments and/or CAL FIRE in advance of the burning. Special care shall be taken to prevent damage to adjacent structures, trees, and vegetation.</p> <p>5. Measures will also include additional, special provisions for days when the National Weather Service issues a Red Flag Warning. Standard protocols implemented during these periods will include:</p> <p>a. Measures to address storage and parking areas;</p> <p>b. Measures to address the use of gasoline-powered tools;</p> <p>c. Procedures for road closures as</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>necessary;</p> <p>d. Procedures for use of a fire guard as necessary; and</p> <p>e. Additional fire suppression tools and fire suppression equipment, and training requirements.</p>		
<p><i>Impact HZ-7: Expose people or structures to a significant risk involving wildland fires.</i></p>	<p>APM HZ-2: Plant Power Line Inspection and Maintenance. After construction, the applicant will inspect and maintain the Plant Power Line on at least a monthly basis for the purpose of reducing wildfire hazards.</p> <p>APM HZ-8: Construction Safety and Emergency Response Plan. See above.</p> <p>MM HZ-2: Fire Department Review and Coordination. Prior to construction of the proposed project components, the applicant and SCE will coordinate with CAL FIRE, the City of Los Angeles Fire Department, and the Los Angeles County and Ventura County Fire Departments (Fire Departments) according to the location of the proposed project components, to the satisfaction of the lead agency. The applicant and SCE will submit the following materials (“fire management information”) for review by the Fire Departments: proposed project components and design, specific construction methods and equipment, and a description of plans and measures including but not limited to the applicant’s Fire/Emergency Action Plan, SCE’s Fire Management Plan, the applicant’s and SCE’s Construction Safety and Emergency Response Plans, and measures that would be undertaken by the applicant and SCE to further address risks</p>	<ul style="list-style-type: none"> • Confirm that the applicant and SCE coordinated with the Los Angeles County and Ventura County Fire Departments as specified in MM HZ-2. • Ensure that the applicant and SCE develop Construction Safety and Emergency Response Plans as specified in APM HZ-8. • See additional requirements for APMs HZ-2 and HZ-8 and MM HZ-2. 	<p>Prior to, during, and after construction and during operations</p>

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>involving wildland fires during construction and operation of the proposed project components (including Fire Control and Emergency Response Measures). The Fire Departments will review the applicant and SCE's fire management information prior to construction of the proposed project components. The applicant and SCE will also submit the fire management information along with a record of contacts and coordination with the Fire Departments to the CPUC, for review and approval prior to construction of the proposed project components. The applicant will also submit any revisions of the facility Fire/Emergency Action Plan related to operation of the Central Compressor Station, for the same level of review and approval, prior to the start of project operations at the storage field.</p>		

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
4.9 Hydrology and Water Quality			
<i>Impact HY-1: Violate water quality standards or waste discharge requirements.</i>	<p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM AQ-4: Watering Prior to Grading and Excavation. See above.</p> <p>APM AQ-6: Fugitive Dust from High Winds. See above.</p> <p>APM BR-3: Post-construction Restoration for Reconductoring. See above.</p> <p>APM GE-1: Geotechnical Studies. See above.</p> <p>APM GE-2: Seismic-resistant Design Measures. See above.</p> <p>APM GE-3: Erosion and Sediment Control. See above.</p> <p>APM HZ-3: Hazardous Materials Spill and Release Prevention. See above.</p> <p>APM HZ-4: Contaminated Soil Disposal. See above.</p> <p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. See above.</p> <p>APM PS-1: Site Cleanup. See below.</p> <p>APM PS-2: Non-hazardous Waste Management. See below.</p>	See above/below.	See above/below.
<i>Impact HY-3: Substantial alteration of the existing drainage pattern of the site or area.</i>	<p>APM AQ-3: Minimization of Disturbed Areas. See above.</p> <p>APM BR-3: Post-construction Restoration for Reconductoring. See above.</p> <p>APM GE-3: Erosion and Sediment Control.</p>	See above.	See above.

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	See above. MM BR-5: Impacts on Hydrologic Features. See above.		
Impact HY-8: Risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.	APM GE-1: Geotechnical Studies. See above. APM GE-2: Seismic-resistant Design Measures. See above.	See above.	See above.
4.10 Land Use and Planning			
No applicable APMs or mitigation measures.			
4.11 Noise			
Impact NS-1: Noise levels in excess of standards established in the local general plan or noise ordinance.	<p>APM NS-1: Construction Hours. The applicant and SCE will ensure that construction of the proposed project components will comply with all applicable City of Los Angeles, City of Santa Clarita, County of Los Angeles, and County of Ventura noise regulations. Construction activities will generally be scheduled during daylight hours (7:00 a.m. to 5:00 p.m.) Monday through Friday and some Saturdays.</p> <p>APM NS-2: Construction Noise Control Plan. SCE will prepare and implement a noise control plan to address all SCE structure installation/replacement and substation modifications associated with the SCE-proposed project components. Construction measures required by the Noise Control Plan will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Stockpiling and vehicle staging areas will be located as far away from occupied residences as possible; • All stationary construction equipment will be operated as far away from residential uses 	<ul style="list-style-type: none"> • Ensure that construction activities are scheduled during daylight hours Monday through Saturday or that variances from noise ordinances are obtained as necessary (APM NS-1). • Ensure that the applicant and SCE notify sensitive receptors about construction as specified in APM NS-3. • Ensure that SCE implements a Noise Control Plan (APM NS-2) and all noise control and reduction measures as specified in MM NS-1. • See additional requirements for APM NS-1 through NS-4 and MM NS-1. 	Prior to, during, and after construction

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>as possible;</p> <ul style="list-style-type: none"> • To the extent feasible, haul routes for removing excavated materials or delivery of materials from each respective project component site will be designed to avoid residential areas and areas occupied by residential receptors (e.g., hospitals, schools, convalescent homes, etc.); and • Idling construction equipment will be turned off when not in use for periods longer than 15 minutes. <p>APM NS-3: Notification Procedures. At least two weeks prior to construction, the applicant and SCE will notify all sensitive receptors within 300 feet of construction activities of the potential to experience significant noise levels during construction.</p> <p>APM NS-4: Operational Noise Control. MM NS-2: Operational Noise Control. After construction of the Central Compressor Station is completed, the applicant will take measures as necessary to ensure that the operational noise levels from the Central Compressor Station do not exceed 45 dBA at the closest receptor in the City of Los Angeles. Measures that may be implemented to achieve this level during the operational phase for turbines, compressors, and cooling equipment proposed to be installed at the Central Compressor Station could include:</p> <ul style="list-style-type: none"> • Turbines will be placed within an acoustical enclosure; • Compressor noise will be mitigated by placing an acoustical blanket over the 		

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	<p>compressor itself or enclosing the compressor within an appropriately rated acoustical building;</p> <ul style="list-style-type: none"> • Noise emitted from gas process coolers will be mitigated by installing acoustic barriers without gaps around the equipment casing and with a continuous minimum surface density of 10 kilograms per square meter in order to minimize the transmission of sound. <p>MM NS-1: Noise Reduction and Control Practices. SCE will employ the following noise reduction and control practices during subtransmission line reconductoring and fiber optic installation activities that could produce noise levels above 80 dBA Leq near sensitive receptors (within 100 feet):</p> <ul style="list-style-type: none"> • Construction equipment, stationary or mobile, will be equipped with properly operating and maintained mufflers on engine exhausts and compressor components. • Construction equipment specifically designed for low noise emissions (i.e., equipment that is powered by electric or natural gas engines instead of diesel or gasoline reciprocating engines) will be used as much as feasible. Electric engines have been reported to have lower noise levels than internal combustion engines. • Temporary enclosures or acoustic barriers (i.e., solid sound absorber composite materials) will be used around stationary pieces of equipment. Noise barriers or enclosures will be selected with a sound transmission class of 30 or greater, in 		

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Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<p>accordance with American Society of Testing and Materials Test Method E90. Acoustical curtain enclosures can provide a sound transmission loss of 10 to 13 dBA, whereas portable solid barriers can achieve up to 33 dBA in noise reduction. Acoustic barriers will be used for all construction activities within 100 feet of closest receptors.</p> <ul style="list-style-type: none"> • Construction traffic will be routed away from residences and other sensitive receptors, as feasible. • Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment will be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. As feasible, and in compliance with the applicant's safety practices and public and worker safety provisions required in the Occupational Safety and Health Standards for the Construction Industry (29 CFR Part 1926), the applicant may also use self-adjusting, manually adjustable, or broadband back-up alarms to reduce construction noise. 		
<p><i>Impact NS-3: Permanent increase in ambient noise levels in the project vicinity.</i></p>	<p>APM NS-4: Operational Noise Control. See above.</p>	<p>See above.</p>	<p>See above.</p>
<p><i>Impact NS-4: Substantial temporary or periodic increase in ambient noise levels in the project vicinity.</i></p>	<p>APM NS-4: Operational Noise Control. See above.</p> <p>MM NS-1: Noise Reduction and Control Practices. See above.</p>	<p>See above.</p>	<p>See above.</p>

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Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
4.12 Population and Housing			
No applicable APMs or mitigation measures.			
4.13 Public Services and Utilities			
<i>Impact PS-1: Result in substantial adverse physical impacts associated with new or physically altered governmental facilities.</i>	<p>APM HZ-2: Plant Power Line Inspection and Maintenance. See above.</p> <p>APM HZ-8: Construction Safety and Emergency Response Plan. See above.</p> <p>MM HZ-2: Fire Department Review and Coordination. See above.</p>	See above.	See above.
<i>Impact PS-5: Served by a landfill without sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs.</i>	<p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. See above.</p> <p>APM HZ-7: Wood Pole Recycling and Disposal. See above.</p> <p>APM PS-2: Nonhazardous Waste Management. The applicant and SCE will ensure that nonhazardous waste materials, including wood, soil, vegetation, and sanitation waste (portable toilets) that would be generated during construction of the project components will either be re-used at the project component construction sites (e.g., clean soil used for backfill) or disposed of at an appropriately licensed offsite facility.</p>	See requirements for APMs HZ-5, HZ-7, and PS-2.	During construction
<i>Impact PS-6: Noncompliance with federal, state, or local statutes and regulations related to solid waste.</i>	<p>APM HZ-5: Hazardous Materials Use and Storage and Hazardous Waste. See above.</p> <p>APM PS-1: Site Cleanup. The applicant and SCE will direct construction contractors to perform initial site cleanup immediately following construction activities at each of the proposed project components. Initial site cleanup at each project component area will include the following:</p> <ul style="list-style-type: none"> • Removal of all construction debris; 	See requirements for APMs HZ-5, PS-1, and PS-2.	During construction

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Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	<ul style="list-style-type: none"> • Proper disposal or recycling of all construction materials and debris at appropriately licensed landfills and other offsite facilities; and • Inspection of project component sites to ensure that cleanup activities are successfully completed. <p>APM PS-2: Non-hazardous Waste Management. See above.</p>		
4.14 Recreation			
No applicable APMs or mitigation measures.			

Table ES-1 Summary of Impacts

Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
4.15 Transportation and Traffic			
<p><i>Impact TT-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</i></p>	<p>APM TT-1: Traffic Control Plan. The applicant and SCE will prepare Traffic Control Plans in accordance with the latest version of the California Joint Utility Traffic Control Manual. These Traffic Control Plans will be implemented by the applicant and SCE as needed. The Traffic Control Plans will be developed to minimize short-term construction-related impacts on local traffic and potential traffic safety hazards, and will include measures such as the installation of temporary warning signs at strategic locations near access locations for the project components. The signs will be removed after construction-related activities are completed. The Traffic Control Plans may include the following measures:</p> <ul style="list-style-type: none"> • Coordination with the City of Los Angeles, City of Santa Clarita, County of Los Angeles, or County of Ventura on any temporary land or road closures; • Installation of traffic control devices as specified in the California Joint Utility Traffic Control Manual; • Provisions for temporary alternate routes to route local traffic around construction zones; and • Consultation with emergency service providers and development of an Emergency Access Plan for emergency vehicle access in and adjacent to the construction zone. <p>APM TT-3: Commuter Plan. The applicant</p>	<ul style="list-style-type: none"> • Ensure that the applicant and SCE develop and implement a Traffic Control Plan (APM TT-1) and Commuter Plan (APM TT-3). • See additional requirements for APMs TT-1 and TT-3. 	<p>Prior to and during construction</p>

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Impact	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs)	Monitoring Requirements	Timing
	would implement a Commuter Plan that includes a designated offsite parking area that has adequate parking capacity for 150 workers (the peak construction-activity maximum not including SCE workers) and a shuttle that would transport worker crews (approximately 10 workers per trip) from the parking area to worksites.		
<i>Impact TT-2: Conflict with an applicable congestion management program including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</i>	APM TT-1: Traffic Control Plan. See above. APM TT-3: Commuter Plan. See above.	See above.	See above.
<i>Impact TT-3: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</i>	APM TT-1: Traffic Control Plan. See above.	See above.	See above.
<i>Impact TT-4: Result in inadequate emergency access.</i>	APM TT-1: Traffic Control Plan. See above. APM TT-3: Commuter Plan. See above.	See above.	See above.
<i>Impact TT-5: Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</i>	APM TT-1: Traffic Control Plan. See above. APM TT-2: Repair of Damaged Roads. The applicant and SCE will ensure that damage to existing roads that is the direct result of activities related to construction of the proposed project components will be repaired once construction is complete in accordance with local jurisdiction requirements and/or existing franchise agreements held by the applicant and SCE.	See requirements for APMs TT-1 and TT-2.	Prior to, during, and after construction