

## 4.5 Cultural Resources

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the Santa Barbara County Reliability Project (proposed project) with respect to cultural resources. For the purpose of analysis in this section, the term, “cultural resources” encompasses historical resources; archeological resources (which may be historic or prehistoric, and are a subset of historical resources); Native American resources; and paleontological resources. The applicant’s Cultural Resources Technical Report and supplemental survey information are included in Appendix I.

Below are definitions of key cultural and paleontological resources terms used in this section:

### Historical Resources

Historical resources, as defined by the California Environmental Quality Act (CEQA), are resources that are listed in, or are determined to be eligible for listing in, the California Register of Historical Resources (CRHR) or a local register, or that are otherwise determined to be historical pursuant to the CEQA Statute or Guidelines (Public Resources Code [PRC] Section 21084.1 or California Code of Regulations [CCR] Section 15064.5). A historical resource may be any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in terms of California’s architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records. Typically, historical resources are more than 50 years old.

### Archaeological Resources

As stated above, archaeological resources are a subset of the historical resources category. Archaeological sites may be considered historical resources. If not, archaeological resources may be determined to be “unique” as defined by the CEQA Statute (Section 21083.2). A unique archaeological resource is an artifact, object, or site that: (1) contains information (for which there is a demonstrable public interest) needed to answer important scientific research questions; (2) has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person. Non-unique archaeological resources are not typically addressed in Environmental Impact Reports (EIRs).

### Native American Resources

Native American resources are cultural resources such as archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, or minerals that contemporary Native Americans value and consider essential for the preservation of their traditions. Traditional culture often prohibits Native Americans from sharing the locations of these cultural resources with the public.

### Paleontological Resources

For the purpose of this EIR, “paleontological resources” refers to the fossilized plant and animal remains of prehistoric species. They are valued for the information they yield about the history of the earth and its past ecological settings. Paleontological resources represent a limited, non-renewable, impact-sensitive, scientific, and educational resource. Fossil remains such as bones,

1 teeth, shells, and leaves are found in geologic deposits (i.e., rock formations). Paleontological  
2 resources generally include the geologic formations and localities in which the fossils are collected.

### 4 4.5.1 Environmental Setting

#### 6 4.5.1.1 Historic, Archaeological, and Native America Resources

##### 8 Prehistoric, Ethnohistoric, and Historic Background

9 Information presented in this section was gathered from a review of the cultural resources  
10 technical reports that have been prepared for the proposed project (Switalski and Bardsley 2012a,  
11 2012b; Schmidt 2013; Leftwich et al. 2014); Proponent's Environmental Assessment (PEA)  
12 documents (SCE 2012); Department of Parks and Recreation site and isolate forms; Native  
13 American consultations; and a Paleontological Resources Assessment (~~SDG&E 2010c~~) (Conkling  
14 2012).

##### 16 *Prehistoric*

17 Prehistoric archaeology covers the period of time before written record; in the Santa Barbara  
18 County and Ventura County regions, this is the time before European exploration and colonization.  
19 The prehistoric period is generally divided into four periods: Paleoindian, Early, Middle, and Late.  
20 The Paleoindian period begins with the arrival of humans in the area. The Santa Barbara area,  
21 particularly the Channel Islands, figures prominently in current research on the timing and nature  
22 of human movement into the area, as evidenced by Early assemblages, many with stemmed points  
23 and crescentics (flaked crescent-shaped artifacts) dating perhaps as early as 13,000 years B.P.  
24 (Erlandson and Braje 2011). Materials found on Channel Island and early mainland sites establish a  
25 firm marine orientation for these early people. Sparse evidence of visits by the Clovis people to the  
26 coast is found in the form of a few distinctive fluted points. Clovis artifacts were long thought by  
27 archaeologists to be the oldest material in North America, but it is now known that the coastal  
28 adaptations predate Clovis.

29  
30 The Early period, dating from about 8,000 before present (BP) to about 3,350 BP, represents  
31 adaptation to the coast during the warmer and drier conditions that followed the Pleistocene.  
32 Milling stones, a type of food processing equipment, are a large part of this adaptation, and the  
33 collection of marine shellfish was important as well. Some pithouses are found from Early period  
34 sites, and mortars and pestles for pulverizing seeds are found late in the Early period (Neusius and  
35 Gross 2013:206).

36  
37 During the Middle period an emphasis on hunting of terrestrial mammals and a continued use of  
38 shellfish developed. Fishing, which is documented in the earliest sites in the Channel Islands,  
39 became more important. Trade in commodities such as shell beads, steatite (soapstone), and  
40 obsidian or volcanic glass, became important (Neusius and Gross 2013:208).

41  
42 In the Late period there is evidence of population growth, development of social inequality, and  
43 complex organization. Although there are suggestions that they date to earlier times, there is good  
44 evidence of the use of plank canoes during the Late period. Subsistence along the Pacific Coast  
45 included a heavy emphasis on marine resources, including both fish and marine mammals (Neusius  
46 and Gross 2013:208–211). The complexity noted among the ethnographic Chumash is well  
47 established in the Late period.

1 ***Ethnohistoric***

2 The Ethnohistoric period is the time for which historical accounts from explorers, missionaries,  
3 soldiers, and settlers are available for the Native American populations. The proposed project  
4 would cross lands associated with both the Ventureño and Barbareño Chumash groups. The  
5 Chumash people lived in the Santa Barbara and Ventura areas when the explorers and missionaries  
6 first came to California. These groups draw their names from the Spanish missions established in  
7 their areas, San Buenaventura (1782) and Santa Barbara (1786) (Grant 1978a:Fig. 1, Grant  
8 1978b:505). The Chumash were complex hunter-gatherers with evidence of hereditary leadership,  
9 ownership of resources, social inequality (a class structure), and large semi-sedentary to sedentary  
10 villages. The larger Chumash territory included the four northern Channel Islands, and trade with  
11 the islands using the plank canoe was important (Neusius and Gross 2013:210–211).

12  
13 The Chumash were a focus of Spanish missionization activities, with many individuals becoming  
14 assimilated into the mission culture. As a result, many Native Americans were overlooked when  
15 reservations were being established and are not federally recognized. The Santa Ynez Reservation  
16 in Santa Barbara County is home to the federally recognized Santa Ynez Band of Chumash, and  
17 Chumash descendants are enrolled with the federally recognized Tejon Indian Tribe of California.  
18 There are a number of Chumash groups still seeking federal recognition. Consultation with  
19 descendants is discussed in Section 4.5.1.4.

20  
21 ***Historic***

22 Technically, the Historic era begins with the exploration of California, starting in 1542 with João  
23 Rodrigues Cabrilho (more commonly known as Juan Rodriguez Cabrillo) (Neusius and Gross  
24 2013:218), although sustained contact did not occur until the establishment of the Spanish Mission  
25 system in 1769. The Chumash were brought into the mission system, where they were taught  
26 Christianity and became part of the economic system of the missions. They were responsible for  
27 constructing the buildings of the missions, raising the crops and tending the herds, and  
28 participating in trades. The Spanish also built military forts or presidios, the closest of which to the  
29 proposed project area is the Santa Barbara Presidio.

30  
31 In 1821, Mexico won its independence from Spain. The missions continued to function for a time,  
32 but eventually their land was stripped away and the system ceased to function. Under Mexican rule,  
33 large tracts of land were granted to individuals as ranchos. Cattle raising, which had begun in  
34 mission times, became the economic engine of the area. Hides and tallow were exported in large  
35 quantities.

36  
37 Following the Mexican-American War (1846–1848), California came under American rule,  
38 becoming a state in 1850. The area developed as rural, agricultural land. Oil extraction was another  
39 important economic activity. The towns that grew up around Mission Buenaventura and the Santa  
40 Barbara Mission and Presidio continued grow and are now the regional population centers. The  
41 area traversed by the proposed project continues to be rural.

42  
43 **Historic, Archaeological, and Native America Literature and Records Search**

44 Cultural resource surveys for the proposed project included record searches conducted at the South  
45 Central Coastal Information Center, located at California State University, Fullerton on February 27,  
46 2012, and at the Central Coast Information Center, located at the University of California, Santa  
47 Barbara on March 1, 2012 (Switalski and Bardsley 2012a, 2012b). The purpose of the records  
48 search was to determine the extent of previous investigations within 0.5 miles of the

subtransmission corridor and to determine whether previously documented prehistoric or historic archaeological sites, isolated findings, architectural resources, cultural landscapes, or ethnic resources exist within the project area. The reviewed documentation included survey and evaluation reports, archaeological site records, historic maps, the California Points of Historical Interest, the California Historical Landmarks, the CRHR, the National Register of Historic Places (NRHP), and the California State Historic Resources Inventory listings.

The results of the records search indicated that ~~13~~ 30 cultural resource studies have been previously conducted within portions of the project area or within 200 feet of the project area (Table 4.5-1), including one study conducted for the proposed project that occurred directly within the alignment of Segments 3A, 3B, and 4 (Schmidt 2006). ~~An additional~~ Over 145 additional ~~54~~ studies have been conducted within ~~0.5~~ 1 miles of the project area.

**Table 4.5-1 Cultural Resources Studies Previously Conducted within 200 feet of the Project Area**

Segment	Author	Year	Report Number
<u>1</u>	<u>Lopez</u>	<u>1977</u>	<u>VN-00846</u>
<u>1</u>	<u>Lopez</u>	<u>1979</u>	<u>VN-01932</u>
<u>1</u>	<u>Clewlow</u>	<u>1978</u>	<u>VN-00127</u>
1	Chambers Group	1982	VN-00421
<u>1</u>	<u>Wilcoxon</u>	<u>1984</u>	<u>VN-00444</u>
<u>1</u>	<u>Brown</u>	<u>1987</u>	<u>VN-00515</u>
1	Foster et al.	1989	VN-00731
1	NCPA	1989	VN-00773
1	Singer	1986	VN-00494
1, 2	Fleagle	1998	VN-01675
<u>2</u>	<u>King et al.</u>	<u>1989</u>	<u>VN-01135</u>
<u>2</u>	<u>Dillon</u>	<u>1998</u>	<u>VN-01334</u>
<u>2</u>	<u>Maki</u>	<u>2009</u>	<u>VN-02785</u>
<u>2</u>	<u>Bonner</u>	<u>2010</u>	<u>VN-02953</u>
3A	Santoro and Toren	1992	SR-1288
3A	Schmidt	2005	-
3A	Wilcoxon	1976	SR-0850
<u>3A</u>	<u>Kiaha</u>	<u>2006</u>	<u>SR-03621</u>
3A, 3B	Waldron	1986	SR-1154
3A, 4	Maki	2000	SR-2573
3B, 4	Wlodarski	2008	VN-02791
4	Maki	2002	SR-2848
<u>4</u>	<u>Giambastiani</u>	<u>2003</u>	<u>SR-2986</u>
4	Schmidt	2006	-
<u>4</u>	<u>Corbett</u>	<u>2008</u>	<u>SR-5008</u>
<u>4</u>	<u>Corbett</u>	<u>2008</u>	<u>SR-5009</u>
<u>4</u>	<u>Delu</u>	<u>2010</u>	<u>VN-02790</u>
<u>4</u>	<u>Williams</u>	<u>2010</u>	<u>VN-02792</u>
--	<u>Ivie</u>	<u>1976</u>	<u>VN-00076</u>

~~Five-Ten~~ previously documented cultural resources are believed to be present within the survey area: ~~CA-VEN-979, 56-100200, CA-VEN-1109H, CA-SBA-107, and CA-SBA-3814~~. These resources are described in Section 4.5.1.3, Survey. In addition, 33 previously documented cultural resources have been identified within 0.5 miles of the project area.

1  
2 **Historic, Archaeological, and Native America Surveys**

3 ~~Three~~ Four Historic, Archaeological, and Native America Resources surveys were conducted for the  
4 proposed project. The methods for these surveys are summarized below.

5  
6 **Methods**

7 The first Historic, Archaeological, and Native America Resources survey was a pedestrian survey of  
8 most of the project area and was conducted between March 12 and April 5, 2012 (the Main Survey).  
9 Due to the mountainous terrain, dense vegetation, and limited access throughout much of the  
10 project area, a survey of the entire alignment was not possible. Each tower surveyed was  
11 approached by foot from the nearest point of access, generally SCE access roads, ranch roads, or  
12 private access roads. Due to the varying degree of slope, terrain, access constraints, and variety of  
13 existing roads (paved, dirt, gravel), survey crews employed different methods for surveying  
14 different road segments, as described in ~~Table 4.5-3~~ Table 4.5-2.

15  
16 **Table 4.5-2 Survey Methodology Used for Access Roads within the Project Area**

Survey Category	Description	Potential Impact	Survey Methodology	Length
I	Existing paved or gravel roads. Roads located on steep (>30°) slope, and existing private roadways, such as driveways near private residences.	No or very little impact	As determined using the surveyors' professional judgment, spot checks were conducted at locations along routes and areas that could potentially yield archaeological resources, or areas where resources were previously identified/recorded. Very limited survey coverage.	10.8 miles (130 acres)
II	Ranch/orchard roads within citrus/avocado orchards or ranches. Moderately disturbed.	Moderate impact within an already disturbed context	As determined using the surveyors' professional judgment, more frequent spot checks (20- to 25-meter transects) along routes that could yield resources associated with ranching/ farming or previously identified/recorded resources. Moderate survey coverage.	36.7 miles (437 acres)
III	Roads proposed for construction, roads near existing waterways, and roads that appear to intersect areas with no or very little previous disturbance.	Potentially high impact to areas with little or no previous disturbance	Complete 100% pedestrian survey with 10- to 15-meter transects.	23.9 miles (285 acres)

1 Each accessible structure location, 60.6 linear miles of access roads, and approximately 9 miles of  
 2 the subtransmission corridor were inventoried for cultural resources. The Main Survey included a  
 3 100-foot-wide buffer on either side of the centerline of the subtransmission line corridor; a 100-  
 4 foot radius around each structure; and a 33-foot buffer on either side of the proposed and existing  
 5 access roads. Survey crews conducted a limited inventory of an additional 10.8 miles of access  
 6 roads that were either paved or located on very steep slopes (Survey Category I). Twenty-one  
 7 structure locations, 9.1 miles of access roads, and approximately 24 miles of the subtransmission  
 8 corridor were not inventoried due to inaccessible terrain, washed out access roads, or access  
 9 restrictions from private landowners. Three new resources were identified during this survey and  
 10 are listed in Table 4.5-4 Table 4.5-3 and discussed further below.

11  
 12 The second survey included portions of the project area located within the Los Padres National  
 13 Forest that could not be surveyed until a permit was obtained and was conducted on July 23, 2012  
 14 (Switalski and Bardsley 2012b). It included the three pole locations within the forest, along with a  
 15 100-foot radius around each of the three poles, to the extent possible, given slope and vegetation  
 16 considerations. The spans between poles and many of the proposed access roads were judged by  
 17 the surveyors to be too steep or too thickly vegetated to access. Of the 14.4 acres of the project area  
 18 located in Los Padres National Forest, 2.7 acres were surveyed, and the remaining 11.7 acres were  
 19 not, due to slope and vegetation issues. No new resources were identified during this survey.

20  
 21 The third survey was conducted on March 18 and 19, 2013; however, the project design has since  
 22 been modified, and the area surveyed has been eliminated from the project site. Therefore, the  
 23 results on this survey effort are not discussed further.

24  
 25 In 2014, the fourth survey was conducted by Garcia and Associates (GANDA) and included 505  
 26 acres of the proposed project area broken down into 94 discrete survey areas. New records  
 27 searches were conducted for this survey at CCIC and SCCIC. The survey was conducted using 15-  
 28 meter transects where possible, but steep slopes and dense vegetation hampered the use of such  
 29 transects for most of the survey area. Due to slopes and vegetation, fewer than half of the 94 survey  
 30 areas could be completely surveyed. One new site was recorded during this survey.

31  
 32 During the Main Survey and the 2014 survey, an attempt was made to find each of the five-ten  
 33 previously documented cultural resources sites that were identified as being on or near the survey  
 34 area. Table 4.5-3 4.5-4 lists the new resources and those originally recorded within the project area  
 35 covered by the Main Survey and the 2014 survey.

**Table 4.5-3 Cultural Resource Sites Recorded During Project Surveys at Tower Sites or on Access Roads**

Segment	Trinomial/ Temporary	Primary	Component	Description	Comments
1	CA-VEN-979	56-000979	Prehistoric	Lithic Deposit	Site is currently destroyed
1	N/A	56-100200	Prehistoric	Pestle (Isolate)	Isolate was not relocated
1	CA-VEN-58		Prehistoric	Large habitation site with burials	Appears to be eligible for the CRHR. No project components would be sited within the area; however, Segment 1 would span within less than

**Table 4.5-3 Cultural Resource Sites Recorded During Project Surveys at Tower Sites or on Access Roads**

Segment	Trinomial/ Temporary	Primary	Component	Description	Comments
					a half mile of the site.
1	CA-VEN-22	56-000022	Prehistoric	Scattered shell fragments	Probably fossil rather than cultural
1	CA-VEN-23	56-000023	Prehistoric	Scattered shell fragments	Probably fossil rather than cultural
1	CA-VEN- 1003	56-001003	Prehistoric	Five pieces of debitage	Not relocated during the survey
2	CA-VEN- 1109H	56-001109	Historic	Railroad	Resource has been destroyed
Between 3B and 4	CA-SBA-2	42-000002	Prehistoric	Large village site	Probably destroyed
North of 2 and 3B	GANDA-1 <sup>1</sup>	N/A	Prehistoric	Habitation with two loci	Condition and integrity undetermined—impacts from earthmoving
4	SBCRP-1 <sup>1</sup>	N/A	Historic	Culvert	Ineligible for CRHR
4	SBCRP-2 <sup>1</sup>	N/A	Historic	Retaining Wall	Ineligible for CRHR
4	SBCRP-3 <sup>1</sup>	N/A	Historic	Santa Clara-Ojai-Santa Barbara 66 kV Subtransmission Line structures	Requires formal evaluation for eligibility. Ineligible for CRHR
4	CA-SBA-107	42-000107	Prehistoric	Rock Shelters	Determined to be located outside of project area
4	CA-SBA-3814	42-003814	Prehistoric	Lithic Scatter	Determined to be located outside of project area
4	CA-SBA-3587	42-003587	Prehistoric	Habitation	Site consists of a core area and an northern extension with less cultural material

Note:

<sup>1</sup> Newly Recorded Resource

1  
2  
3  
4  
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10

**66-kV Subtransmission Lines**

**Segment 1**

Survey crews inventoried the area around each tower location in Segment 1. The topography along the alignment was dominated by steep hillsides intersected by ravines and gullies, and each structure was generally situated in an area that was mechanically disturbed and leveled with vegetation cleared for maintenance access.

The additional access road survey on the Bonsall property is also part of Segment 1.

1 **CA-VEN-979.** Site CA-VEN-979 was originally documented as a small lithic scatter<sup>1</sup> with two  
2 unidentified bone fragments located on top of a ridge approximately 66 feet (20 meters) from a  
3 subtransmission structure location. The current survey did not identify any artifacts that were  
4 reported on the original site record, despite the fact that the survey crews were able to match  
5 existing features in the vicinity of the mapped location (such as fence lines, gates, and transmission  
6 towers) with features depicted on the original site map. Several dirt roads were observed within  
7 and adjacent to the site, and the original recorders noted heavy impacts by road maintenance, cattle  
8 trails, and barbed wire (Schmidt and Wishner 1988). Given the site's location and the presence of at  
9 least four dirt roads in the area, it appears that the site may have been altered due to grading  
10 and/or ranching activities. As the resource appears to be destroyed, it is not eligible for listing in the  
11 CRHR.

12  
13 **P-56-100200.** Site P-56-100200 was originally recorded as an isolated pestle. The isolate was not  
14 relocated during the survey, and no other cultural material was identified within the vicinity of its  
15 plotted location. Isolates are not considered significant under CEQA because their context and  
16 integrity are limited and because their research potential is exhausted through detailed recording.  
17 Therefore, isolates (including P-56-100200) are not considered further in this CEQA review and are  
18 not included in the impact analysis.

19  
20 **CA-VEN-58.** Recorded first in 1949, this site was subjected to professional excavation in the early  
21 1960s (Greenwood and Browne 1963). The excavations demonstrated that the site yielded a  
22 diversity of materials and contained at least four human burials. Although much of the subsurface  
23 soil at the site had been disturbed by plowing, undisturbed soils were also present. CA-VEN-58 was  
24 not formally evaluated for eligibility for the CRHR, but based on the diversity of material recovered  
25 and the presence of human remains, it almost certainly is eligible. It is outside the alignment for  
26 Segment 1 and would not be subjected to impacts from the proposed project.

27  
28 ~~**SCE-Bonsall#1.** This newly discovered site is described as containing “constituents similar to those  
29 found at CA-VEN-58” (Schmidt 2013:11). Subsurface depth of deposits was not determined in the  
30 field, and it was noted that there was no surface indication of human burials. The site is located  
31 outside the alignment of Segment 1 and would not be subjected to impacts from the proposed  
32 project.~~

33  
34 **CA-VEN-22 and CA-VEN-23.** Recorded in 1960 as extensive shell scatters, no other cultural  
35 material was reported on the original site forms, and it was noted that the shell might be fossilized  
36 rather than cultural. Survey of the area where these were recorded for the current project failed to  
37 find any material other than shell, and it was noted that the shell was consistent with fossil shell. It  
38 was concluded that these two sites are not actually archaeological sites but are paleontological.

39  
40 **CA-VEN-1003.** Originally recorded as an artifact scatter consisting of five pieces of debitage, CA-  
41 VEN-1003 was not found during the surveys for this project.

#### 42 43 **Segment 2**

44 Four tower locations were inventoried between Santa Ana Road and Casitas Vista Road, and two  
45 additional tower locations were examined just west of Casitas Vista Road. Three tower locations  
46 were also approached from the western end of Segment 2. Each tower examined is located in a

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<sup>1</sup> *Lithic scatter* refers to a surface scatter of cultural artifacts and debris that consists entirely of stone items, stone tools, and chipped stone debris.



1 mechanically altered terrain, with leveled ridge tops and vegetation cleared to facilitate easy access.  
2 Overall, nine tower locations situated directly south of Lake Casitas were not inventoried due to  
3 difficult terrain and dense vegetation. No new cultural resources were identified within the  
4 surveyed portion of Segment 2. One previously recorded historic resource (CA-VEN-1109H) was  
5 identified west of the Casitas Substation. A new site, designated GANDA-1, was found in and  
6 adjacent to a surveyed area to the north of Segment 2 and Segment 3B.

7  
8 **CA-VEN-1109H.** Site CA-VEN-1109H is a historic railroad spur initially constructed by the Ventura  
9 River and Ojai Valley Railroad in 1898 and acquired by Southern Pacific in 1899. This railroad spur  
10 was previously documented approximately 200 feet (60 meters) west of the Casitas Substation, on  
11 the eastern bank of the Ventura River. However, the recent survey revealed that the resource is no  
12 longer in existence and that a narrow bike path (Ventura River/Ojai Valley Trail) has been  
13 constructed within its alignment. No evidence of railroad ties, rails, or any other features associated  
14 with CA-VEN-1109H was observed within the project area.

15  
16 **GANDA-1.** This newly recorded site is an artifact scatter with two loci. The western locus consists  
17 of marine shell scatter with groundstone fragments, six quartz flakes, and tools. The eastern locus  
18 has quartz flakes, quartz tools, and groundstone fragments, along with fire-affected rock and a  
19 hearth. Shell is lacking on the eastern locus. Brush clearing using earthmoving equipment has  
20 disturbed the deposits at the site.

### 21 22 **Segment 3A**

23 Segment 3A was characterized by mostly commercial land use, with citrus orchards and farms  
24 located along Highway 192. This segment was heavily disturbed from previous construction, as  
25 approximately 90 percent of Segment 3A is located adjacent to Highway 192. Approximately 0.7  
26 miles of Segment 3A, located between Shepard Mesa Road and Casitas Pass Road (State Route 150,  
27 along the border of Ventura and Santa Barbara Counties), traverses private parcels impacted by  
28 residential construction and private orchards. No cultural resources were identified during the  
29 survey of Segment 3A.

30  
31 Segment 3A is located completely within Quaternary alluvium (Conkling 2012:24). Quaternary  
32 alluvium is alluvial sediment deposited during the Pleistocene and Holocene. Humans have been  
33 present in California since the terminal Pleistocene, and Holocene alluvium was all deposited during  
34 the time that humans have been in the area. Quaternary alluvium, then, has the potential to contain  
35 buried archaeological remains. Buried sites can be particularly important in advancing knowledge  
36 of the past.

### 37 38 **Segment 3B**

39 In the eastern end of Segment 3B, the terrain consists of a relatively flat area with rolling hills and  
40 gently sloping ridgelines, currently used for cattle grazing and dominated by open pastures with  
41 oak groves located along several intermittent drainages. In the western end of Segment 3B,  
42 surveyors encountered steep hills with slopes between 40 and 45 degrees and citrus and avocado  
43 orchards, with narrow access roads running between rows of avocado and lemon trees. Overall, ~~16~~  
44 28 tower locations were inventoried along Segment 3B. The remaining 12 towers and associated  
45 access roads have not yet been inventoried. No cultural resources were identified within the  
46 surveyed portion of Segment 3B, but one previously recorded site, CA-SBA-2 was mapped in a  
47 surveyed area between Segment 3B and Segment 4.

1 CA-SBA-2. CA-SBA-2 was a large village site, but by the time the site was recorded in the 1920s, the  
2 site had been almost totally destroyed by construction of a resort. By the 1960s no trace of the site  
3 remained. Survey in the area where CA-SBA-2 was recorded confirmed that no archaeological  
4 materials were to be found.

5  
6 The six westernmost tubular steel pole locations in Segment 3B are sited in Quaternary alluvium  
7 (Conkling 2012:24). As discussed above, Quaternary alluvium has the potential to contain buried  
8 archaeological materials. There is a small area of Monterey formation that outcrops near the center  
9 of Segment 3B (Conkling 2012:25). Some strata of the Monterey formation yield cherts that were  
10 sought after as tool stone by the prehistoric peoples of the area, so quarries may be expected in  
11 some areas on the Monterey formation.

#### 12 **Segment 4**

13  
14 Survey crews encountered a wide variety of terrain and land uses throughout Segment 4, including  
15 residential, commercial, private equestrian facilities, orchards, deep valleys, ridge tops, and densely  
16 overgrown ridges and hills. Overall, 62 of 65 structures were inventoried during the survey. Survey  
17 crews attempted to locate two previously recorded archaeological resources and identified three  
18 new historic resources within Segment 4. An additional previously-recorded site, CA-SBA-3587,  
19 was located in a survey area near Segment 4.

20  
21 The portion of the project area that passes through the Los Padres National Forest is in Section 4.  
22 All three structure locations examined during the survey of the National Forest land and all of the  
23 portions of access road surveyed on the forest were found to contain no cultural resources.

24  
25 **CA-SBA-107.** Site CA-SBA-107 was originally recorded as several small rock shelters located near  
26 the top of an almost vertical stone cliff. The site was documented in 1927 by D.B. Rogers, who noted  
27 smoke blackening on the walls of all the shelters (Rogers 1927). Additionally, an asphalt-lined  
28 basket was reportedly recovered from one of the rock shelters. Maps on file at the Central Coast  
29 Information Center indicate that the site is located along an existing Segment 4 access road;  
30 however, the current survey failed to identify any large outcrops within 0.25 miles of its plotted  
31 location. Therefore, the site is believed to be plotted incorrectly, and in actuality it is located outside  
32 of the project area.

33  
34 **CA-SBA-3814.** Site CA-SBA-3814 was documented as a small lithic scatter with fire-affected rock.  
35 No cultural material was observed during the current survey. Based on components in the site  
36 description (i.e., a gate and a fence), the site appears to be plotted incorrectly, and in actuality it is  
37 located outside of the project area at least 0.5 miles away.

38  
39 **SBCRP-1.** Site SBCRP-1 is a historic period culvert which appears to have been constructed more  
40 than 50 years ago. The culvert is composed of a 4-foot-wide corrugated pipe with a 6-foot-high  
41 retaining wall located on each side of a north-south trending access road. The feature measures  
42 approximately 8 feet (2.4 meters) wide, with a rock wall on each side of the pipe. The culvert  
43 appears to be constructed of numerous "sand bags" joined together with poured cement or  
44 concrete, forming a slightly curved retaining wall on each side of the road. No artifacts or other  
45 features were identified in the vicinity of SBCRP-1. Site SBCRP-1 is located in Santa Barbara County  
46 along an existing access road of Segment 4. The resource appears to be part of a road improvement  
47 project, which may have been used to access the subtransmission structures that are part of SBCRP-  
48 3 located in Segment 4.

1 **SBCRP-2.** Site SBCRP-2 is a retaining wall that appears to have been constructed more than 50  
2 years ago. It is located in Santa Barbara County, northwest of the north-south trending access road  
3 and approximately 0.25 miles north/northeast of SBCRP-1. The wall is constructed of shaped  
4 limestone rocks and measures approximately 6 feet high by 10 feet long (1.8 meters high by 3.0  
5 meters long). Several large (4-foot, 1.2-meter) corrugated pipes are located on the east side of the  
6 road, approximately 100 feet (30 meters) from the wall. Similar to SBCRP-1, SBCRP-2 appears to be  
7 part of the road improvement used to access the subtransmission structures that are part of SBCRP-  
8 3 located in Segment 4.  
9

10 **SBCRP-3.** Site SBCRP-3 consists of the subtransmission structures that currently carry a portion of  
11 the Santa Clara-Ojai-Santa Barbara 66-kilovolt (kV) Subtransmission Line. This historic  
12 subtransmission line is located within a 4.1-mile portion of Segment 4 in Santa Barbara County. The  
13 documented portion of the subtransmission line is composed of 26 lattice steel towers, each  
14 measuring approximately 30 feet (9.1 meters) high, with a base measuring 3 by 3 feet (0.9 by 0.9  
15 meters). The line appears to have been constructed in the 1930s and is visible on the Ventura,  
16 California (1941) 30-minute series topographic quadrangle. The uniform composition of the towers  
17 suggests that relatively few improvements have taken place along the documented portion of the  
18 line; however, it is unknown whether these are the original towers constructed in the 1930s or their  
19 subsequent replacements. A historic resources evaluation was conducted for the entire  
20 transmission line that includes SBCRP-3 (Becker 2012). The transmission line and the associated  
21 towers, including SBCRP-3, were found to be ineligible for the CRHR.  
22

23 **CA-SBA-3587.** This site was recorded as a small habitation site (Maki and Carbone 2000). Flakes,  
24 cores, tools, ground stone, fire-affected rock, marine shell, and midden soil were all observed at the  
25 site. Subsurface testing and extensive surface collections were made at the site and reported by  
26 Giambastiani in 2003. This investigation defined a central core to the site which yielded finished  
27 lithic tools, groundstone, hearths, beads, and faunal material. Some of the lithic material appears to  
28 have come from beyond the immediate vicinity of the site. Human remains were also reported from  
29 the core area of the site. In addition to the core area, an area stretching to the north was defined  
30 that contained artifacts but without midden soils. In 2008, some additional testing was completed  
31 by archaeologists from the Santa Barbara Museum of Natural History. Radiocarbon dating  
32 completed by the museum indicates the main occupation was around 5000 B.P. but that there were  
33 a number of smaller occupations later in time (Corbett 2008a, 2008b).  
34

35 The eight structure locations closest to the Carpinteria Substation are located in areas of  
36 Quaternary alluvium. As noted above, this formation has the potential to contain buried  
37 archaeological material.  
38

### 39 **Getty Tap**

40 This short segment would connect Segment 1 with the existing Santa Clara- Getty transmission line.  
41 The terrain consisted of steep hills dissected by ravines and intermittent drainages. The three poles  
42 that would be replaced along the proposed Getty Tap were surveyed, and all were located in  
43 disturbed areas adjacent to existing poles. No cultural resources were encountered.  
44

### 45 **Substations**

46 The proposed project involves work at five substations of historic age: Casitas (1924–1929), Santa  
47 Barbara (1925), Carpinteria (1950), Santa Clara (1958/1973), and Goleta (1963). These substations  
48 have also been evaluated for eligibility for the CRHR (Becker 2012).

1  
2 **Carpinteria Substation.** The Carpinteria Substation was built in 1950 in a Modernistic style. The  
3 substation complex includes a single control house building that is small in scale and rectilinear in  
4 plan, with a flat roof and no windows. It also includes a multiple equipment area containing  
5 transformers and switchracks. The substation complex is one of hundreds constructed or put in  
6 service by SCE in the post-World War II period, and it is not eligible for inclusion on the CRHR or the  
7 NRHP (Becker 2012:34–35).

8  
9 **Casitas Substation.** Originally constructed between 1924 and 1929 at Casitas Springs to provide  
10 service to the unincorporated communities of Ventura, California, the Casitas Substation was  
11 initially put in service in approximately 1924 with 15-kV and 60-kV transformer racks. The complex  
12 was expanded through 1929 to include a Craftsman style cottage and garage (1924) for the  
13 property caretaker(s), and through the addition of a Classical Revival style substation building  
14 (1929). The Casitas Substation Building appears to be eligible for listing on the CRHR under CRHR  
15 Criterion 1 (events) and Criterion 3 (architecture) (Becker 2012:26–29). The existing transformer  
16 racks and switchracks at the property do not appear to contribute to the eligibility of the Casitas  
17 Substation Building.

18  
19 **Goleta Substation.** The Goleta Substation was built in 1963 in a Modernistic style and portions  
20 were modified in 1964, 1966, and 1967. The substation complex includes a control house/switching  
21 station/office, a shop/garage structure, and a large bank of transformers and associated electrical  
22 equipment. The substation complex is one of hundreds constructed or put in service by SCE in the  
23 post-World War II period, and it is not eligible for inclusion on the CRHR or the NRHP (Becker  
24 2012:38–39).

25  
26 **Santa Barbara Substation.** Originally constructed in 1925, the SCE Santa Barbara Substation was  
27 designed and constructed as a substation complex featuring a Classical Revival style substation  
28 building that may have also featured a caretaker’s cottage. Today, the property includes the 1925  
29 substation building, a circa 1920s garage built in the Craftsman style, and a utilitarian shop/garage/  
30 control room structure that appears to date to the 1960s or 1970s. The Santa Barbara Substation  
31 Building appears to be individually eligible for listing to the CRHR under Criterion 3 (architecture).  
32 The existing auto garage, and shop/garage/control room, as well as transformer racks and  
33 switchracks at the property, do not appear to contribute to the individual eligibility of the Santa  
34 Barbara Substation Building (Becker 2012:29–34).

35  
36 **Santa Clara Substation.** The Santa Clara Substation was built in 1958 in a Modernistic style and  
37 was modified in 1973. The substation complex includes a control house/switching station, a  
38 shop/crew office, a fire equipment storage structure, and several banks of transformers and  
39 associated electrical equipment. The substation complex is one of hundreds constructed or put in  
40 service by SCE in the post-World War II period, and it is not eligible for inclusion on the CRHR or the  
41 NRHP (Becker 2012:36–38).

#### 42 **Telecommunications**

43  
44 Telecommunications lines are to be strung on the 66-kV transmission structures, and only the  
45 portions of the lines entering the Santa Clara, Casitas, and Carpinteria substations would be  
46 underground. No cultural resources were found adjacent to these substations during the survey of  
47 the segments, and the stringing of line on existing subtransmission structures would not impact any  
48 cultural resources.

1 **De-energizing Structures**

2 Portions of the existing lines in all of the segments will be de-energized and left in place. This action  
3 should not result in any ground disturbance and, therefore, should have no impacts on cultural  
4 resources.

5  
6 **4.5.1.2 Native American Consultation**

7  
8 In early 2012, SCE requested that the Native American Heritage Commission (NAHC) conduct a  
9 search of the Sacred Lands File to identify cultural resources or areas of concern to Native  
10 Americans within the vicinity of the project area. The NAHC's search did not indicate the presence  
11 of any known cultural resources, and it provided a list of 21 Native American individuals and  
12 organizations that may have knowledge of cultural resources in the project area. SCE sent letters to  
13 all recommended contacts on February 27, 2012. Two individuals, Mr. Freddy Romero of the Santa  
14 Ynez Band of Mission Indians, and Ms. Beverly Salazar-Folkes (Chumash, Tataviam, Fernandeano)  
15 responded as of February 27, 2012. Mr. Romero requested a copy of the cultural resources technical  
16 reports prepared for the proposed project prior to the circulation of the project's California Public  
17 Utilities Commission's (CPUC's) CEQA document. Ms. Salazar-Folkes requested that a monitor be  
18 present during ground-disturbing activities. SCE attempted follow-up phone calls to the remaining  
19 individuals between April 11 and April 16, 2012. As a result of this attempt, Suzy Ruiz-Parra  
20 (Chumash) requested that an archaeological monitor be present if earth-disturbing activities  
21 occurred near archaeological sites, and both Randy Guzman-Folkes (Chumash, Tataviam,  
22 Fernandeano, Shoshone Paiute, Yaqui) and Melissa Parra-Hernandez (Chumash) requested that the  
23 project information be resent to them. This information was resent in early 2012 (SCE 2012).

24  
25 In January 2013, Mr. Romero contacted SCE to request another copy of the cultural resources  
26 report. Copies of all reports pertinent to the project were sent on behalf of the CPUC from Ecology  
27 and Environment, Inc.'s archaeologist in February of 2013. Upon reviewing the reports, Mr. Romero  
28 stated that he had no concerns relating to the project at that time, but provided information on a  
29 number of people in Ventura County who may have additional comments pertaining to that portion  
30 of the project. Mr. Romero provided contact information for these individuals, and Ecology and  
31 Environment, Inc.'s archaeologist contacted them by email and phone on behalf of the CPUC.  
32 Responses were received from Mr. Pat Tumamait (Chumash), Ms. Julie Tumamait (Chumash), and  
33 Mr. Alan Salazar (Chumash). Ms. Tumamait stated that she will review the CPUC document when it  
34 is published, and she identified a sensitive area within the project area.

35  
36 On May 6, 2013, the CPUC met with two members of the Chumash community who requested to  
37 meet regarding the project. Mr. Pat Tumamait and Mr. Michael Cordero discussed how the project  
38 site relates to Chumash legend and the areas of sensitivity along the project corridor.

39  
40 **4.5.1.3 Paleontological Resources**

41  
42 **Paleontology Record Search**

43 A locality search was conducted through the online database of the University of California Museum  
44 of Paleontology, located on the campus of the University of California, Berkeley. This locality search  
45 included a review of the area geology and any known paleontological resources recovered from the  
46 surrounding area, as well as the geologic units that will likely be encountered during excavation  
47 activities associated with the proposed project.

48

1 According to the locality and archival research all of the mapped formations have produced fossils  
2 and have a low to high paleontological sensitivity (Table 4.5-4 Table 4.5-2).

3 **Table 4.5-4 Geologic Units and Paleontological Sensitivity within the Project Area**

Segment	Geologic Unit	Age	Typical Fossil Types	Paleontological Resource Potential
3A, 3B, 4	Quaternary Alluvium	Quaternary	Vertebrates; Invertebrates	Low to High (Increases with Depth)
1	Las Posas Formation	Pleistocene	Marine Invertebrates, Rare Vertebrates	High
1	Santa Barbara Formation	Pliocene	Marine Invertebrates	High
1	Pico Formation	Pliocene	Marine Invertebrates	High
1	Sisquoc Formation	Pliocene	Marine Invertebrates	High
1	Monterey Formation	Pliocene	Marine Invertebrates	High
1, 2, 3B, 4	Monterey Formation	Miocene	Terrestrial Vertebrates	High
1, 2, 3B, 4	Rincon Formation	Miocene	Terrestrial Vertebrates	High
2, 3B, 4	Vaqueros Formation	Eocene- Oligocene	Terrestrial Vertebrates	High
2, 3B, 4	Sespe Formation	Eocene- Oligocene	Terrestrial Vertebrates	High
4	Coldwater Sandstone	Eocene	Marine Invertebrates, Rare Vertebrates	High

4  
5 Geologic mapping indicates that the project area contains exposures of the Coldwater sandstone,  
6 Sespe formation, Rincon formation, Monterey formation, Sisquoc formation, Pico formation, Santa  
7 Barbara formation, Las Posas formation, Quaternary alluvium, and Quaternary landslides from the  
8 Holocene (Conkling 2012).

9  
10 **Quaternary Alluvium.** Holocene and Upper Pleistocene alluvium and colluvium are present within  
11 the Coastal Plain areas of Carpinteria. These poorly consolidated silt, sand, and gravel deposits were  
12 deposited along modern drainages and piedmont alluvial fans and floodplains. Because this unit  
13 spans both the Holocene and Pleistocene Epochs, the paleontological sensitivity of the unit  
14 increases from low to high with increases in depth. Where Quaternary alluvium was deposited  
15 during the Holocene (from 10,000 years ago to the present), there is no sensitivity for fossils  
16 because fossils, by definition, are more than 10,000 years old. By contrast, fossils from Pleistocene  
17 alluvial sediments are well represented throughout the Transverse Ranges.

18  
19 **Las Posas Formation.** The Las Posas Formation is Pleistocene in age (approximately 250,000 years  
20 old). It is composed of weakly consolidated sandstones with some gravelly sand units, and is highly  
21 susceptible to landslides. This formation contains shallow water invertebrate fauna, and a ray tooth  
22 has been found in these sediments (Conkling 2012:24). The paleontological sensitivity of the unit is  
23 high.

24  
25 **Santa Barbara Formation.** The Santa Barbara Formation is an Early to Middle Pleistocene (2.5  
26 million to 750,000 years old) marine formation primarily composed of poorly consolidated  
27 claystone and shale with some areas of sandstone. This formation contains diverse marine  
28 invertebrate assemblages, although none of these have been found in the vicinity of the project area.  
29 The nearest recorded locality is approximately 4 miles west-southwest of the project area. The  
30 paleontological sensitivity of the unit is high.

1  
2 **Pico Formation.** The Pliocene to Pleistocene (approximately 3.5 to 1.0 million years old) Pico  
3 Formation was deposited in a marine environment, and is composed of both coarse-grained sand  
4 and conglomerate units, with more silt and clay dominated units in some areas. This formation  
5 contains sporadic fossil deposits consisting primarily of invertebrates such as gastropods, bivalves,  
6 arthropods, and foraminifera. The paleontological sensitivity of the unit is high.  
7

8 **Sisquoc Formation.** The Sisquoc Formation is of Upper Miocene and Lower Pliocene age  
9 (approximately 6 to 4 million years old). The formation consists of claystone, mudstone, siltstone,  
10 shale, diatomite, and conglomerates, with considerable regional variation, and was deposited in a  
11 moderately deep marine environment. Fossils have been found in this formation, primarily in the  
12 area of Lompoc approximately 50 miles to the northwest of the Project. In addition to the abundant  
13 diatoms that make up the diatomite, fossils of vertebrates such as sea lions and walrus, bony and  
14 cartilaginous fishes, and birds have been found in the Sisquoc Formation. All known fossil localities  
15 have been in areas along the coast where the Sisquoc Formation is exposed due to erosion. The  
16 paleontological sensitivity of the unit is high.  
17

18 **Monterey Formation.** The Monterey Formation is an extensive Miocene (16 to 6 million years old)  
19 oil-rich sedimentary deposit. Fossils of marine vertebrates (whales, seals, sea lions, dolphins,  
20 porpoises), fish, and birds are relatively common from the formation; however, no localities have  
21 been identified within 10 miles of the project area. The paleontological sensitivity of the unit is high.  
22

23 **Rincon Formation.** The Rincon Formation is Lower Miocene in age (24 to 17.5 million years old)  
24 and is exposed along the coastal portions of southern Santa Barbara County eastward into Ventura  
25 County. Consisting of massive to poorly bedded shale, mudstone, and siltstone, it weathers readily  
26 to a rounded hilly topography with clayey, loamy soils. The paleontological sensitivity of the unit is  
27 high.  
28

29 Shales of the Rincon Formation were deposited on the deep sea floor during the time at which the  
30 Miocene sea reached its greatest depth. Microfossils are common in the Rincon Formation, and have  
31 been helpful in dating the unit. The faunal assemblage indicates that the sea was tropical to  
32 subtropical at this time. Foraminiferal remains in particular are abundant. Both vertebrate and  
33 invertebrate fossils have been recovered. These collecting localities are approximately 5 miles south  
34 of Segment 3B. The paleontological sensitivity of the unit is high.  
35

36 **Vaqueros Formation.** The Vaqueros Formation was initially deposited during the Upper Oligocene  
37 (28 to 24 million years old). Sediments characteristic of this formation include structureless very  
38 fine to medium grained sandstone with some large cross-bedding and parallel lamination in some  
39 areas. Fossils present in the formation include invertebrates and terrestrial vertebrate specimens.  
40 The paleontological sensitivity of the unit is high.  
41

42 **Sespe Formation.** The Sespe Formation is an Oligocene and Upper Eocene (40 to 24 million years  
43 old), nonmarine, fluvial, maroon, reddish-brown, and greenish- to pinkish-gray sandstone,  
44 mudstone, and conglomerate. In the Project Area, the formation is divided into three informal  
45 subunits: upper sandstone and mudstone unit, middle conglomerate and sandstone unit, and the  
46 lower conglomerate and sandstone unit. These units are distinguished from each other mainly by  
47 differences in lithology, provenance, and age.  
48

1 Numerous vertebrate fossils have been found in the Sespe Formation, with the principal locations of  
2 the finds north of Simi Valley in Ventura County. A few of the many species associated with the  
3 Sespe Formation include *Amyndontopsis* (an Eocene rhinoceros), *Simimys*, a rodent, and the  
4 oreodont *Sespia*. The nearest known locality within the Sespe Formation is approximately 8 miles  
5 from the project area. The paleontological sensitivity of the unit is high.  
6

7 **Coldwater Sandstone Formation.** The Coldwater Sandstone Formation is an Upper and Middle  
8 Eocene sandstone of shallow marine origin (42.5 to 39.5 million years old). Sandstone beds are  
9 resistant and form hogbacks where steeply dipping. The upper part of the unit is locally  
10 conglomeratic, rich in fossil oyster shells, and recently produced a limited marine vertebrate fauna.  
11 Fossils of numerous mollusks, including many species of the genus *Turritella*, can be found in the  
12 Coldwater Sandstone Formation, particularly near the top of the formation where the water at time  
13 of deposition was shallowest. Outcrops along Old San Marcos Pass Road near the contact with the  
14 Sespe Formation are rich locations for finding remnants of these gastropods. The remnants of  
15 oyster beds can be found elsewhere near the top contact with the Sespe Formation. The  
16 paleontological sensitivity of the unit is high.  
17

### 18 **Paleontology Field Survey**

19 A field survey for paleontological resources was conducted and included viewing proposed new spur  
20 road locations and examining proposed subtransmission structure locations. Throughout the  
21 survey, exposures of native rock were examined to verify the local geology and look for fossil  
22 resources. Although no fossils were identified within the project area during the paleontological  
23 field survey, sediments consistent with the descriptions of the formations were observed in areas  
24 correspondingly mapped within those units.  
25

### 26 **66-kV Subtransmission Lines**

#### 27 **Segment 1**

28 Segment 1 crosses areas of Los Posas, Santa Barbara, Pico, Sisquoc, Rincon, and Sespe formations.  
29 Although no fossils were observed during the field survey, all these formations have a high potential  
30 to yield paleontological resources.  
31

#### 32 **Segment 2**

33 Segment 2 traverses areas of Rincon and Sespe formations. Both of these formations have a high  
34 potential to yield paleontological resources.  
35

#### 36 **Segment 3A**

37 Segment 3A crosses only one formation, Quaternary Alluvium. This formation ranges from 2.58  
38 million to 10,000 years old, although Holocene Alluvium dating to after 10,000 years ago is also  
39 present in this unit. Because of this, the potential for yielding paleontological resources is rated low  
40 to high. The younger portions have no sensitivity, but the portions that are over 10,000 years old  
41 are considered to have a moderate to high potential to yield paleontological resources.  
42

#### 43 **Segment 3B**

44 Quaternary Alluvium, as well Monterey, Rincon, and Sespe formations underlie Segment 3B. As  
45 discussed above, the younger portions of the Quaternary Alluvium are not sensitive for



1 paleontological resources, but the older (after 10,000 years ago) portions are highly sensitive. The  
2 Monterey, Rincon, and Sespe formations are also highly sensitive.

3  
4 **Segment 4**

5 Segment 4 crosses a small area of Quaternary Alluvium at its western end, runs over Sespe  
6 formation for most of its length, but crosses an area of Coldwater Sandstone, and ends with a  
7 section of Rincon formation. As discussed above, the older portions of the Quaternary Alluvium  
8 have a high sensitivity for paleontological resources, whereas the more recent (younger than  
9 10,000 years) portions have no sensitivity. The other formations crossed by this segment have high  
10 sensitivity for paleontological resources.

11  
12 **Segment 5**

13 At the completion of the project the applicant proposes to remove an additional 12 LST and two  
14 wood H-frame structures located between Segments 3B and 4. This work would occur in areas of  
15 Quaternary Alluvium, Rincon formation, Monterey formation, and Sespe formation. Quaternary  
16 Alluvium that is over 10,000 years old has a high sensitivity or paleontological resources, but  
17 younger Quaternary Alluvium is not sensitive. The other formations on which structures will be  
18 removed have high sensitivity for paleontological resources

19  
20 **Getty Tap**

21 The Getty Tap crosses Santa Barbara formation. This formation has a high sensitivity for  
22 paleontological resources.

23  
24 **Substations**

25 The proposed project involves work at five substations of historic age: Subsurface work is proposed  
26 at the Santa Clara, Casitas, and Carpinteria Substations. The work at the Goleta and Santa Barbara  
27 Substations will not entail ground-disturbing activities and are not considered in the discussion  
28 below.

29  
30 **Santa Clara Substation.** The Santa Clara Substation is located on the Las Posas formation. This  
31 formation has high sensitivity for containing paleontological resources.

32  
33 **Casitas Substation.** The Rincon formation underlies the Casitas Substation. The Rincon formation  
34 is rated as having a high sensitivity for paleontological resources.

35  
36 **Carpinteria Substation.** The Carpinteria Substation is located in an area of Quaternary Alluvium.  
37 The older portions of this alluvium, those older than 10,000 years, have a high sensitivity for  
38 paleontological resources.

39  
40 **Telecommunications**

41 Telecommunications lines are to be strung on the 66-kV transmission structures, and only the  
42 portions of the lines entering the Santa Clara, Casitas, and Carpinteria Substations within the  
43 substation perimeter would be underground. These substations are located in areas of Las Posas  
44 formation, Rincon formation, and Quaternary Alluvium. The Las Posas and Rincon formations, as  
45 well as the post-10,000 year old portions of the Quaternary Alluvium all have a high sensitivity for  
46 paleontological resources.

1  
2 **4.5.2 Regulatory Setting**  
3

4 This section summarizes federal, state, and local laws, regulations, and standards that govern  
5 cultural resources in the project area.  
6

7 **4.5.2.1 Federal**  
8

9 **National Historic Preservation Act of 1966**

10 Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of  
11 historic preservation and instituted a multifaceted program, administered by the Secretary of the  
12 Interior, to encourage the achievement of preservation goals at the federal, state, and local levels.  
13 The NHPA authorized the expansion and maintenance of the National Register of Historic Places  
14 (NRHP), established the position of State Historic Preservation Officer (SHPO) and provided for the  
15 designation of State Review Boards, set up a mechanism to certify local governments to carry out  
16 the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and  
17 created the Advisory Council on Historic Preservation (ACHP). Section 106 of the NHPA states that  
18 federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed  
19 undertakings must take into account the effect of the undertaking on any historic property that is  
20 included in, or eligible for inclusion in, the NRHP and that the ACHP must be afforded an  
21 opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal  
22 Regulations (CFR) Part 800, on such undertakings.  
23

24 **National Register of Historic Places**

25 As presented in 36 CFR 60.2, the NRHP was established by the NHPA of 1966 as “an authoritative  
26 guide to be used by federal, state, and local governments, private groups, and citizens to identify the  
27 Nation’s cultural resources and to indicate what properties should be considered for protection  
28 from destruction or impairment.” The NRHP recognizes properties that are significant at the  
29 national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant  
30 in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings,  
31 structures, and objects of potential significance must also possess integrity of location, design,  
32 setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is  
33 significant under one or more of the following criteria:  
34

- 35
- 36 • **Criterion A:** It is associated with events that have made a significant contribution to the broad  
37 patterns of our history.
  - 38 • **Criterion B:** It is associated with the lives of persons who are significant in our past.
  - 39 • **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of  
40 construction; represents the work of a master; possesses high artistic values; or represents a  
41 significant and distinguishable entity whose components may lack individual distinction.
  - 42 • **Criterion D:** It has yielded, or may be likely to yield, information important in prehistory or  
43 history.

43 Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or  
44 used for religious purposes; structures that have been moved from their original locations;  
45 reconstructed historic buildings; and properties that are primarily commemorative in nature are  
46 not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource

1 must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of  
2 exceptional importance.

#### 4 **Native American Graves Protection and Repatriation Act of 1990**

5 The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for  
6 the intentional removal and inadvertent discovery of human remains and other cultural items from  
7 federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for  
8 repatriation of human remains and associated funerary objects and sacred religious objects to the  
9 Native American groups claiming to be lineal descendants or culturally affiliated with the remains  
10 or objects. It requires any federally funded institution housing Native American remains or artifacts  
11 to compile an inventory of all cultural items within the museum or with its agency and to provide a  
12 summary to any Native American tribe claiming affiliation.

#### 14 **4.5.2.2 State**

##### 15 **California Office of Historic Preservation**

16 The State of California implements the NHPA through its statewide comprehensive cultural  
17 resources surveys and preservation programs. The California Office of Historic Preservation, as an  
18 office of the California Department of Parks and Recreation, implements the policies of the NHPA on  
19 a statewide level. The Office of Historic Preservation also maintains the California Historic  
20 Resources Inventory. The State Historic Preservation Officer is an appointed official who  
21 implements historic preservation programs within the state's jurisdictions.

##### 23 **California Register of Historical Resources**

24 The CRHR is an authoritative listing and guide to be used by state and local agencies, private groups,  
25 and citizens in identifying the existing historical resources of the state and to indicate which  
26 resources deserve to be protected, to the extent prudent and feasible, from substantial adverse  
27 change (PRC §5024.1[a]). The criteria for eligibility for listing on the CRHR are based on NRHP  
28 criteria (PRC §5024.1[b]). Certain resources are determined by the statute to be automatically  
29 included in the CRHR, including California properties formally determined eligible for, or listed in,  
30 the NRHP.

##### 32 **California Environmental Quality Act**

33 Most counties and cities in California have regulations that address paleontological resources. At  
34 the state level, CEQA requires public agencies and private interests to identify environmental  
35 consequences of their proposed projects on any object or site of significance to the scientific annals  
36 of California.

##### 38 **Public Resources Code Sections**

39 **PRC 5020–5024.** These sections are statutes that pertain to the protection of historical resources.

41 **PRC 5024.1.** This section defines historical resources and establishes the CRHR, sets forth criteria  
42 to determine resource significance, defines CRHR-eligible resources, and lists nomination  
43 procedures.

1 **PRC 5097.5, PRC 5097.9, and PRC 30244.** These sections regulate the removal of paleontological  
2 resources from state lands, define unauthorized removal of fossil resources as a misdemeanor, and  
3 require mitigation of disturbed sites, respectively.  
4

5 **PRC 5097.91 through PRC 5097.991.** These sections pertain to the establishment and authorities  
6 of the NAHC. They also prohibit the acquisition or possession of Native American artifacts or human  
7 remains taken from a Native American grave or cairn, except in accordance with an agreement  
8 reached with the NAHC, and provide for Native American remains and associated grave artifacts to  
9 be repatriated.  
10

11 **PRC 5097.98 (b) and (e).** These sections require a landowner on whose property Native American  
12 human remains are found to limit further development activity in the vicinity until conferring with  
13 the most likely descendants (as identified by the NAHC) to consider treatment options.  
14

15 **PRC 5097.993 through PRC 5097.994.** These sections establish the Native American Historic  
16 Resource Protection Act, which makes it a misdemeanor crime to perform unlawful and malicious  
17 excavation, removal, or destruction of Native American archaeological or historical sites on public  
18 or private lands.  
19

20 **PRC 6254 (r).** This section establishes the California Public Records Act, which protects Native  
21 American graves, cemeteries, and sacred places maintained by the NAHC by protecting records of  
22 such resources from public disclosure.  
23

24 **PRC 21083.2.** This section of the CEQA Statute provides for the protection of “unique”  
25 archaeological resources as defined in the Statute. If it can be demonstrated that a project will cause  
26 damage to a unique archaeological resource, the lead agency may require that reasonable efforts be  
27 made to preserved in place or avoid the resources. This section also establishes mitigation  
28 requirements for the excavation (data recovery) of unique archaeological resources. See also  
29 Section 15064.5(c) of the CEQA Guidelines (14 CCR).  
30

31 **PRC 21084.1.** This section of the CEQA Statute establishes that an adverse effect on a historical  
32 resource qualifies as a significant effect on the environment. See also Sections 15064.5 and  
33 15126.4(b) of the CEQA Guidelines (14 CCR).  
34

35 **PRC 65092.** This section provides for notice of projects in consideration for construction to be sent  
36 to California Native American tribes who are on the contact list maintained by the NAHC.  
37

#### 38 **California Code of Regulations Sections**

39 **14 CCR 1427.** This code recognizes that California’s archaeological resources are endangered by  
40 urban development and population growth and by natural forces. It declares that these resources  
41 need to be preserved in order to illuminate and increase public knowledge of the historic and  
42 prehistoric past of California.  
43

44 **14 CCR 4307.** This code states that no person shall remove, injure, deface, or destroy any object of  
45 paleontological, archaeological, or historical interest or value.  
46

47 **14 CCR 15064.5.** This section of the CEQA Guidelines recognizes that a historical resource includes:  
48 (1) a resource listed in, or determined to be eligible by, the State Historical Resources Commission  
49 for listing in the CRHR; (2) a resource included in a local register of historical resources; and (3) any

1 object, building, structure, site, area, place, record, or manuscript that a lead agency determines to  
2 be historically significant or significant in the architectural, engineering, scientific, economic,  
3 agricultural, educational, social, political, military, or cultural annals of California by the lead  
4 agency, provided the lead agency's determination is supported by substantial evidence in light of  
5 the whole record. In some cases, an archaeological resource may be considered a historical  
6 resource.

7  
8 **14 CCR 15064.5(c).** If an archaeological resource does not meet the criteria for a historical  
9 resource contained in the CEQA Guidelines Section 15064.5, it may be treated in accordance with  
10 the provisions of PRC Section 21083.2 if it is a "unique" archaeological resource. If an archaeological  
11 resource is neither unique nor historical, effects of the proposed project on the resource would not  
12 be considered a significant effect.

13  
14 **14 CCR 15126.4(b).** This section of the CEQA Guidelines establishes mitigation guidelines for  
15 effects on historical resources and historical resources of an archaeological nature.

#### 16 **Health and Safety Code (HSC)**

17  
18 **HSC 7050 through HSC 7054.** These sections are statutes that pertain to disturbance and removal  
19 of human remains, felony offenses related to human remains, and depositing human remains  
20 outside of a cemetery.

21  
22 **HSC 8010 through HSC 8011.** These HSC sections establish the California Native American Graves  
23 Protection and Repatriation Act, which is consistent with and facilitates implementation of the  
24 federal Native American Graves Protection and Repatriation Act.

#### 25 **Senate Concurrent Resolutions**

26  
27 **Number 43.** This resolution requires all state agencies to cooperate with programs of  
28 archaeological survey and excavation and to preserve known archaeological resources whenever it  
29 is reasonable to do so.

30  
31 **Number 87.** This resolution provides for the identification and protection of traditional Native  
32 American resource-gathering sites on state land.

#### 33 **Penal Code Section 622 (Destruction of Sites)**

34  
35 This code establishes as a misdemeanor the willful injury, disfiguration, defacement, or destruction  
36 of any object or thing of archaeological or historical interest or value, whether situated on private or  
37 public lands.

#### 38 **Paleontological Resources Under CEQA**

39  
40 Although paleontological resources relate to geological conditions (that is, they are usually found  
41 only in sedimentary rock or soils), the CEQA Appendix G checklist includes this analysis under the  
42 cultural resources category. Except for the checklist, there are no state laws, regulations, or  
43 standards applicable to paleontological resources on private property.

1 **4.5.2.3 Regional and Local**  
2

3 The CPUC has sole and exclusive state jurisdiction over the siting and design of the proposed  
4 project. The CPUC has adopted General Order (GO) 131-D to regulate the construction of electric  
5 public utility facilities. GO 131-D, Section XIV.B. states that "...local jurisdictions acting pursuant to  
6 local authority are preempted from regulating electric power line projects, distribution lines,  
7 substations, or electric facilities constructed by public utilities subject to the Commission's  
8 jurisdiction." GO 131-D, Section XV states that "A coastal development permit shall be obtained  
9 from the California Coastal Commission for development of facilities subject to this order in the  
10 Coastal Zone." As part of its environmental review process, SCE considered local plans and policies  
11 and local land use priorities and concerns. These are discussed below.  
12

13 **Santa Barbara County Coastal Land Use Plan, Archaeological and Historical Policies**

14 The Santa Barbara County Coastal Land Use Plan contains a number of policies related to historical  
15 and archaeological resources, including:  
16

17 **Policy 10-1.** *All available measures, including purchase, tax relief, purchase of development*  
18 *rights, etc., shall be explored to avoid development on significant historic, prehistoric,*  
19 *archaeological, and other classes of cultural sites.*

20 **Policy 10-2.** *When developments are proposed for parcels where archaeological or other cultural*  
21 *sites are located, project design shall be required which avoids impacts to such cultural sites if*  
22 *possible.*

23 **Policy 10-3.** *When sufficient planning flexibility does not permit avoiding construction on*  
24 *archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation*  
25 *shall be designed in accord with guidelines of the State Office of Historic Preservation and the*  
26 *State of California Native American Heritage Commission.*

27 **Policy 10-4.** *Off-road vehicle use, unauthorized collecting of artifacts, and other activities other*  
28 *than development which could destroy or damage archaeological or cultural sites shall be*  
29 *prohibited.*

30 **Policy 10-5.** *Native Americans shall be consulted when development proposals are submitted*  
31 *which impact significant archaeological or cultural sites.*

32  
33 **Santa Barbara County Comprehensive Plan, Land Use Element, Historical and Archaeological Sites**  
34 **Policies**

35 The Santa Barbara County Comprehensive Plan, Land Use Element contains a number of policies  
36 related to historical and archaeological resources, including:  
37

38 **Policy 1.** *All available measures, including purchase, tax relief, purchase of development rights,*  
39 *and others, shall be explored to avoid development on significant historic, prehistoric,*  
40 *archaeological, and other classes of cultural sites.*

41 **Policy 2.** *When developments are proposed for parcels where archaeological or other cultural*  
42 *sites are located, project design shall be required which avoids impacts to such cultural sites if*  
43 *possible.*

44 **Policy 3.** *When sufficient planning flexibility does not permit avoiding construction on*  
45 *archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation*

1 *shall be designed in accord with guidelines of the State Office of Historic Preservation and the*  
2 *State of California Native American Heritage Commission.*

3 **Policy 4.** *Off-road vehicle use, unauthorized collection of artifacts, and other activities other than*  
4 *development which could destroy or damage archaeological or cultural sites shall be prohibited.*

5 **Policy 5.** *Native Americans shall be consulted when development proposals are submitted which*  
6 *impact significant archaeological or cultural sites.*

## 8 **Ventura County General Plan**

9 The Ventura County General Plan contains a number of goals and policies related to paleontological  
10 and cultural resources. The goals contained in the General Plan are as follows:

11  
12 **Goal 1.** *Identify, inventory, preserve, and protect the paleontological and cultural resources of*  
13 *Ventura County (including archaeological, historical, and Native American resources) for their*  
14 *scientific, educational, and cultural value.*

15 **Goal 2.** *Enhance cooperation with cities, special districts, other appropriate organizations, and*  
16 *private landowners in acknowledging and preserving the County's paleontological and cultural*  
17 *resources.*

18  
19 The policies contained in the Ventura County General Plan that may apply to nondiscretionary  
20 developments are as follows:

21  
22 **Policy 3.** *Mitigation of significant impacts on cultural or paleontological resources shall follow the*  
23 *Guidelines of the State Office of Historic Preservation, the State NAHC, and shall be performed in*  
24 *consultation with professionals in their respective areas of expertise*

25 **Policy 4.** *Confidentiality regarding locations of archaeological sites throughout the County shall*  
26 *be maintained in order to preserve and protect these resources from vandalism and the*  
27 *unauthorized removal of artifacts.*

28 **Policy 6.** *The Building and Safety Division shall employ the State Historic Building Code for*  
29 *preserving historic sites in the county.*

## 30 31 **City of Carpinteria General Plan**

32 The City of Carpinteria General Plan contains a number of policies related to historical and  
33 archaeological resources, including:

34 **OSC-16:** *Carefully review any development that may disturb important archaeological or*  
35 *historically valuable sites.*

## 36 37 **4.5.3 Impact Analysis**

### 38 39 **4.5.3.1 Methodology and Significance Criteria**

40  
41 The cultural resources technical reports that have been prepared for the proposed project  
42 (Switalski and Bardsley 2012a, 2012b; Schmidt 2013; Leftwich et al. 2014); Proponent's  
43 Environmental Assessment (PEA) documents (SCE 2012); and Department of Parks and Recreation  
44 site and isolate forms were all reviewed as research sources for this document. Additional  
45 background research was also conducted on the general project area and on CEQA statutes to

1 ensure that impact assessments and mitigation measures are adequate to appropriately mitigate  
2 the impacts to resources.

3  
4 Cultural resources records searches were conducted for the PEA at the South Central Coastal  
5 Information Center, located at California State University, Fullerton, and at the Central Coast  
6 Information Center, located at the University of California, Santa Barbara for the cultural resources  
7 surveys (as noted previously) to determine the extent of previous cultural resources investigations  
8 within 0.5 miles of the transmission lines, to determine whether any archaeological sites or  
9 architectural resources have been previously identified within the area. Materials reviewed as part  
10 of the records search included archaeological site records, historic maps, and listings of resources  
11 on the NRHP, the CRHR, California Points of Historical Interest, California Landmarks, and National  
12 Historic Landmarks.

13  
14 For paleontological resources, the paleontological resources report (Conkling 2012) was reviewed.  
15 This report included the results of a locality search conducted through the online database of the  
16 University of California Museum of Paleontology and review of pertinent geological maps, as well as  
17 the results of the field survey conducted for the proposed project.

18  
19 The significance criteria were defined based on the checklist items in Appendix G of the CEQA  
20 Guidelines. An impact is considered significant if the project would:

- 21  
22 a) Cause a substantial adverse change in the significance of a historical resource as defined in  
23 §15064.5;
- 24 b) Cause a substantial adverse change in the significance of an archaeological resource  
25 pursuant to §15064.5;
- 26 c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic  
27 feature; or
- 28 d) Disturb any human remains, including those interred outside of formal cemeteries.

29  
30 Cultural resources include archaeological and historic objects, sites and districts, historic buildings  
31 and structures, and sites and resources of concern to local Native Americans and other ethnic  
32 groups. Cultural resources that meet the criteria of eligibility for the CRHR are termed “historic  
33 resources.” Archaeological resources that do not meet CRHR criteria also may be evaluated as  
34 “unique”; impacts on such resources could be considered significant, as described below.

35  
36 A site meets the criteria for inclusion on the CRHR if:

- 37  
38 1. It is associated with events that have made a significant contribution to the broad patterns  
39 of California’s History and Cultural Heritage;
- 40 2. It is associated with the life or lives of a person or people important to California’s past;
- 41 3. It embodies the distinctive characteristics of a type, period, region, or method of  
42 construction, or represents the work of an important creative individual, or possesses high  
43 artistic values; or
- 44 4. It has yielded, or may be likely to yield, information important to prehistory or history.

45  
46 A resource eligible for the CRHR must meet one of the criteria of significance described above and  
47 retain enough of its historic character or appearance (integrity) to be recognizable as a historical



1 resource and to convey the reason for its significance. It is possible that a historic resource may not  
2 retain sufficient integrity to meet the criteria for listing in the NRHP, but it may still be eligible for  
3 listing in the CRHR.

#### 4 5 **4.5.3.2 Applicant Proposed Measures**

6  
7 The applicant has committed to the following applicant proposed measures (APMs) as part of the  
8 design of the proposed project (see Chapter 2, Table 2-10 for a full description of each APM):  
9

10 **APM CUL-1: Avoidance, Minimization, and Mitigation.** Potential project-related effects on historical  
11 resources may be mitigated or reduced to a less than significant level by implementing SCE's  
12 cultural resources Unanticipated Discovery Plan and employing one or more standard practice  
13 mitigation scenarios including, but not limited to:  
14

- 15 • Prehistoric Resources
  - 16 – avoid where feasible (avoidance by design, preserve in place, capping)
  - 17 – minimize (reduction of Area of Direct Impact/Effect)
  - 18 – mitigate (historic context statement, data recovery)
- 19 • Historic Resources
  - 20 – avoid where feasible (avoidance by design, preserve in place, capping)
  - 21 – minimize (reduction of Area of Direct Impact/Effect)
  - 22 – mitigate (historic context statement, data recovery)
- 23 • Historic Architecture/Utility Infrastructure
  - 24 – avoid where feasible (avoidance by design, preserve in place)
  - 25 – minimize (reduction of Area of Direct Impact/Effect)
  - 26 – mitigate (historic context statement, Historic American Engineering Record, Historic  
27 American Building Survey, advanced California Department of Parks and Recreation  
28 recordation)

29  
30 The applicant's Unanticipated Discovery Plan would describe the procedures to be followed in the  
31 event that previously unidentified cultural resources are discovered during construction of the  
32 proposed project. If previously unidentified cultural resources are discovered during construction,  
33 personnel would be instructed to suspend work in the vicinity of the find.  
34

35 The resource would then be evaluated for listing in the CRHR by a qualified archaeologist, and, if the  
36 resource is determined to be eligible for listing in the CRHR, either the resource would be avoided  
37 or mitigated. ~~appropriate archaeological protective measures would be implemented.~~ If human  
38 skeletal remains are uncovered during construction of the proposed project, the applicant and/or  
39 its contractors shall immediately halt all work in the immediate area, contact the applicable County  
40 Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section  
41 15064.5 (e)(1) of the CEQA Guidelines.  
42

43 Per Health and Safety Code 7050.5, upon the discovery of human remains, there shall be no further  
44 excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent

1 remains. If the applicable County Coroner determines that the remains are Native American, it is  
2 anticipated that the coroner would contact the Native American Heritage Commission in accordance  
3 with Health and Safety Code Section 7050.5(c) and Public Resources Code 5097.98 (as amended by  
4 Assembly Bill 2641). In addition, the applicant shall ensure that the immediate vicinity where the  
5 Native American human remains are located is not damaged or disturbed by further development  
6 activity until the applicant has discussed and conferred, as prescribed in Public Resources Code  
7 5097.98, with the most likely descendants regarding their recommendations.  
8

9 **APM CUL-2:** Paleontological Resources Management Plan (PRMP). SCE shall prepare and  
10 implement a PRMP that would include, but not be limited to: preconstruction coordination;  
11 recommended monitoring methods; emergency discovery procedures; sampling and data recovery  
12 methods, if needed; museum storage coordination for any specimens and data recovered; and  
13 reporting requirements. The PRMP would also provide for sediment screening, fossil preparation,  
14 curation, and preparation of a report detailing the results of the work. In addition, the PRMP would  
15 specify monitoring requirements such as the presence of a paleontological monitor when work is  
16 being performed at formations with high paleontological sensitivity. If very few or no fossil remains  
17 are found during ground-disturbing activities, monitoring time can be reduced or suspended  
18 entirely, per recommendations of the paleontological field supervisor.  
19

20 **APM CUL-3:** A cultural resources survey of those areas that could not be previously accessed would  
21 be conducted prior to the start of construction. These surveys would identify and/or address any  
22 potential sensitive cultural resources that may be impacted by the Project, including the substation  
23 sites, subtransmission line and telecommunication cable routes, wire stringing locations, access and  
24 spur roads, drilling and crane pads, and staging yards.  
25

#### 26 4.5.3.3 Environmental Impacts

#### 27 **Impact CR-1: Cause a substantial adverse change in the significance of a historical resource** 28 **as defined in §15064.5.**

29 LESS THAN SIGNIFICANT WITH MITIGATION  
30

31  
32 Construction activities could impact known and unknown historical resources. Data collected from  
33 the records search and from surveys revealed that historical resources have been documented  
34 within the proposed project area. The surveys also recorded the presence of previously unrecorded  
35 sites. With the exception of cultural resource sites CA-VEN-58 and CA-SBA-3587, the surveys  
36 indicated that the previously recorded sites have either been destroyed, or appear to have been the  
37 subject of recording errors such that they are actually outside the project area, or are not  
38 archaeological sites but fossil shell sites. CA-VEN-58 is located outside the alignment for Segment 1  
39 and would not be impacted by the proposed project. CA-SBA-3587 is in an area proposed as a  
40 helicopter landing area.  
41

42 Cultural resource sites ~~SBCRP-1, and SBCRP-2, SBCRP-3, and GANDA-1~~ were recorded as a result of  
43 the surveys for the proposed project. ~~SBCRP-1, SBCRP-2 and SBCRP-3 and~~ have been determined to  
44 be ineligible for inclusion on the CRHR. Site GANDA-1 has not been evaluated for eligibility;  
45 however, the project has been redesigned to avoid the sensitive portions of the GANDA-1 site.  
46 ~~Cultural resource site SBCRP-3 was also recorded as a result of the surveys for the proposed project~~  
47 ~~and requires formal evaluation for eligibility for CRHR. SCE Bonsall#1 was located on a survey for~~  
48 ~~a road that is no longer part of the proposed project (Schmidt 2013). It, too, is outside the~~  
49 ~~alignment of Segment 1 and would not be impacted by the proposed project.~~ It is important to note

1 that substantial portions of the project area remain unsurveyed. It is possible that currently  
2 unrecorded sites may exist in these unsurveyed areas. The applicant would implement APM CUL-1  
3 and APM CUL-3, which would require the applicant to conduct cultural surveys for all areas not  
4 previously surveyed and to avoid, minimize, and mitigate impacts to cultural resources. Potential  
5 impacts to historical resources would remain to be significant with the implementation of APMs.  
6 Implementation of mitigation measures (MM) CR-1 through MM CR-10, and MM CR-15 would  
7 require the applicant to conduct intensive-level cultural resources surveys (transects no greater  
8 than 15 meters) for all areas to be disturbed that have not already been surveyed for cultural  
9 resources and submit reports from subsequent surveys to the CPUC; establish buffers around  
10 environmentally sensitive areas; use a qualified cultural resource consultant for construction  
11 monitoring; prepare plans to outline protocols to follow when a cultural resources can't be avoided,  
12 when native American consultation is needed, and when a previously undiscovered resource is  
13 found; and provide cultural resource training to all construction workers. Impacts under this  
14 criterion would be reduced to less than significant with mitigation.

15  
16 **Impact CR-2: Cause a substantial adverse change in the significance of an archaeological  
17 resource pursuant to §15064.5.**

18 LESS THAN SIGNIFICANT WITH MITIGATION

19  
20 Impacts on archaeological resources from the construction of the proposed project would be similar  
21 to impacts on historical resources from construction activities as described under Impact CR-1. The  
22 applicant would implement APM CUL-1 and APM CUL-3, which would require the applicant to  
23 conduct cultural surveys for all areas not previously surveyed and to avoid, minimize, and mitigate  
24 impacts to cultural resources. Potential impacts to archaeological resources would remain to be  
25 significant with the implementation of APMs. The impacts would be reduced to less than significant  
26 with the implementation of MM CR-1 through MM CR-10, and MM CR-15.

27  
28 **Impact CR-3: Directly or indirectly destroy a unique paleontological resource or site or  
29 unique geologic feature.**

30 LESS THAN SIGNIFICANT WITH MITIGATION

31  
32 The proposed project would include ground disturbance in geologic units with high potential to  
33 contain paleontological resources (Table 4.5-2) (Table 4.5-4). The applicant would implement APM  
34 CUL-2, which would require the applicant to prepare a PRMP that would outline monitoring,  
35 testing, and data recovery protocol. However, potential impacts to paleontological resource would  
36 remain to be significant. Implementation of MM CR-11 through MM CR-15 would require the  
37 applicant to prepare the PRMP to meet additional standards and submit the plan to the CPUC for  
38 review; use a qualified paleontological consultant for construction monitoring; prepare plans to  
39 outline protocols to follow when a previously undiscovered paleontological resource is found; and  
40 provide paleontological resource training to all construction workers. Impacts under this criterion  
41 would be reduced to less than significant with mitigation.

42  
43 **Impact CR-4: Disturb any human remains, including those interred outside of formal  
44 cemeteries.**

45 LESS THAN SIGNIFICANT WITH MITIGATION

46  
47 A review of records and field studies in the proposed project area has revealed that potential  
48 disturbance of human remains is possible. The applicant would implement APM CUL-1 and APM  
49 CUL-3, which would require the applicant to conduct cultural surveys for all areas not previously

1 surveyed and to avoid, minimize, and mitigate impacts to human remains. Potential impacts to  
2 human remains would remain to be significant with the implementation of APMs. Impact to human  
3 remains would be reduced to less than significant with the implementation of MM CR-1 through  
4 MM CR-10.

#### 6 4.5.4 Mitigation Measures

8 **MM CR-1: Additional Cultural Resources Surveys.** Prior to issuance of construction permits, the  
9 applicant will ensure that qualified archaeological consultants, as specified in the Cultural  
10 Resources Plans, will conduct intensive-level cultural resources surveys (transects no greater than  
11 ~~15~~ 40-meters) for all areas to be disturbed that have not already been surveyed for cultural  
12 resources and that, prior to the project, had been undisturbed. Reports that specify the research  
13 design, methods, and survey results will be submitted to the CPUC for review and must be accepted  
14 by the CPUC prior to the start of ground disturbance in the unsurveyed areas.

16 **MM CR-2: Avoid Known Cultural Resources.** Prior to construction, on a complete set of final  
17 project construction plans, cultural resources sites will be denoted as Environmentally Sensitive  
18 Areas by a CPUC-approved cultural resources consultant (MM CR-3). If any project-related  
19 construction or restoration activity will occur within 50 feet of CA-VEN-58, ~~SCE Bonsall#1, CA-SBA-~~  
20 ~~3587, GANDA-1~~, or any other known cultural resource site, the sites will be designated as  
21 Environmentally Sensitive Areas. ~~±~~This list is not intended to be exhaustive and may not include all  
22 sites denoted as Environmentally Sensitive Areas on the project plans. The project plans will  
23 become confidential and only be provided to approved cultural resources consultants, Native  
24 American monitors approved by a tribe (MM CR-5) for monitoring during project construction (if  
25 applicable), and the applicant's Environmental Coordinators and construction supervisors. A CPUC  
26 cultural resources specialist will approve the demarked plans prior to start of construction.

28 Prior to the start of construction activities within 100 feet of cultural resources, temporary fencing  
29 or signage will be erected, as feasible, with the approval of the CPUC. The temporary fencing or  
30 signage will be installed by or under the direct supervision of a qualified archaeologist. Fencing or  
31 signage will establish a 50-foot buffer (at minimum) from the boundary of the cultural resource site.  
32 If signs are erected, signage will not indicate that an Environmentally Sensitive Area contains  
33 cultural resources. All Environmentally Sensitive Areas will be avoided throughout construction  
34 and restoration of the proposed project to the maximum extent feasible. If a 50-foot buffer cannot  
35 be established or the areas cannot be avoided, no work will be conducted in the area until a CPUC-  
36 approved cultural resources consultant (MM CR-3) inspects the cultural resources. The CPUC-  
37 approved cultural resources consultant will communicate the findings to the SCE archaeologist who  
38 will make a preliminary determination regarding whether further investigation is required. SCE will  
39 then submit their recommendation to the CPUC for the CPUC's approval. If either SCE's cultural  
40 resources consultant or the CPUC's cultural resources consultant determines that further  
41 investigation is required, work will not be conducted in the area until testing and evaluation  
42 (MM CR-8) and, if necessary, data recovery (MM CR-9) are completed. Once construction in  
43 proximity to the Environmentally Sensitive Area is complete, the temporary fencing or signage will  
44 be removed.

46 ~~All cultural resources located within or adjacent to Environmentally Sensitive Areas will be~~  
47 ~~protected by temporary fencing prior to the start of construction activities within 100 feet of the~~  
48 ~~areas. All Environmentally Sensitive Areas will be avoided throughout construction and restoration~~  
49 ~~of the proposed project to the maximum extent feasible. If the areas cannot be avoided, no work will~~

1 ~~be conducted in the area until a CPUC-approved cultural resources consultant (MM CR-3) inspects~~  
2 ~~the cultural resources and determines whether further investigation is required. If further~~  
3 ~~investigation is required, work will not be conducted in the area until testing and evaluation (MM~~  
4 ~~CR-8) and data recovery (MM CR-9), if necessary, are completed. The temporary fencing will be~~  
5 ~~installed by or under the direct supervision of a qualified archaeologist. The fencing will surround~~  
6 ~~the site, leaving a 50-foot buffer (at minimum). No signs will be placed that indicate an~~  
7 ~~Environmentally Sensitive Area contains cultural resources. The temporary fencing will be removed~~  
8 ~~once construction in proximity to the Environmentally Sensitive Area is complete.~~  
9

10 **MM CR-3: Qualified Cultural Resources Consultants.** The applicant will retain the services of  
11 qualified professional (CPUC-approved) cultural resources consultants who meet or exceed the U.S.  
12 Secretary of the Interior qualification standards for professional archaeologists published in 36  
13 Code of Federal Regulations 61 and who have experience working in the jurisdictions traversed by  
14 components of the proposed project sufficient to identify the full range of cultural resources that  
15 may be found in the proposed project area. The consultants will also have knowledge of the cultural  
16 history of the proposed project area. The resumes and supporting information for each cultural  
17 resources consultant will be submitted to the CPUC for approval. At least one qualified cultural  
18 resources consultant must be approved by the CPUC prior to start of construction.  
19

20 **MM CR-4: Cultural Resources Plans.** Prior to construction, the applicant will submit Cultural  
21 Resources Plans for the respective project components, prepared by the approved consultant(s)  
22 (MM CR-3) for review and approval by the CPUC. The final Cultural Resources Plans shall be  
23 implemented, as specified, throughout construction and restoration. These plans will address  
24 cultural resources eligible for the CRHR that cannot be preserved by avoidance and to identify areas  
25 where monitoring of earth-disturbing activities is required. The monitoring plan shall include, at a  
26 minimum:  
27

- 28 ~~• A list of personnel to whom the plan applies.~~
- 29 • Requirements, as necessary, and plans for continued Native American involvement and  
30 outreach, including participation of Native American monitors during ground-disturbing  
31 activities as determined appropriate.
  - 32 • Brief identification and description of the general range of the resources that may be  
33 encountered.
  - 34 • Identification of the elements of a site that will lead to it meeting the definition of a cultural  
35 resource requiring protection and mitigation.
  - 36 • Identification and description of resource mitigation that will be undertaken if required.
  - 37 • Description of monitoring procedures that will take place for each project component area  
38 as required.
  - 39 • Description of how often monitoring will occur (e.g., full-time, part time, spot checking).
  - 40 • Description of the circumstances that will result in the halting of work and a statement that  
41 either the archaeological monitor or the Native American Monitor is authorized to call for  
42 work to be stopped.
  - 43 • Description of the procedures for halting work and notification procedures for construction  
44 crews.
  - 45 • Testing and evaluation procedures for resources encountered.

- Description of procedures for curating any collected materials.
- Reporting procedures.
- Contact information for those to be notified or reported to.

**MM CR-5: Native American Consultation and Participation Planning.** Prior to construction, the applicant will provide evidence to the CPUC that tribes requesting consultation with the applicant regarding the project design and impacts on cultural resources were consulted. In addition, the applicant will provide evidence to the CPUC that tribes that have expressed interest in the project during any phase (i.e., project application through end of construction and restoration) are given the opportunity to participate in additional cultural resources surveys (MM CR-1) and cultural resources monitoring when performed by a CPUC-approved cultural resources consultant (MM CR-3).

To outline the expected duties and responsibilities of all parties involved, the applicant and a CPUC-approved cultural resources consultant will submit a Native American Participation Plan prior to construction. The final Native American Participation Plan shall be implemented, as specified, throughout construction and restoration. Tribes that have expressed interest in the project prior to construction will be given the opportunity to participate in development of the plan. At minimum, the plan will specify that:

- Native American monitors, if approved by a tribe, are expected to participate in worker environmental awareness and health and safety training and follow all health and safety protocols.
- Attendance by Native American monitors during construction and restoration of the project is at the discretion of the tribe, and the absence of a Native American monitor, should the tribes choose to forgo monitoring for some reason, will not delay work.
- The Native American monitors will have the ability to notify a CPUC-approved cultural resources consultant who has the authority to temporarily stop work (MM CR-7) if they find a cultural resource that may require recordation and evaluation.
- ~~Interpretation of a find will be requested from~~ Native American monitors will have the opportunity to provide interpretation on ~~involved with~~ the discovery, evaluation, or data recovery of unanticipated finds for inclusion in the final Cultural Resources Report (MM CR-10).
- The tribes involved with preparation of the Native American Participation Plan will be given the opportunity to participate in the development of Testing and Evaluation Plans (MM CR-8) and Data Recovery Plans (MM CR-9) if the development of these plans is required.
- Native American monitors approved by a tribe for monitoring work on the project will be notified 30 days prior to start of construction of the various project components.
- The Native American monitors will be compensated for their time. If more than one tribal group wishes to participate in the monitoring, SCE, in coordination with the CPUC, will help facilitate a mutually agreeable plan for participation. ~~will work out an agreement for sharing of monitoring compensation.~~
- Define a process to inform tribes of completed cultural surveys and to provide a copy of the survey to interested tribes.

1 **MM CR-6: Construction Monitoring.** Prior to construction, the applicant will retain qualified  
2 archaeologists as specified in the Cultural Resources Plans (MM CR-4) to monitor cultural resources  
3 mitigation and ground-disturbing activities in culturally sensitive areas during construction and  
4 restoration. The archaeological monitors will work under the supervision of the qualified cultural  
5 resources consultant unless the consultant serves as monitor, as well. The archaeological monitors'  
6 credentials must be submitted to CPUC for approval prior to the notice to proceed. These areas  
7 include the Quaternary alluvium, areas adjacent to sites CA-SBA-3587, CA-VEN-58, GANDA-1, and  
8 SCE Bonsall#1, and any other resources identified in the Cultural Resources Plan. The qualified  
9 archaeologists will attend preconstruction meetings to provide comments and/or suggestions  
10 concerning monitoring plans and discuss excavation plans with excavation contractors.  
11

12 **MM CR-7: Stop Work for Unanticipated Cultural Resources Discoveries.** In the event that  
13 previously unidentified cultural resources are uncovered during implementation of the project, SCE  
14 will ensure that ground-disturbing work is halted or diverted from the discovery to another  
15 location and will notify the CPUC and the appropriate authorities. The CPUC-approved cultural  
16 resources consultant will inspect the discovery and determine whether further investigation is  
17 required. If the discovery is significant but can be avoided, and no further impacts will occur, the  
18 resource will be documented and no further effort will be required. If the resource is significant but  
19 cannot be avoided, and may be subject to further impact, the CPUC-approved cultural resources  
20 consultant, in consultation with and under the direction of the qualified archaeologist, will evaluate  
21 the significance of the resource based on eligibility for the CRHR or local registers and implement  
22 appropriate measures in accordance with the Cultural Resources Plans.  
23

24 ~~If human remains are encountered, California HSC Section 7050.5 states that no further disturbance~~  
25 ~~shall occur until the appropriate County Coroner has made the necessary findings as to origin.~~  
26 ~~Further, pursuant to California PRC Section 5097.98(b), remains shall be left in place and free from~~  
27 ~~disturbance until a final decision as to the treatment and disposition has been made. If the~~  
28 ~~appropriate County Coroner determines the remains to be Native American, the Native American~~  
29 ~~Heritage Commission must be contacted within 24 hours. The Native American Heritage~~  
30 ~~Commission must then identify the "most likely descendant(s)" within 48 hours of receiving~~  
31 ~~notification of the discovery. The most likely descendant(s) shall then make recommendations and~~  
32 ~~engage in consultations concerning the treatment of the remains as provided in PRC 5097.98.~~  
33

34 **MM CR-8: Testing and Evaluation Plan.** If any cultural resource is discovered during construction  
35 that cannot be avoided, work in the area of the find will be immediately halted as specified in  
36 MM CR-7. A CPUC-approved cultural consultant (MM CR-3) will determine if further investigation is  
37 required (MM CR-7). If so, the CPUC-approved cultural consultant will submit a Testing and  
38 Evaluation Plan to the CPUC for approval prior to further disturbance of the resource. The final  
39 Testing and Evaluation Plan shall be implemented, as specified, throughout construction and  
40 restoration. After testing and evaluation is completed, a report documenting the results will be  
41 submitted to the CPUC. If avoidance is recommended, the cultural resource will be avoided, to the  
42 maximum extent feasible. If avoidance is not possible, a Data Recovery Plan will be developed and  
43 implemented (MM CR-9).  
44

45 **MM CR-9: Data Recovery Plan.** If avoidance of a cultural resource found during project  
46 construction that is eligible for listing in the CRHR or local registers or as "unique" archaeological  
47 resources pursuant to CEQA is not feasible, a CPUC-approved cultural resources consultant (MM  
48 CR-3) (as applicable) will prepare a Data Recovery Plan that outlines the extent of excavation,  
49 recovery/salvage, curation, and recordation that will occur. The Data Recovery Plan will be

1 submitted to the CPUC for approval prior to the start of any data recovery work. Data recovery will  
2 be completed as specified in the approved Data Recovery Plan prior to continuing work within the  
3 area of the find.

4  
5 **MM CR-10: Cultural Resources Reporting.** Prior to final inspection after construction of project  
6 components has been completed, the applicant's qualified archaeologists as specified in the Cultural  
7 Resources Plans will submit reports to the CPUC summarizing all monitoring and mitigation  
8 activities and confirming that all mitigation measures have been implemented.

9  
10 **MM CR-11: Paleontological Monitoring and Treatment Plan.** Prior to start of construction, the  
11 applicant will submit a Paleontological Monitoring and Treatment Plan for each project component  
12 that is prepared by a CPUC-approved paleontological consultant (MM CR-12) to the CPUC for  
13 approval. This plan will be adapted from the Society of Vertebrate Paleontology's Standard  
14 Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources  
15 (2010) to specifically address each project component. In addition, the plan will, at minimum:

- 16  
17 ~~• Include a list of personnel to which the plan applies.~~
- 18 • Describe the criteria used to determine whether an encountered resource is significant and  
19 if it should be avoided or recovered.
  - 20 • Identify construction and restoration impact areas of moderate to high sensitivity for  
21 encountering paleontological resources and the shallowest depths at which those resources  
22 may be encountered.
  - 23 • Describe methods of recovery, preparation, and analysis of specimens, final curation of  
24 specimens at a federally accredited repository, data analysis, and reporting.
  - 25 • Identify areas with moderate to high sensitivity for encountering paleontological resources  
26 and the shallowest depths at which those resources may be encountered.
  - 27 • Briefly identify and describe the types of paleontological resources that may be  
28 encountered.
  - 29 • Identify the elements of a site that will lead to it requiring protection and mitigation and  
30 identify mitigation that will apply.
  - 31 • Describe monitoring procedures that will take place for each component of the project that  
32 requires monitoring.
  - 33 • Describe how often monitoring will occur (e.g., full-time, part time, spot checking), as well as  
34 the circumstances under which monitoring will be increased or decreased.
  - 35 • Describe the circumstances that will result in the halting of work.
  - 36 • Describe the procedures for halting work and notification procedures for construction and  
37 restoration crews.
- 38 ~~• Include testing and evaluation procedures for resources encountered.~~
- 39 • Describe procedures for curating any collected materials.
  - 40 • Outline coordination strategies to ensure that CPUC-approved paleontological consultant  
41 (MM CR-12) conduct full-time monitoring of all grading activities in sediments determined  
42 to have a moderate to high sensitivity.
  - 43 • Include reporting procedures.



- Include contact information for those to be notified or reported to.

For sediments of low or undetermined sensitivity, the plan will specify what level of monitoring is necessary. Sediments with no sensitivity will not require paleontological monitoring. The plan will define 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 an approved (MM CR-12) paleontologist.

**MM CR-12: Qualified Paleontological Consultants.** The applicant will retain the services of qualified professional paleontological consultants with knowledge of the local paleontology and the minimum levels of experience and expertise as defined by the Society of Vertebrate Paleontology's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010). The resumes and supporting information for each paleontological consultant will be submitted to the CPUC for approval. At least one qualified paleontological consultant must be approved by the CPUC prior to start of construction.

**MM CR-13: Paleontology Construction Monitoring.** Based on the Paleontological Monitoring and Treatment Plans, SCE will conduct paleontological monitoring using CPUC-approved paleontological consultant (MM CR-12). This will include monitoring any ground-disturbing activity during construction and restoration in areas determined to have high paleontological sensitivity and that have the potential to be shallow enough to be adversely affected by such earthwork as determined by the CPUC-approved paleontological consultant.

**MM CR-14: Stop Work for Unanticipated Paleontological Discoveries.** If previously unidentified paleontological resources are uncovered during implementation of the project, the applicant will ensure that ground-disturbing work is halted or diverted from the discovery to another location. A CPUC-approved paleontological consultant will inspect the discovery and determine whether further investigation is required. If the discovery is significant but can be avoided, and no further impacts will occur, the resource will be documented in the appropriate paleontological resource records and no further effort will be required. If the resource is significant but cannot be avoided and may be subject to further impact, the CPUC-approved paleontological consultant (MM CR-12) will evaluate the significance of the resource and implement appropriate measures in accordance with the Paleontological Monitoring and Treatment Plans.

**MM CR-15: Cultural and Paleontological Resources Training Requirements.** Prior to start of construction, all construction and restoration personnel involved in ground-disturbing activities and the supervision of such activities will undergo worker environmental awareness training. The cultural and paleontological resources training components of will be presented by a CPUC-approved cultural resources consultant (MM CR-3) and CPUC-approved paleontological consultant (MM CR-12). The training will describe the role of cultural and paleontological resources monitors; role of Native American monitors (if applicable); the types of cultural and paleontological resources that may be found in the proposed project area and how to recognize such resources; the protocols to be followed if cultural or paleontological resources are found, including communication protocols; and the laws relevant to the protection of cultural and paleontological resources and the associated penalties for breaking these laws. Additionally, prior to construction, CPUC-approved cultural and paleontological resources consultants will meet with the applicant's grading and excavation contractors to provide comments and suggestions concerning monitoring plans and to discuss excavation and grading plans.

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