4.5 Cultural Resources and Paleontological Resources

This section describes cultural resources (historical and archaeological resources) and paleontological resources that may exist within the Proposed Project areas, and assesses whether any component of the Proposed Project might significantly impact, change, destroy or disturb these resources. The impacts and measures that reduce impacts are discussed, where applicable.

Proposed Project components that do not involve ground disturbance or the ground disturbance is restricted to the footprint of the existing facilities were not assessed. These include the proposed Central Compressor Station, the proposed office trailer and guard house relocation, the proposed PPL, and the proposed installation of upgraded relay systems and equipment at the Newhall, Chatsworth, and San Fernando Substations. The components of the Proposed Project that could affect cultural resources includes the activities associated with the proposed SCE 66 kV sub-transmission modification originating at the Newhall Substation to the proposed SCE Natural Substation, construction of the proposed SCE Natural Substation, and the proposed modification at the San Fernando Substation where approximately four LSTs are scheduled to be replaced with engineered TSPs.

4.5.1 Existing Cultural Setting

The existing 66 kV sub-transmission corridor originates along the South Fork of the Santa Clara River and then runs south through Gavin and Weldon Canyons of the Newhall Pass between the San Gabriel and Santa Susana Mountains before it turns west and terminates in Aliso Canyon. The 66 kV sub-transmission system crosses through Section 4, Township 3 North, Range 16 West of the Newhall, California, USGS 7.5 minute topographic quadrangle, and Sections 4, 10, 13, 14, 15, 22, 23, 26, 33, and 34, and an unsectioned portion within the Los Angeles City boundary of Township 3 North, Range 16 West of the Oat Mountain, California, USGS 7.5 minute topographic quadrangle. Elevations run from 1,260 feet above MSL in the north to close to 2,700 feet above MSL at Mission Point in the south.

The proposed pole replacements associated with the San Fernando Substation are located at the north end of the San Fernando Valley between the Golden State Freeway (I-5), the San Diego Freeway (I-405), and the Ronald Reagan Freeway (State Route 118) in the city of Los Angeles. They are located in an unsectioned portion of Township 2 North and Range 15 West on the San Fernando, California, USGS 7.5 minute topographic quadrangle. Elevation is roughly 980 feet above MSL.

The proposed SCE 66 kV sub-transmission modification lies in an area where the topography varies from flat and residential in the north to steep and rugged in the south. The proposed SCE 66 kV sub-transmission modification will re-conductor segments of two existing source lines in which most poles are located on the tops of ridges and hills. Vegetation is characterized as a mix of Coastal Sage Scrub and Oak Woodland communities (Munz 1974). A few remnant stands of Big Cone Spruce can be found in the Santa Susana Mountains just north of the existing alignment. Animals found in the vicinity of the Proposed Project area include mountain lions (*Felis concolor*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and a host of other smaller mammals including raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), jack rabbit (*Lepus californicus*), and ground squirrel (*Spermophilus beecheyi*). Bird species present in the area include hawks, ravens, and flycatchers. The area surrounding the San Fernando

Substation is a highly developed urban environment. Indigenous flora and fauna have been displaced by landscaping and pavement.

A cultural resources survey of the Proposed Project area was conducted on April 23 and 26, 2009. The survey identified archaeological and historical resources within the Proposed Project area for use in determining whether the Proposed Project's effects on historic properties are in compliance with CEQA. The survey consisted of a records search and a pedestrian survey of the existing SCE 66 kV sub-transmission alignment.

4.5.1.1 Historical Periods

Early Period

Archaeologists in southern California have divided prehistory into three broad periods – the Early, Middle, and Late periods (Altschul et al., 1998; Altschul and Grenda, 2002). Early period (ca. 7000–3200 B.P.) sites appear to be adapted to wetland environments with readily abundant resources. These early groups emphasized hunting, with a flaked stone industry that included large flake and core scrapers, choppers, hammer stones, drills, and gravers (Kowta, 1969; Warren, 1968). Percussion- and pressure-flaked tools are common, as well. Ground stone is typically absent from these early deposits but present in later ones, which may reflect adaptation to changing environments through time. Milling stones that characterized this period are best suited for grinding hard seeds produced by grasses, sages, and other small, annual plants, which by nature are highly dependable and abundant food sources.

Middle Period

During the Middle period (3000–900 B.P.), inhabitants of the region had a land- and marine-based economy, focusing on large sea mammals, fish, and mollusks, as well as some terrestrial resources. One of the markers of the Middle period in the archaeological record is the increase in frequency of mortars and pestles, replacing the milling stones that dominated the Early period record. This shift most likely relates to the shift in reliance from primarily seeds to fruits and nuts (Gamble and King 1997). Settlement patterns during this period represent greater residential stability, as evidenced by the increased use of storage pits. The advent of well-defined cemeteries and larger settlements of people within the bight during the Middle period lends further evidence to increased sedentism.

Late Period

Research on the Late period (900–200 B.P.) has suggested that there was continuation of trends from the Middle period: settlement size grew, new regions and environments were occupied, and functionally specialized sites continued to appear (Leonard, 1971). As well, there was an increase in terrestrial hunting and maritime adaptations that coincided with a decrease in the importance of vegetal resources. These trends are evidenced by a lessening in the importance of milling stones, with a corresponding increase in the use of flaked lithic tools, such as projectile points, scrapers, and drills.

There appears to have been some differentiation between coastal and inland sites during the Late period. Generally, settlements appear to have been more specialized and differentiated as they related to specific

environments, leading to more-restricted locations. Whereas sites along the mainland coast might have decreased numbers from the previous period, those that remained increased in overall size.

Ethnohistory

The Proposed Project is situated within the traditional territory of both the Chumash and Gabrielino cultures. The Chumash were predominantly a coastal people but they made use of inland resources (Kroeber 1976, :550; Glassow, 1996). The Gabrielino occupied an area with a complex topography, ranging from the high peaks of the San Gabriel Mountains to the Pacific Coast and islands offshore (Bean and Smith, 1978; McCawley, 1996). Both groups were hunters and gatherers who sought large and small game, as well as numerous plant resources for food. The ethnohistoric settlement pattern consisted of permanent villages located in proximity to reliable sources of water, and within range of a variety of floral and faunal food resources, which were exploited from temporary camp locations surrounding the main village.

First contact between Native Americans in California and Europeans took place more than 450 years ago when, in 1542, Cabrillo sailed into the Santa Barbara Channel to map the coastline. Following Cabrillo's arrival, there were few encounters between Native Americans and Europeans for over two centuries. It was not until Spanish Franciscans were given charge of the frontier that missions were established and the Native American culture was assimilated into Spanish colonial culture. During the Mission period, Native Americans were forced to relocate, effectively abandoning their villages and resource territories; some groups retreated to the interior rather than succumb to the demands of resettlement.

The Mexican period, which followed the Mission period, is marked by Mexico's independence from Spain in 1821. It lasted until 1848 when the Mexican-American War ended with the signing of the Treaty of Guadalupe Hidalgo and the lands of Alta California were passed into American hands. During this period, the old Spanish mission system was dismantled by the mid-1830s, with their land holdings divided among the most-prominent citizens in the territory and ceded as land grants, or "ranchos." The Native Americans within the missions were left on their own; a few retreated to the interior, but many remained to work on the newly designated ranchos. The subsequent American Period saw an influx of settlers into the region and the demise of the old ranch way of life. Agriculture was taking hold and industry and rail lines rapidly developed.

4.5.1.2 Archaeological Records Search

Storage Field and Sub-transmission

An archaeological records search was conducted at the South Central Coastal Information Center, California State University, Fullerton. Forty-eight cultural resources studies have been conducted within a ½-mile radius of the proposed SCE 66 kV sub-transmission modification (Table 4.5-1). Eleven of these studies included portions of the Proposed Project area including a nearly 2-mile length segment through the Newhall Pass. Another survey for the Sunshine Canyon Landfill Extension project (Minch and Stickel, 1999) recorded the only archaeological site within the Proposed Project (CA-LAN-2484).

CA-LAN-2484 was investigated by E. Gary Stickel of John Minch and Associates (1999). The site consists of 1 large metate fragment and 16 smaller pieces of the same metate scattered within and

collected from nineteen 1 by 1 meter units excavated across the site. All of the artifacts were found in the top 10 centimeters. No evidence of this site or the excavation units was seen during the current survey of the Proposed Project area. The Sunshine Canyon Landfill Extension project also recorded 3 additional archaeological sites and 5 isolates within a ½-mile radius of the 66 kV sub-transmission system. These are a small processing site with mano scatter and fire-affected rock (CA-LAN-2369), a site with a mano and historical period sherds (CA-LAN-2370), a lithic and ground stone scatter (CA-LAN-2529), 3 isolated mano fragments (19-100186, 19-100187 and 19-100190), 1 whole mano (19-100188), and 1 chalcedony flake (19-100189).

Several other sites were recorded by previous surveys within the record search area but outside the current Proposed Project boundaries. These include a small hunting station (19-000802) recorded by Clay A. Singer (1977), a small temporary camp (19-000816/H) found by C. William Clewlow, Jr. (1978), Beale's Cut, a man-made notch (19-002069/H) recorded by William Hayden (1992) and the Cuesta Viejo Trail (19-002148/H) recorded by R. Sheets and A. Cole (1993).

San Fernando Substation

In July 2009 a second detailed records search for previously recorded historic properties within a ½-mile radius of the San Fernando Substation was conducted. The records search revealed four (4) previously recorded sites and one (1) California Historic Landmark, without a site designation, within one-half mile of the San Fernando Substation. One of these historic properties, archaeological site CA-LAN-169 H, encompasses the proposed work site. The boundary of site CA-LAN-169 H is defined by the structures of the Mission San Fernando located north of San Fernando Mission Boulevard between the Golden State (5), San Diego (215), and Ronald Reagan (118) Freeways.

According to prior work in the area (Foster 2004, 2005; Greenwood and Foster 1984), the Mission once included all of the land between the three freeways, as well as many more built features including garden walls and outbuildings arrayed along the current San Fernando Mission Boulevard. Portions of those built features may be preserved in the area surrounding site CA-LAN-169 H under current construction.

One other site included here, CA-LAN-2760 H, was located just north of the one-half mile search boundary, and is associated with the early 20th century activities of the San Fernando Mission Land Company.

I. Archaeological Sites

Site Number [CA-]	Other Number(s)	Date Recorded	Recorded By	Description
LAN-169 H*	19-167231	1950	Arnold Pilling	Mission San Fernando Rey de España (founded 1797). Only the "convento" structure is listed in the NRHP.
	CHL-157	1959	UCLA Archaeological Survey	
	NRHP-88002147	1970&1988		

LAN-960 H	19-150411 4-LAN-H37	1Jul1978	Bob Edberg UCLA Archaeological Survey	Mission San Fernando Dam (same as 19-150411, inaccurately mapped at SCCIC)
LAN-2006 H	19-180721 CHL-362 NRHP-66000211	Nov1991 24Mar1972	Albert Knight	Andres Pico Adobe (Ranchito Romulo) – Home of Dr. M. R. Harrington, San Fernando Valley Historical Society HQ
LAN-2760 H	none	21Oct1998	Dana Slawson Greenwood & Associates	*(N of search radius)* Mission reservoir and weir box (1905-1914)
LAN-3182 H	none	15Apr2004	John M. Foster	Cobble/boulder foundation, possibly associated with the Mission (inaccurately mapped at SCCIC, should be to the east and within LA-10003/4 project boundary)
Note: * within project boundary.				

II. Historic Structures, Landmarks, and Places

Permanent Number	Other Number(s)	Date Recorded	Recorded By	Description
19-150411	4-LAN-H37 LAN-960 H	30Jun1978	Bob Edberg UCLA Archaeological Survey	Mission San Fernando Dam (same as LAN-960, inaccurately mapped at SCCIC)
19-186558	CHL-150			Brand Park Memory Garden *[Site record missing at SCCIC]*

Sixteen cultural resources reports are on file at the SCCIC within one half mile of the San Fernando Substation. Of these, Report Numbers LA-1381, LA-1590, LA-4499, LA-6997, LA-10003, and LA-10004 produced by Greenwood and Associates (Foster 2002, 2004, 2005; Greenwood and Foster 1984; Slawson 1998; Toren et al. 1986) contain the most useful information about Mission San Fernando and the immediate project area. Specifically, the Foster 2004 and 2005, and Toren et al. 1986 reports are the only reports that document subsurface testing in the area directly adjacent to the project area. The materials and structure remnants found in those locations hint at the possible buried features in and around the Mission San Fernando (CA-LAN-169 H) site.

III. Research Reports

Report Number	Resources Involved	Date of Report	Author & Company	Title
LA-1151	none	28Apr1982	Dennis J. Lowry Engineering Technology, Inc.	*An Archaeological Resource Survey and Impact Report Assessment of a 9-Acre Parcel, Eastern Holy Cross Property, Los Angeles County, California*
LA-1381	LAN-169 H	10Aug1984	Roberta S. Greenwood & John M. Foster Greenwood & Associates	*Cultural Resource Investigation of Ex-Mission Property, 14937 San Fernando Mission Boulevard, Los Angeles County*
LA-1432	none (should have found LAN-2760 H)	14Jan1985	Susan Colby & Paul Farnsworth UCLA Archaeological Survey	*An Archaeological Resource Survey and Impact Assessment of Northern Parcels of Holy Cross Hospital Property, Mission Hills, Los Angeles County, CA*
LA-1464	none	11Jul1985	Susan Colby UCLA Archaeological Survey	*An Archaeological Resource Survey and Impact Assessment of a 10+ Acre Parcel at 10105 Mission Hills Road, Los Angeles County, CA*
LA-1590	LAN-169 H	8Aug1986	George A. Toren, Roberta S. Greenwood, & John M. Foster Greenwood & Associates	*Archaeological Investigations at 14937 San Fernando Mission Boulevard (CA-LAN-169A), Los Angeles, California*
LA-1981	LAN-2006 H	7Nov1972	Alan Garfinkel	*The Andres Pico Adobe: A Research Proposal (student paper for Anthro 476A)*
LA-2488	LAN-2006 H	Oct1991	Albert Knight	*The Andres Pico Adobe: A Partial Survey Including a Records Search and A Site Revisit/Assessment*
LA-3009	LAN-2006 H LAN-169 H	Mar1994	Albert Knight Western Mojave Survey Association	*Damages to and Losses of Cultural Resources in Los Angeles County, California During the Riots, Fire Storms, and Earthquakes of 1992-1994*
LA-3670	none	Jan1997	Barbie Stevenson	*Cultural Resources Monitoring for the*

Report Number	Resources Involved	Date of Report	Author & Company	Title
			Getchell & John E. Atwood Pacific Archaeological Sciences Team (PAST)	*Stranwood Avenue to Sepulveda Boulevard Drain Project Located in the Community of Mission Hills, Los Angeles County, California*
LA-4077	found LAN-2760 H, did not create site record	18Jun1998	Brian D. Dillon	*Archaeological and Historical Survey and Impact Assessment of Tract 52539, A +/-30 Acre Parcel in the Mission Hills Community of Los Angeles, California*
LA-4107	none in search area	10Jan1991	Andrew L. York & Gene P. Davis Dames & Moore	*B1R Route Variation Supplement to Mobil M-70 Pipeline Replacement Project, Cultural Resources Survey Report*
LA-4499	LAN-2760 H	Oct1998	Dana N. Slawson Greenwood & Associates	*Historical Resource Investigation for Health Structures Tract 52539*
LA-6997	none LAN-3182 H under pavement, not found	13Jun2002	John M. Foster Greenwood & Associates	*Archaeological Investigation for Northeast Valley Animal Shelter (Stranwood), Task ID No. NEV002, City of Los Angeles, California*
LA-7903	none	15Oct2006	Robert J. Wlodarski Cellular Archaeological Resource Evaluations (CARE)	*Record Search and Field Reconnaissance for the Proposed Royal Street Communications Site LA0042A, Mission Hills, California*
LA-10003	LAN-3182 H	Apr2004	John M. Foster Greenwood & Associates	*An Extended Phase I Archaeological Program, Northeast Valley Animal Shelter, Mission Hills, California*
LA-10004	LAN-3182 H	Sep2005	John M. Foster Greenwood & Associates	*Archaeological Monitoring Program, Northeast Valley Animal Shelter, Mission Hills, California*
Note: * numbered sites and historic properties within the records search perimeter.				

Historical Maps

The SCCIC maintains a collection of historical USGS and plat maps dating back to the 19th century, and covering much of Los Angeles and Orange Counties. For the Proposed Project area, the SCCIC holds four relevant historical maps.

In all of these early 20th century maps, the Mission San Fernando is shown in the same location as present, although the 1:62,500 San Fernando maps from 1924 and 1929 show more small buildings to the west of the current structures. Through time, most of the structures identified as "Mission San Fernando" are mapped along the north side of what is now San Fernando Mission Boulevard. One possible Mission structure is located south of the boulevard and west of the main complex on the San Fernando 1924 and 1929 maps.

In all of the maps, the Mission complex contains several small square structures and one or two long east-west oriented structures. Only in later maps, from the 1960s forward, is the Mission San Fernando shown with a central north-south oriented structure, as today. The easternmost of the long east-west buildings in these early maps is probably the Mission San Fernando Rey de España *Convento* building which is listed in the National Register of Historic Places as NR# 88002147. The Convento is the only surviving, largely intact structure from the original Spanish-era Mission complex.

Additionally, in all of the historical maps, the San Fernando Reservoir northwest of the project area is essentially unchanged and very similar to the configuration of the current dam and reservoir.

4.5.1.3 Pedestrian Survey

An archaeological survey was conducted on April 23 and 26, 2009 of the Proposed Project area, which was defined as a 30-meter radius around each existing tower or structure. Existing maintenance roads adjacent to all towers, and approximate locations for equipment staging during construction and operation were surveyed. No new roads or spurs are currently planned. Pull and tension sites have yet to be identified and additional survey may be required if they fall outside of current survey limits.

Each tower area and access road was subjected to systematic surface inspection; transects were walked at 10 meter intervals or less to ensure that all surface-exposed artifacts and sites within the Proposed Project area would be identified. Ground visibility varied from excellent in recently burned areas to poor in most cases where vegetation or ground cover was dense. The area around most of the towers has been previously disturbed. Photographs were taken of the survey areas for reference.

No archaeological materials were observed or collected in the Proposed Project area.

4.5.1.4 Regulatory Framework

Proposed Project effects on historic properties were assessed in compliance with the (CEQA; Public Resources Code § 21000 et seq.) and the CEQA Guidelines (California Code of Regulations § 15000 et seq.), as amended to date. For potential effects on archaeological or historical resources to be considered significant under CEQA, the resources in question must be listed in or determined to be eligible for listing in the California Register of Historic Resources (CRHR), be included in a local register of historical resources, or be determined by the lead agency to be a historical resource.

If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County Coroner makes the necessary findings as to origin pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the Native American Heritage Commission (NAHC) would be notified within 24 hours as required by Public Resources Code 5097.

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-00023	Leonard, Nelson N III	Archaeological Reconnaissance of Tentative Tract # 31399, a Residential Development Near Newhall, California	
LA-00103	Singer, Clay A.	Archaeological Resource Survey of Portions of the South Fork, Santa Clara River, Los Angeles County, California	
LA-00290	Desautels, Roger J.	Archaeological Survey Report on Acre Parcel of Land Located In the Newhall Area of the County of Los Angeles, California	
LA-00493	Singer, Clay A.	Cultural Resource Survey and Impact Assessment for a 330+ Acre Parcel in the Granada Hills Area, County of Los Angeles	
LA-00578	Baksh, Michael G.	Archaeological Evaluation of Tentative Tract # 35555 Los Angeles County, California	
LA-00776	McIntyre, Michael J.	Cultural Resource Reconnaissance and Assessment of a Pipeline No. 1192, Chatsworth, Los Angeles County, California	
LA-00842	Singer, Clay A.	Archaeological Survey and Cultural Resource Assessment for a Portion of Towsley Canyon, Near Newhall, Los Angeles County, California	19-000802
LA-01044	McIntyre, Michael J.	Assessment of the Impact Upon Cultural Resources by the Proposed Development of O'Melveny (Bee Canyon) Park. Granada Hills, Los Angeles County, California	19-000672
LA-01045	Toren, George	Assessment of the Archaeological Impact of the Weldon Hills Plant, Los Angeles County, California	
LA-01052	Schilz, Alan J.	Archaeological Survey of the Sylmar Development Project Site, Los Angeles County, California	

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-01730	Clewlow, William C. Jr.	Archaeological Report Status of LAN-816 in Sunshine Canyon, Los Angeles County, California	19-000816
LA-01978	Salls, Roy A.	Report of Archaeological Reconnaissance Survey of Santa Clarita, California-Newhall Carrier Annex Environmental Assessment. ESA Project Number 9094c, Newhall, California	
LA-02141	Singer, Clay A. and Atwood, John E.	Cultural Resources Survey and Impact Assessment for Three Debris Basins North of Cagney Ranch [TT 48906 and TT 489131 In Granada Hills, Los Angeles County, California	
LA-02231	Chartkoff, Joseph and Chartkoff, Kerry	University of California Los Angeles - Archaeological Survey Field Project Number UCAS-081-B Highway Construction Survey VII-LA-5-p m 43 4-45 6, City of Los Angeles, California	
LA-02305	Moratto, Michael J.	Cultural and Paleontologic Resources In the Santa Susana and Santa Monica Mountains, Los Angeles County, California	19-000802, 19-001592, 19-001593, 19-001594, 19-001598, 56-001011
LA-02522	Robinson, R. W.	A Cultural Resources Investigation of Tentative Parcel Map 22696. Fifty-Six Acres Located In the Vicinity of Newhall, Los Angeles County, California	
LA-02608	White, Laura S.	An Archaeological Assessment of a ± 25-Acre Portion of the BFI Waste Management Facility Located at 14747 San Fernando Road in Sylmar, Los Angeles County, California	19-000816
LA-02648	Macko, Michael E.	Results of a Phase I Archaeological Resource Literature Review Field Survey for Project No. E6000223. Street Widening in Granada Hills Area Near Shoshone Avenue and Rinaldi, City of Los Angeles, California	
LA-02950	Anonymous	Consolidated Report: Cultural Resource Studies for the Proposed Pacific Pipeline Project	

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-03000	Simon, Joseph M. and Whitley, David S.	Phase I Archaeological Survey and Cultural Resources Assessment for the 225 Acres Alternative Site 2	
LA-03289	Dam, Gene	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	19-000034, 19-000059, 19-000060, 19-000067, 19-000077, 19-000095, 19-000169, 19-000194, 19-000213, 19-000216, 19-000248, 19-000408, 19-000409, 19-000410, 19-000411, 19-000412, 19-000441, 19-000444, 19-000475, 19-000490, 19-000491, 19-000492, 19-000493, 19-000634, 19-000643, 19-000644, 19-000645, 19-000646, 19-000823, 19-000903, 19-000925, 19-000926, 19-000927, 19-000938, 19-000960, 19-000962, 19-000990, 19-000991, 19-000992, 19-001015, 19-001305, 19-001834, 19-001835
LA-04001	Demcak, Carol R.	Report of Archaeological Survey for L.A. Cellular Site #554.1, 22444U N., The Old Road, Newhall, Los Angeles County, California	
LA-04008	Unknown	Cultural Resources Investigation Pacific Pipeline Emidio Route	

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-04059	Iverson, Gary	Negative Archaeological Survey Report 07- LAN -14 - 24 8/27/03 - 07 - 11984k - 07234	
LA-04484	Minch, John and Stickel, E. Gary	Report of the Monitoring Program, Paleontological and Archaeological Monitoring, Sunshine Canyon Landfill Extension, County of Los Angeles, California	19-002369, 19-002370, 19-002484, 19-002529, 19-100186, 19-100188, 19-100189, 19-100190
LA-04828	Stickel, E. Gary	Cultural Resources Investigation Report of Two Loci (SC-3 and SC-9) In the Sunshine Canyon Landfill Extension Project JMA Project No. BFI-94-164 Area, Los Angeles County, California	19-000816, 19-002370
LA-04829	Stickel, E. Gary	An Archaeological Site (SC-16) Investigation Report In the Sunshine Canyon Landfill Extension Project Area JMA Project # BFI-94-164, Los Angeles County, California	19-002529
LA-04830	Stickel, E. Gary	Cultural Resources Investigation Report of One Locus (SC-12) In the Sunshine Canyon Landfill Extension Project Area JMA Project # BFI-94-164, Los Angeles County, California	19-002484
LA-05144	Iverson, Gary	Negative Archaeological Survey Report 16800K	
LA-05145	Stickel, E. Gary	Cultural Resources Investigation Report of Five Loci (SC-10, -11, -13, -14, -15) in the Sunshine Canyon Landfill Extension Project Area JMA Project No. BFI-94-164, Los Angeles County, California	19-100186, 19-100187, 19-100188, 19-100189, 19-100190
LA-05146	Minch, John	Report on the Monitoring Program, Paleontological and Archaeological Monitoring, Sunshine Canyon Landfill Extension, Los Angeles, County, California	19-002369, 19-002370, 19-002484, 19-002529, 19-100186, 19-100187, 19-100188, 19-100189, 19-100190

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-05147	Stickel, E. Gary	A Site Survey for Cultural Resources for the City of Los Angeles Extension Phase of the Sunshine Canyon Landfill Project, Los Angeles County, California	19-000816
LA-05148	Stickel, E. Gary	A Preliminary Investigation of an Off-site Ridgecrest Archaeological Site (SC-1) for the Sunshine Canyon Landfill Extension Project Area, Los Angeles County, California	19-002369
LA-05533	Smith, Philomene C.	Negative Archaeological Report: Rock-lined Section and the Addition of an Access to Paved Section of Drainage Channel Near Interstate 5 in Santa Clarita, California	
LA-05534	Morrison, Andrea Sue	Historic Property Report and Finding of "no Effect": Interstate 51 State Route 14 Interchange Near the City of Santa Clarita. Los Angeles County, California	
LA-05855	Anonymous	Phase I Archaeological Survey of the 558 Acres Old Road Study Area, Los Angeles County, California	
LA-08255	Arrington, Cindy and Sikes, Nancy	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes 1 and 11	
LA-08805	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Global Signal Candidate 3019347 (Old Road), 22400 The Old Road, Newhall, Los Angeles County, California	
LA-08913	Billat, Lorna	Old Road / LA-2080a. Cellular Antennas on Existing Monopole. 22400 The Old Road, Near Newhall, Los Angeles County, California 91321	
LA-08958	Tsunoda, Koji and A. Moreno	Archaeological Survey Report for Southern California Edison Company Saugus-north Oaks For Cable Project Los Angeles County, California (WO#8456-0639. JO#6155)	19-002105, 19-002132, 19-002898

Table 4.5-1 Cultural Resource Studies Conducted Within a ½-Mile Radius of the Proposed 66 kV Sub-Transmission System

SCCIC Reference	Author	Title	Resources
LA-09063	Schmidt, June A.	Negative Archaeological Survey Report Church of the Nazarene (C.U.P. No 03-090) 23857 The Old Road, Santa Clarita, Los Angeles County, California	
LA-09066	Shepard, Richard S.	Phase I Cultural Resource Assessment for Lyons Canyon Ranch Specific Plan, Tentative Tract Map 53653 Santa Clarita, Los Angeles County, California	
LA-09069	Stickel, E. Gary	Cultural Resources Investigation Report of Four Loci (SC-4, SC-5, SC-7, SC-8) in the Sunshine Canyon Landfill Extension Project Area, Los Angeles County, California	
LA-09072	Stickel, E. Gary	A Phase II Cultural Site Survey for the Sunshine Canyon Landfill Extension, Los Angeles County, California	
LA-09073	Stickel, E. Gary	A Cultural Resources Investigation of Site Locus SC-18 Located Within the City of Los Angeles Phase Area of the Sunshine Canyon Landfill Extension Project, Los Angeles County, California	
LA-09074	Stickel, E. Gary	A Cultural Resources Investigation of Site Locus SC-17 Located Within the City of Los Angeles Phase Area of the Sunshine Canyon Landfill Extension Project, Los Angeles County, California	
LA-09075	Stickel, E. Gary	An Archaeological Site (SC-18) Investigation Report in the Sunshine Canyon Landfill Extension Project Area, Los Angeles County, California	
LA-09447	Billat, Lorna	Oaktree Gun Club LA-20816, Newhall, California	

4.5.1.5 Paleontological Resources

Los Angeles County is home to numerous fossil localities, extending from plant finds to invertebrates, mammals and reptilian (including dinosaur) finds ranging in age from Cretaceous to Pleistocene. Locally, the Proposed Project has not been identified as a source of numerous Cretaceous and Tertiary vertebrate discoveries. Based on an internet search of the University of California-Berkeley, Museum of Paleontology (UCMP) fossil index (http://ucmpdb.berkeley.edu/), 12 vertebrate fossil specimens are listed within the Los Angeles County area. The Proposed Project site is located within several miles of these fossil localities, and no fossil finds within the alluvium or Towsley Formation were recorded within the UCMP paleontological database. The potential for the presence of articulated skeletons or undisturbed fossils within these geological units is low. Even though the Proposed Project is not located within a highly sensitive paleontological area, proper care should be followed during earthwork to avoid damaging or destroying unknown resources.

According to the Paleontological and Archaeological Monitoring Report of the Sunshine Canyon Landfill Extension, prepared by Minch and Associates, Inc, (March 1999), 81 fossil localities were identified in the Landfill during the earth disturbing construction activities and 748 fossils were collected or observed. All localities established were located within the Towsley Formation of Upper Miocene to Lower Pliocene age which is a tan to light gray sandstone with some pebbles, interbedded with brown mudstone and silty claystone deposited in deep water by turbidity currents which has produced significant marine invertebrate and vertebrate fossils. The marine invertebrates previously collected in the Towsley Formation include bryozoa, pelecypods, gastropods, arthropods and echinoderms; marine vertebrates previously collected include sharks, whales, sea lions, and sea cows (Minch and Associates, 1999).

The alignment of the 66 kV sub-transmission system immediately west of Interstate 5 crosses the Sunshine Canyon Landfill located approximately several hundred feet west of the Chatsworth Tap Tower. Fossil locals may be encountered during excavation work along the segment between the Chatsworth Tap and the Newhall Substation. Since the Towsley Formation is not present in the Storage Field or in the proposed SCE Natural Substation location, the occurrence of fossils specimens in these areas are considered low. In the event that the presence of fossil localities are discovered during excavation or earthwork, proper care should be followed during earthwork to avoid damaging or destroying unknown resources.

4.5.1.6 Unique Geologic Features

According to Appendix G, Section V of CEQA, lead agencies are required to consider impacts to unique geologic features. The CEQA Guidelines are concerned with assessing impacts associated with the loss of unique geologic features that are of value to the region or state.

Geologic formations, their structure and the fossils preserved in them provide information about past environments. Unique geologic features are considered bedrock formations or geomorphic features of unusual scientific or aesthetic value, including fossil localities or “type sections” (i.e., locations defining the characteristics of a formation), that preserve with great detail the record of important past environments, or that are deemed of high value to academic or research interests are considered. Some features stand out as being unique in one way or another within the boundaries of the County. A geologic unit or feature is unique if it:

- Is the best example of its kind locally or regionally;
- Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
- Provides a key piece of geologic information important in geology or geologic history;
- Is a "type locality" of a geologic feature;
- Is a geologic formation that is exclusive locally or regionally;
- Contains a mineral that is not known to occur elsewhere in the County; or
- Is used repeatedly as a teaching tool.

Based on this study, no unique paleontological resource or site or unique geologic features are known to occur at the Proposed Project site, including at the existing Plant Station, the proposed Central Compressor Station site, proposed SCE Natural Substation, and the alignment of the proposed SCE 66 kV sub-transmission modification.

4.5.2 Significance Criteria

Using the criteria for listing on the CRHR, the lead agency shall consider a resource to be historically significant if the resource:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history [CEQA Guidelines § 15064.5(a)(3)].

The term "historical resource" may apply to archaeological sites, also. However, for an archaeological site that does not meet the criteria for consideration as a "historical resource," a determination must be made as to whether it qualifies as a "unique archaeological resource." The CEQA Statute defines "unique archaeological resource" as:

> *an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:*
>
> - *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*

- *Has a special and particular quality such as being the oldest of its type or the best available example of its type.*

- *Is directly associated with a scientifically recognized important prehistoric event or person [Public Resources Code § 21083.2(g)].*

According to CEQA Guidelines § 15064.5(b), only those resources determined to be "historical resources," that is, eligible for listing in the CRHR, are considered to be subject to potential significant adverse impacts. The Guidelines also state, "A project with an effect that may cause a substantial adverse change in significance of an historical resource is a project that may have a significant effect on the environment" (CEQA Guidelines § 15064.5(b)). A "substantial adverse change" is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines § 15064.5 (b)(1)). The significance of a historical resource is materially impaired when a project affects "those physical characteristics of an historical resource that convey its historical significance" (CEQA Guidelines § 15064.5(b)(2)(a)).

4.5.3 Applicant Proposed Measures

The following AMPs will be implemented as part of the Proposed Project design:

APM-CR-01: The Proposed Project has yet to identify pull and tension sites where conductor stringing activities will take place. These locations are approximately 300 feet within an existing easement by 100 feet in size, and require level areas to allow for maneuvering of the equipment. Where possible, these locations will be located on existing level areas and existing roads to minimize the need for grading and cleanup.

APM-CR-02: Construction monitoring may be required in the vicinity of the San Fernando Substation due to the proximity of the San Fernando Mission and the possibility for subsurface archaeological materials to be encountered.

APM-CR-03: A Historic American Engineering Record (HAER) shall be prepared prior to removal of Kern River One Towers used within the existing SCE 66 kV alignment

APM-CR-04: If previously unidentified archaeological resources are unearthed during construction activities, construction would be halted in that area and directed away from the discovery until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve or recover the resources.

APM-CR-05: If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County Coroner makes the necessary findings as to origin pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours as required by Public

Resources Code 5097. The NAHC would notify the designated Most Likely Descendants who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding treatment of remains.

4.5.4 Environmental Impacts

The potential impact to cultural resources from construction and operation of the Proposed Project was evaluated using the stated CEQA significance criteria and is presented in this section. For the purpose of presenting potential cultural resource impacts, CEQA criteria were evaluated and are discussed separately for construction and operations. Because the project is not expected to have any impact on cultural resources due to operation of the Proposed Project, the CEQA checklist was only applied to the evaluations of construction activities and impacts to operations are only briefly mentioned.

4.5.4.1 Construction Impacts

Would the Proposed Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

The records search indicated one known cultural resource was recorded within the Proposed Project area, CA-LAN-2484. No evidence of this site was encountered during the archeological field survey. All artifacts from the site were collected at the time it was originally recorded. The site has no depth and it was positioned in an aggrading environment. No previously undetected subsurface component of this site is expected to remain. No other cultural resources were identified during the survey. As a result, less than significant impacts to cultural resources are expected to occur through the implementation of the Proposed Project.

SCE identified historic towers along the alignment of the proposed SCE 66 kV sub-transmission modification. The towers are known as “Kern River One” towers manufactured in 1908 using windmill parts of historic significance. In accordance with APM-CR-03, impact to this potentially historic resource will be minimized through development of Historic American Engineering Record (HAER) shall be prepared prior to removal of Kern River One Towers used within the existing SCE 66 kV alignment.

Would the Proposed Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Based on the negative survey results, no archaeological resource will be subjected to a significant adverse change.

If previously unidentified archaeological resources are unearthed during construction activities, construction would be halted in that area and directed away from the discovery until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve or recover the resources.

Would the Proposed Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

In the event that a unique paleontological resource or site or unique geologic feature, as defined in Section 4.5.4, is encountered, then a qualified paleontologist shall be retained to perform inspection of the excavation and disturbed soils and salvage exposed fossil specimens.

Based on the study performed, the Proposed Project would not directly or indirectly destroy a paleontological resource or site, or unique geologic feature. Therefore, no impacts are anticipated, and no mitigation is required.

Would the Proposed Project disturb any human remains, including those interred outside of formal cemeteries?

If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County Coroner makes the necessary findings as to origin pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours as required by Public Resources Code 5097. The NAHC would notify the designated Most Likely Descendants who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding treatment of remains.

The cultural survey found no evidence that human remains are likely to be encountered. No impact is expected.

4.5.4.2 Operation Impacts

Operation of the Proposed Project consists of routine operation and maintenance of the proposed Central Compressor Station, the proposed SCE Natural Substation and proposed SCE 66 kV sub-transmission modification and other Proposed Project components. These activities would not affect any known archaeological or historical resources, and expected to have no future impact.

4.5.5 Mitigation Measures

The Proposed Project was determined to have **a less than significant impact without mitigation** due to construction and operation; therefore no mitigation is required or proposed.

4.5.6 References

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