C.4 Cultural Resources

Cultural resources consist of archaeological sites from the prehistoric and historic periods, and buildings, structures, and objects from the historic period. The proposed Project can affect cultural resources as a result of removal of existing towers and transmission lines, construction of proposed new towers and stringing of transmission line, grading access roads, and use of staging areas outside the corridor (defined below). The proposed Project route runs 25.6 miles from the SCE Antelope Substation in Lancaster to the SCE Pardee Substation in Santa Clarita. About 13 miles of the proposed Project route is within National Forest System lands of the ANF. Except for segments at each end of the route located in the City of Lancaster and the City of Santa Clarita, the remainder of the route outside of the ANF is in unincorporated Los Angeles County. The Area of Potential Effect (APE) for cultural resources is defined generally as a 200-foot wide corridor within which old towers would be removed and proposed new towers would be constructed, plus a 15-foot buffer on each side. This 230-foot-wide corridor was surveyed for cultural resources by ECORP Consulting, Inc. archaeologists. The APE is 230 feet wide because 24 stringing setup areas 200 feet by 200 feet in area are proposed. The 30-foot buffer was added so that the standard 15-meter transect interval for archaeological survey (distance between surveyors) would come out evenly.

Areas outside this corridor where construction activities with the potential to affect cultural resources could occur are also included in the APE. These include a 31-acre area proposed for expansion of the Antelope Substation, grading and vegetation clearing on existing access roads, grading of new access roads, and use of staging areas. However, the locations of staging areas have not yet been defined. When identified, staging areas will be surveyed for cultural resources. If cultural resources are identified as a result of survey of a proposed staging area, the staging area will be relocated and the new staging area will be surveyed.

C.4.1 Affected Environment

C.4.1.1 Cultural Background

Prehistory

The Project area consists of a transmission line corridor that begins in the Antelope Valley and runs south, crossing Portal Ridge, the Leona Valley in the San Andreas Rift Zone, and the Sierra Pelona. The corridor ends in the Santa Clara River Valley. The Antelope Valley is a westward extension of the Mojave Desert. The Sierra Pelona mountains form a divide between the desert and the coastal area. The Santa Clara River drains the southern slopes of the mountains and runs to the ocean. The prehistory of the Project area is discussed in terms of the coastal culture area and the Antelope Valley. The prehistory of the Sierra Pelona is not well known.

The prehistory of the coastal area can be divided into three time periods, the Millingstone Period, the Intermediate Period, and the Late Prehistoric Period. The Millingstone Period (about 6500 B.C. to 1000 B.C.) represents a long period of time characterized by smaller, more mobile groups, compared to later time periods. These groups probably had a seasonal round of settlement, which included both inland and coastal residential bases. They relied on grass and sage seeds to provide calories and carbohydrates. Although fewer projectile points occur, compared to later periods, faunal data indicate the same animals were hunted in all time periods. Inland Millingstone Period sites are characterized by numerous manos, metates, and hammerstones, while shell middens are common along the coast. Quartz and rhyolite are more common than chert as the preferred materials for making chipped stone tools.

The period from 1000 B.C. to A.D. 650 is known archaeologically as the Intermediate Period. During this period mortars and pestles appear, indicating the beginning of acorn exploitation. Use of the acorn, a storable high calorie food source, probably allowed greater sedentism (living in one place year-round), especially in inland areas. Large projectile points indicate that the bow and arrow, characteristic of the Late Prehistoric Period, had not yet been introduced. Hunting was probably conducted using a spear thrower. Settlement patterns during this period are not well known. The semi-sedentary settlement pattern characteristic of the Late Prehistoric Period may have begun during the Intermediate Period, although lower population densities may have meant less territoriality.

During the Late Prehistoric Period (A.D. 650 to circa 1800) most people lived in villages of up to 200 people located near permanent water sources and a variety of food resources. The village was the center of a territory from which resources were gathered. Work parties left the village for short periods of time to hunt, fish, and gather plant foods within the territory. While away from the village they established temporary camps and resource processing locations. Archaeologically, such locations are indicated by manos and metates for seed processing, bedrock mortars for acorn processing, and lithic scatters indicating manufacturing or maintenance of stone tools (usually made of chert or other fine-grained lithic material) used in hunting or butchering. Overnight stays in field camps are indicated by fire-affected rock used in hearths. Resources from other territories were probably obtained through exchange. Coastal products, such as dried fish and shellfish, were exchanged for inland products such as acorns or steatite (talc schist) from the Sierra Pelona in the Project area. Steatite was a soft stone material used to make stone bowls, ornaments, and ceremonial items.

Antelope Valley appears to have been a transition zone between the coastal and desert cultures. Most prehistoric sites investigated date to the period beginning about A.D. 500. During this period, people lived in villages near water sources at the base of the mountains or near springs. At the time of Spanish contact, villages were reported in the rift zone along the northern edge of the Sierra Pelona and Liebre Mountains (Earle, McKeehan, and Mason, 1995: 2-11). Seasonal camps were likely used when procuring resources at distances from the village that required an overnight stay. Seasonal camps in the Little Rock Creek drainage, east of the Project area on the north slope of the San Gabriel Mountains, were located on stream terraces mostly between about 3,500 and 4,500 feet elevation, although a few have been found above 6,000 feet. Earth ovens, used to process yucca, were found on ridges between 3,800 and 5,500 feet in elevation (Earle, McKeehan, and Mason, 1995: Figure 3-1). However, the only parts of the Project area above 3,800 feet are the ridges north and south of the Leona Valley (Portales Ridge and Leona Divide) in the rift zone. However, it is likely that yucca was available at lower elevations on the south facing slopes of the Sierra Pelona. People living in the rift zone and the northern slopes of the San Gabriel Mountains in late Prehistoric times probably had a desert margin subsistence system in which villages were located where permanent watercourses came out of the mountains or at springs. Gathering parties went into the desert for mesquite beans and carrizo grass and into the mountains to obtain yucca hearts and stalks, juniper berries, pinyon pine nuts, acorns, and pine nuts (Earle, McKeehan, and Mason, 1995: 2-11).

Ethnography

Most of the Project area is within the area inhabited by the Tataviam, a group that occupied the Sierra Pelona, the south slopes of the Liebre Mountains, and the Santa Clara River drainage from its headwaters in the east to Piru Creek to the west (King and Blackburn, 1978; Johnson and Earle, 1990). The San Gabriel and Santa Susana Mountains formed the boundary with the Gabrielino to the south and southeast. To the north, Tataviam territory included Liebre Mountain, Sawmill Mountain, and the Sierra Pelona, but did not extend into the Antelope Valley (Johnson and Earle, 1990).

The Tataviam likely spoke a Takic language, a language family within the Uto-Aztecan stock of languages. Takic speakers (formerly referred to as Shoshoneans) migrated into southern California between 1,000 and 3,000 years ago from the northeast (southwestern Great Basin). Other Takic speakers include the Gabrielino who occupied the Los Angeles Basin, the Kitanemuk to the northwest, and the Serrano to the northeast. The Chumash, who spoke languages belonging to the Hokan stock, were located to the west.

The Tataviam settlement system consisted of villages located near permanent water sources at lower elevations, with resource-gathering camps in the higher elevations. Tataviam villages were located at Liebre Mountain, along Piru Creek, Castaic Creek, along the Santa Clara River, and near Newhall (King and Blackburn, 1978: Figure 1). Plant foods, in order of importance, included yucca stalks and hearts, acorns, sage seeds, and juniper and holly leaf cherry berries (King and Blackburn, 1978: 536). Yucca stalks were collected in the spring, and the hearts were roasted in earth ovens. Acorns were available in the fall in oak groves in canyons. Although processing acorns required a great deal of labor (Basgall, 1987), they provided a storable resource that allowed greater sedentism. It is not known when the Takic speakers arrived in the area or whether acorn use began with their arrival in the area or developed later.

The Antelope Valley was probably used as a resource procurement area by 1) the Serrano, whose villages were located in the northern foothills of the San Gabriel Mountains and in the rift zone along the north side of the Sierra Pelona, 2) the Kitanemuk, whose villages were located in the southern Tehachapi Mountains, and 3) the Kawaiisu, whose villages were located in the northern Tehachapi and Piute Mountains. The Serrano and Kitanemuk were Takic speakers, while the Kawaiisu spoke a Numic language, another language family of the Uto-Aztecan stock. Villages said to be occupied by Serrano speakers were located on lower Little Rock Creek, in the rift zone at Leona Valley, at Lake Hughes, and near Portal Ridge west of Mud Springs. Smaller settlements were located at Elizabeth Lake and Fairmont (Earle, McKeehan, and Mason, 1995: 2-11).

History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and four presidios (military posts) were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated economic and political life over the majority of the California region. The purpose of the missions was primarily to convert the native population to Spanish Catholicism, as well as to provide economic support to the presidios (Castillo, 1978). Mission San Fernando was established in the Project vicinity in 1797. A mission outpost, or *asistencia,* was established at the confluence of the Santa Clara River and Castaic Creek in 1804. It had both religious and economic functions, being used as the headquarters of the mission's cattle ranch in the Santa Clara Valley (Worden, 1996).

The Mexican Period (1821-1848) began when Mexico became independent of Spain as a result of the Mexican Revolution in 1821. The Mexican government removed the missions and their lands from church control in the 1830s and began granting the former mission lands for use as cattle ranches ("ranchos"). The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo, 1978).

In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and settlers to California from various parts of the United States and the world, most of whom settled in the north. In southern California, the prosperous ranching economy continued into the 1860s when severe floods and droughts put many rancho owners into debt to Anglo-Americans (Castillo, 1978). The resulting foreclosures put much of the land in southern California into Anglo-American ownership by the 1870s.

The Santa Clara River Valley from east of Bouquet Canyon to Piru Creek was granted as Rancho San Francisco in 1839 to Antonio del Valle, a lieutenant in the Mexican army (Aviña, 1976: 79). The southern portion of the Project transmission line route is within this land grant. In 1845, Antonio del Valle died and Rancho San Francisco passed to his son, Ignacio, who was mayor of Los Angeles. As with many other land grant owners, the del Valles went into debt in the 1860s and had to sell most of their land. The land was owned by a series of speculators until it was purchased in 1875 by Henry Newhall, a wealthy San Francisco merchant and railroad investor. In 1876, Newhall sold railroad right-of-way and a site for a railroad station to the Southern Pacific Railroad, allowing the Southern Pacific Railroad to be constructed through the ranch (Worden, 1995). The railroad connected Los Angeles with San Francisco. The town of Newhall, located about 5 miles south of the Pardee Substation, formed around the railroad station (Worden, 1997). The Newhalls continued to live in San Francisco, but did use the land for cattle ranching and other agricultural enterprises. The Newhall Land and Farming Company was formed by the Newhall family to manage their land and other enterprises after the death of Henry Newhall in 1882 (Worden, 1995). Henry Newhall's son, Gregory, built a two-story house on the ranch in 1893. He stayed in the house when visiting the ranch. After his death in 1903 and the death of his brother Walter in 1906, the house became the ranch foreman's house (SCVHS, n.d.a).

Beginning in 1903, silent movies were filmed in and around Newhall. Silent movie star William S. Hart built a mansion in Newhall. Tom Mix also lived in Newhall while filming. After sound was introduced, movies continued to be made in the Santa Clara Valley area. Several western town movie sets were built in Placerita Canyon and were used for filming, including Melody Ranch and Golden Oak Ranch. Many movies and commercials have also been filmed at Vasquez Rocks (Rock, 1994).

Although oil had been discovered in 1876 in Pico Canyon, just south of the Newhall Ranch, oil was not found on the Newhall Ranch until 1936. After 1936, oil revenues supplemented the agricultural income of the ranch. In the 1960s, the Newhall Land and Farming Company began residential development and built the community of Valencia (Worden, 1995). The Newhall-Saugus-Valencia area was incorporated as the City of Santa Clarita in 1987.

The Project route crosses Haskell Canyon, named for John Haskell who built a small house there in 1890 and later had an 800-acre cattle ranch in and around the canyon (SCVHS, n.d.b). Bouquet Canyon got its name from Rancho del Buque (Ship Ranch) begun by Francisco Chari who built an adobe house there in 1845. The rancho was later owned by Martin Ruiz. The 300-acre rancho was purchased by Juan and Dominga Suraco in 1874. By 1898, however, the adobe ranch house had been abandoned (SCVHS, n.d.c).

The Antelope Valley was not used extensively during the historic period until the arrival of the Southern Pacific Railroad in 1876. After that time, stock raising was the principal economic activity during the rest of the nineteenth century. The towns of Palmdale and Lancaster formed along the rail line during the real estate boom of the 1880s (Dumke, 1944). Lancaster originally began as a railroad station with houses for railroad employees. The town was founded by W. T. Wicks, who platted the town and offered lots for sale in 1884 (City of Lancaster, n.d.). Palmdale began as Palmenthal, established in 1886 by German settlers from Nebraska and Illinois who took the Joshua trees in the area to be palm trees. Many properties in the Antelope Valley were sold by real estate speculators to people not familiar with the area. Most of these properties were never occupied due to lack of water and the inability to obtain clear title. A drought from 1894 to 1897 caused many people to leave the area. By 1899, most of the buildings in Palmenthal had been abandoned and a new town, called Palmdale, was established around the railroad station (Palmdale Library, n.d.). In the early twentieth century, homesteaders did occupy much of the land and were able to obtain well water using electric pumps. The more recent economy of the area was based on the aerospace industry and Edwards Air Force Base (Palmdale Library, n.d.).

A large part of the Project route passes through National Forest System lands of the ANF. The ANF was originally established as the San Gabriel Timberlands Reserve in 1892 to preserve watersheds in the San Gabriel Mountains above Los Angeles. The San Gabriel Mountains watershed was being degraded as vegetation was lost due to goat grazing and uncontrolled wildfires. In addition, public forestlands were being purchased by lumber interests (Earle, McKeehan, and Mason, 1995: 4-26). The San Gabriel Timberlands Reserve was combined with federal forest lands in the San Bernardino Mountains in 1908 and the name was changed to the Angeles National Forest. The San Bernardino National Forest was separated from the Angeles National Forest in 1925 (Gardner and Switalski, 2005: 58). The portion of the ANF through which the Project passes was originally part of the Santa Barbara National Forest (now the Los Padres Forest) and became part of the ANF in 1926.

The Project route also crosses the Los Angeles Aqueduct, which brings water to Los Angles from the Owens River in Inyo County. The Aqueduct was completed in 1913. A second parallel aqueduct was completed in 1970 (LADWP, n.d.). In the Project vicinity, the Los Angeles Aqueduct follows San Francisquito Canyon and empties into Dry Canyon Reservoir. The Project route crosses the aqueduct south of Dry Canyon Reservoir.

C.4.1.2 Records Search Results

Prior to initiating the cultural resources fieldwork for the proposed Project route, in-person records searches were completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, and at the ANF Forest Supervisor's office in Arcadia. In addition, the Native American Heritage Commission (NAHC) was asked to provide a search of its Sacred Lands File. The records searches provided information about previously recorded cultural resources and previous surveys within one-quarter mile of the proposed Project route, the Antelope substation expansion area, and access roads. The City of Santa Clarita historical list was also reviewed.

A total of 34 surveys have been conducted within a quarter mile of the proposed Project route APE. Of these, 17 surveys overlie or cross the 230-foot wide survey corridor in the APE. In the Northern Segment of the Project between Antelope Substation and the northern boundary of the ANF, two of the previous surveys covered approximately one mile of the 5.75 miles of the APE corridor. In the 14.7-mile Central Segment of the Project within the ANF and extending south to the intersection with Alternative 5, 12 surveys have covered a portion of 8.5 miles of the APE. However, because these were narrow linear surveys of roads and fire-breaks, they did not cover the entire 230-foot width of the APE survey corridor. In the 5.3-mile Southern Segment of the Project west of the intersection with Alternative 5, four surveys have covered about 1.5 miles of the APE.

There are 19 previously recorded cultural resources in or within one-quarter mile of the proposed Project route APE (Table C.4-1). Ten of the 19 cultural resources are within the APE. Only one of the previously recorded cultural resources in the APE is prehistoric and consists of an artifact scatter. One cultural resource (19-120077) is mapped at the SCCIC as being near the Pardee substation, but the site record is missing. Therefore, it is not known if it is prehistoric or historic. The other 17 resources are from the historic period and consist of roads, transmission lines, a structure, and a quarry.

Table C.4-1. Cultural Resources Previously Recorded In or Within One-Quarter Mile of the Proposed Project Route APE

Trinomial / Primary Record #	Forest Service Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
CA-LAN-1180H	N/A	Historic	Historic Graveyard	No	1984	Bruce Love
CA-LAN-1334	N/A	Prehistoric	Artifact Scatter	Yes, N	1987	Andrew York
CA-LAN-1579H	N/A	Historic	Cemetery	No	1989	Antelope Valley Archaeological Society
CA-LAN-2132H	5015300155	Historic	LADWP Trans. Line	Yes, S	1993/ 1992	Michael E. Macko
19-120075	5015300226	Historic	Road 6N19	Yes, C	2000, 2001	Darrell W. Vance, Robert J. Wlodarski
19-186912	5015300275	Historic	Road 6N18	Yes, C		
19-186913	5015300274	Historic	Road 6N09	Yes, C	2001	Darrell W. Vance
19-186914	5015300273	Historic	Road 6N04.1	Yes, C	2001	Darrell W. Vance
19-003081	5015300214	Historic	Mine	No	2001	Darrell W. Vance
19-186857	5015300243	Historic	SCE PS 74 Transmission Line	Yes, N, C, S	2003	Gwen Romani
19-003229	5015300276	Historic	Quarry	No	2003	Gwen Romani, Steve Dies
CA-LAN-2071H	N/A	Historic	Structures	No	1992	CRMS
CA-LAN-1432H	N/A	Historic	Can Scatter	No	1979	Northridge Archaeological Research Center
CA-LAN-2245	N/A	Prehistoric	Roasting Pit	No	1994	Brian D. Dillon
CA-LAN-2246	N/A	Prehistoric	Roasting Pit	No	1994	Brian D. Dillon
CA-LAN-2105H	N/A	Historic	Aqueduct	Yes, S	1992	A. Cole, D. McDowell, D. Shelton
CA-LAN-3131	N/A	Historic	Foundations	Yes, S	2003	Peter Messick
CA-LAN-3132	N/A	Historic	Structures	Yes, S	2003	Peter Messick
P19-120077	N/A	N/A	N/A	Yes, S	N/A	No Information

N = Northern Segment; C = Central (ANF) Segment; S = Southern Segment

Northern Segment

Of the 10 previously recorded cultural resources in the APE, two are located in the Northern Segment of the Project north of the ANF boundary. One is the existing 66-kV transmission line and the other is the only prehistoric archaeological site previously recorded in the APE, CA-LAN-1334. The 66-kV transmission line recorded is the SCE Antelope PS 74 transmission line (P19-186857), which currently connects the SCE Antelope and Pardee substations. This transmission line is supported by steel towers and runs through the entire length of the Project. Most of it would be removed as part of the Project. The transmission line is supported by two types of four-legged steel towers. It appears to have been constructed in the 1930s, based on its absence on the 1933 Saugus USGS quadrangle and its presence on the 1937 San Francisquito and Bouquet Canyon USGS quadrangles. CA-LAN-1334 is discussed in the "Field Survey Results" section below because additional resources were identified at this site during the field survey.

Central Segment

In the Central Segment of the APE in the ANF, four roads and the Antelope PS 74 transmission line (P19-186857) were previously recorded. The four roads are Leona Divide Road (6N04.1; P19-186914; USFS 5015300273), Spunky Canyon Road (6N09; P19-186913; USFS 5015300274), Saugus Del Sur Road (6N18; P19-186912; USFS 5015300275), and Del Sur Ridge Road (6N19; P19-120075; USFS 5015300226). These

are Forest Service dirt roads. Spunky Canyon Road and Saugus Del Sur Road were built between 1926 and 1931. Leona Divide Road was built between 1931 and 1935 and Del Sur Road was built between 1932 and 1941. Saugus Del Sur Road runs along the top of Del Sur Ridge and provides access to the Antelope PS 74 transmission line. Del Sur Ridge Road connects Bouquet Canyon Road with Saugus Del Sur Road.

Southern Segment

In the Southern Segment of the APE, the Antelope PS 74 transmission line (P19-186857), the Los Angeles Aqueduct, the Los Angeles Aqueduct Transmission Line, an archaeological site with foundations of structures from the historic period, a site with a concrete structure foundation, and the site for which the site record is missing (P19-120077) were previously recorded. The Los Angeles Aqueduct (CA-LAN-2105H) is a Los Angeles Department of Water and Power facility that carries water from the Owens Valley in Inyo County to the San Fernando Valley. It was constructed in 1907-1913 to provide water for the City of Los Angeles. The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) was built in 1917 to carry power generated at Power Plant 1 at San Francisquito Reservoir, part of the Los Angeles Aqueduct system, to Los Angeles. Completion of the power plant and transmission line allowed the Los Angeles Department of Water and Power to become the sole provider of electricity to the City of Los Angeles. CA-LAN-3131 consists of the foundations of buildings and an associated refuse deposit from a former hog farm dating to the early twentieth century. The refuse deposit contains hotel or restaurant table ceramics, drinking vessels, bottles, flatware, and saw-cut bone. Refuse from restaurants and hotels in Los Angeles appears to have been brought here for use as feed for the hogs. CA-LAN-3132 consists of a concrete structure foundation in a side canyon east of Haskell Canyon. There may be other older structure foundations present. No artifacts, other than building materials and bathroom fixtures were noted on the surface. Site P19-120077 is discussed in the "Field Survey Results" section below because additional resources were identified at this site during the field survey.

Other Inventories

No cultural resources within the APE have been listed on the California State Historic Resources Inventory, the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest.

The City of Santa Clarita lists 33 historic resources in its General Plan (City of Santa Clarita, 1991). Of these, 29 are in Newhall, and therefore not near the APE. Of the remaining four sites, one, the site of the Asistencia, is near the confluence of the Santa Clara River and Castaic Creek, one is in Placerita Canyon, one is in Soledad Canyon, and one is in San Francisquito Canyon. None of these are within one-quarter mile of the APE. The City of Lancaster and the County of Los Angeles do not have registers of historical resources.

The Native American Heritage Commission (NAHC) conducted a search of its Sacred Lands File and found no Native American cultural resources in the immediate Project area. Letters requesting information about sacred lands in the Project APE were sent to Native American contacts identified by the NAHC. Four responses were received (see Appendix 5). No sacred sites were identified by the respondents.

C.4.1.3 Field Survey Results

The proposed Project route APE was surveyed to identify cultural resources during the weeks of August 1 and August 8, 2005 (Ahmet and Mason, 2005). In order to carry out the portion of the survey on the ANF, a Forest Service special use permit was obtained from the ANF. The APE consists of a 230-foot wide corridor centered on the new 500-kV transmission line route, existing access road segments that would be graded or have vegetation clearing, new access road segments, and the 33-acre expansion area adjacent to the Antelope

Substation. Where possible, the survey was carried out by a three-person crew on foot walking in parallel transects 15 meters apart. For areas where new road spurs are proposed or where grading and vegetation clearance on existing roads are to take place, a single transect was used along the length of the road. Some areas could not be surveyed due to steep slopes, impassable vegetation, or inaccessibility due to poor roads. Previously unrecorded sites were recorded using DPR 523 primary and archaeological site record forms. Previously recorded sites were updated, if necessary, using DPR 523 forms.

The Antelope-Pardee proposed Project route survey corridor contains seven newly recorded sites from the historic period, and two previously recorded sites that required updating (Ahmet and Mason, 2005). CA-LAN-1334, a prehistoric artifact scatter, was updated to include a larger area and to include an historic ranch component. The other site that was updated was P19-120077, a site near Pardee Substation with no associated site form. This site appears to have been historic. No isolates were recorded during the survey. The newly recorded and updated sites are described below. Previously recorded sites that were not updated are CA-LAN-2132H (LADWP transmission line), the Forest Service roads, P19-186857 (SCE PS 74 transmission line), CA-LAN-2105H (Los Angeles Aqueduct), CA-LAN-3131 (hog farm foundations and refuse), and CA-LAN-3132 (structure foundations).

CA-LAN-3480

CA-LAN-3480 (P19-003480, FS# 05-01-53-321, S101H) appears to be a fire ring from the historic period made of 23 granitic rocks. There is a metal stake adjacent to the north which may be a survey marker. There are no associated artifacts. It is also possible that the rocks could indicate the presence of a prehistoric subsurface rock-lined food storage cache or food cooking platform (McIntyre, 2006). CA-LAN-3480 is located in the southern part of the central segment in the ANF near proposed tower T-32.

CA-LAN-3479

CA-LAN-3479 (P31-19-003479, S102H) consists of refuse from the historic period and five wooden stakes in the ground in a row. The stakes vary in height from 9 inches to 24 inches. The trash scatter is adjacent to the stakes to the west. The trash consists of milk glass bottle fragments, Royal Crown Cola bottles, brown and clear glass bottle fragments, children's toys, shoes, olive cans, oil cans, and a yellow porcelain cup. The site is located in the northern segment near Avenue K and proposed new tower location T-107, which was introduced in the proponent's PEA.

CA-LAN-1334/H

CA-LAN-1334/H (S103H) was previously recorded as a prehistoric site consisting of an artifact scatter. It has been updated to add an historic component, the Cochem Ranch and, therefore, is now designated as CA-LAN-1334/H. It is located in the northern segment, north of Portal Ridge and the California Aqueduct. Existing tower 23-2 and the proposed location of new tower T-104 are located within the site boundaries. The Cochem Ranch consists of a house built in 1937 (DataQuick, 2005), a garage, two barns, a granary, a chicken coop, and a vineyard. The Cochem Ranch began as a homestead in the 1880s on an adjacent parcel, according to the current resident of the 1937 house (Cochem, 2005). The prehistoric component consists of numerous manos and metates, many of which were collected during plowing and stacked near the house. Pestles, flaked stone tools, including one arrow projectile point made of chalcedony, and debitage are present in the fields. Debitage consists of chert, chalcedony, and quartzite flakes. One tan-brown ceramic sherd was noted when the site was recorded in 1987.

CA-LAN-3478

CA-LAN-3478 (P19-003478, S104H) consists of three areas (loci) with rock and concrete foundations and enclosures. The site is located south of the California Aqueduct in the northern segment. Existing towers 22-7 and 22-8 and proposed new tower location T-101 are within the site. In Locus A, there are three rectangular foundations made of local granitic rock and cement mortar. They measure 6 by 33 feet, 6 by 10 feet, and the third is incomplete. These foundations probably supported enclosures for water storage. In Locus B, there is a rectangular concrete structure (4 by 11 feet) with a ramp at the north end (may be a holding pen for cattle branding), a rectangular concrete block enclosure (6 by 18 feet), a circular pile of boulders (26 feet in diameter) surrounding a 5-foot deep depression in the ground, and an unmortared rock wall 18 feet long. In Locus C, there is a small rectangular concrete enclosure and a metal tower supporting a metal water tank (5.5 feet in diameter). There are no associated artifacts. Some of these structures appear to be part of a water storage system. The various enclosures and the metal tank probably stored water from a spring located uphill to the south.

CA-LAN-3476

CA-LAN-3476 (P19-003476, FS# 05-01-53-322, S105H) is a cluster of 30 granitic rocks, probably from the historic period. However, it could also indicate the presence of a prehistoric subsurface rock-lined food storage cache (McIntyre, 2006). It is located along an access road that would be graded to reach existing tower 16-7 and proposed new tower T-72 west of Bouquet Reservoir in the ANF in the central segment.

CA-LAN-3474

CA-LAN-3474 (P19-003474, FS# 05-1-53-323, S106H) is a telegraph or telephone pole with the year 1925 written on it. It is near existing tower 16-7 and proposed new tower T-72 west of Bouquet Reservoir in the ANF in the central segment.

CA-LAN-3475

CA-LAN-3475 (P31-003475, FS# 05-01-53-324, S107H) is a 1948 survey marker near proposed new tower T-70 south of Bouquet Reservoir in the ANF in the central segment.

P19-120077

Site P19-120077 (S108H) is on the map at the SCCIC, but there is no site record form on file. It is located in the southern segment adjacent to the Pardee Substation. All that remains on the ground is an L-shaped row of eucalyptus trees on a berm between the Pardee Substation and the shopping mall to the northeast. This site may have originally been a ranch or farm.

CA-LAN-3477

CA-LAN-3477 (P31-003477, S109H) is the Antelope Substation, which was originally constructed in 1952. It has been modified and equipment has been added over the years (Alsobrook, 2005).

C.4.2 Regulatory Framework

C.4.2.1 Federal

Section 106

The federal law that deals with cultural resources that could be affected by federal undertakings is the National Historic Preservation Act (NHPA) of 1966, as amended. Section 106 of the Act requires that federal agencies take into account the effect of a federal undertaking on properties listed in or eligible for the National Register of Historic Places (NRHP). The agencies must afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. A federal undertaking is a project that is federally funded, takes place on federal land, or that requires a federal permit or license. Section 106 applies to the Project because the Project route crosses the Angeles National Forest and a permit from the USDA Forest Service is required. Because the Project could not be built without a federal permit from the Forest Service, the entire Project, including the Alternatives, is a federal undertaking subject to Section 106.

The regulations that stipulate the procedures for complying with Section 106 are in 36 CFR 800. The Section 106 regulations require:

- Definition of the APE;
- Identification of cultural resources within the APE;
- Evaluation of the identified resources using NRHP eligibility criteria;
- Determination of whether the effects of the undertaking or project on eligible resources would be adverse; and
- Agreement on and implementation of mitigation measures if there would be adverse effects.

The federal agency must seek concurrence from the State Historic Preservation Officer (SHPO) and, in some cases, the ACHP, for its determinations of eligibility, effect, and proposed mitigation measures.

Effects to a cultural resource are potentially adverse only if the resource has been determined eligible for the National Register of Historic Places (NRHP) by the lead federal agency with concurrence by the State Historic Preservation Officer (SHPO). The NRHP eligibility criteria are contained in the following statement:

"The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

> (A)Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
>
> (B)Is associated with the lives of persons important in our past;
>
> (C)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
>
> (D)Has yielded, or may be likely to yield, information important in prehistory or history."

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4).

Archaeological sites are usually evaluated under Criterion D, the potential to yield information important in prehistory. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency, in this case, the USDA Forest Service, makes the determination of eligibility based on the results of the test program and seeks concurrence from the SHPO.

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Angeles National Forest Management Plan

The Angeles National Forest Land and Resources Management Plan (USDA Forest Service, 2005a) contains policies and objectives for cultural resources. These include plan standards required by 36 CFR 219, under which any known heritage resource sites are afforded the same consideration and protection as those properties evaluated as eligible to the National Register of Historic Places until proper evaluation of these sites can occur (USDA Forest Service, 2005b). The USDA Forest Service has also established a Heritage Program that documents known significant cultural properties and identifies all activities that have the potential to adversely affect or do not complement significant cultural properties. In order to address wildland fire risks, the USDA Forest Service implements a full range of fire suppression strategies where natural and cultural resource impacts are primary concerns.

The ANF maintains the confidentiality of cultural resource locations through restricted access to files and maps.

C.4.2.2 State

CEQA is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, that mitigation measures to reduce the impacts be applied.

An Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, 2) is included in a local register of historical resources, as defined in Public Resources Code 5020.1(k), 3) has been identified as significant in an historical resources survey, as defined in Public Resources Code 5024.1(g), or 4) is determined to be historically significant by the CEQA lead agency [CCR Title 14, Section 15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

For this Project, only the fourth definition of an Historical Resource is applicable because there are no resources previously determined eligible or listed on the CRHR, there are no resources included in a local register of historical resources (see Section 4.1.2, "Other Inventories"), and no resources identified as significant in a qualified historical resources survey.

The eligibility criteria for the CRHR are as follows [CCR Title 14, Section 4852(b)]:

> (1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
>
> (2) It is associated with the lives of persons important to local, California, or national history.
>
> (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

(4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)].

Archaeological sites are usually evaluated under Criterion 4, the potential to yield information important in prehistory. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The CEQA lead agency, in this case, the CPUC, makes the determination of eligibility based on the results of the test program. Cultural resources determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to an Historical Resource (as defined by CEQA) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)].

C.4.2.3 Local

County of Los Angeles

The County of Los Angeles General Plan has goals and policies regarding cultural resources. The General Plan is in the process of being updated. The 2004 draft of the update (County of Los Angeles, 2004) contains the following goals and policies:

Goal 0.2: Adequate protective measures to preserve and enhance the County's cultural heritage resources.

Policy 0.2-1: Protect cultural heritage resources, including historic, archaeological, paleontological and unique geologic sites, and significant architectural structures. Such resources are identified by national and state registries, and the Los Angeles County Historical Landmarks Commission.

Policy 0.2-2: Promote public awareness of historic sites and trails, unique geologic formations, and architecturally important structures and encourage private owners to protect such resources.

City of Santa Clarita

The Community Design Element of the City of Santa Clarita's General Plan (City of Santa Clarita, 1991) contains the following goal:

Goal 4: To continue to preserve and maintain special historical features and landmarks as focal points in the planning area.

Policies include identifying historical areas and structures, encouraging design elements to require buffers between historical areas and other land uses, preserving and maintaining historic neighborhoods by requiring compatibility of new development with existing historic structures, allowing flexibility in building codes for historical buildings, and permitting non-conforming uses for historically significant buildings.

City of Lancaster

The City of Lancaster's General Plan (City of Lancaster, 1994) contains the following objective and policy:

Objective 11.1: To identify and preserve sites of significant historical and cultural value.

Actions to implement this objective are contained in Policy 11.1.1 and include requiring site-specific archaeological, historical, and paleontological studies as part of the CEQA review process, develop and maintain archaeological, historical, and paleontological resource maps, include a condition on development permits requiring investigation by an archaeologist of cultural resources found during construction, process requests for inclusion of historic and prehistoric sites and features in state and federal registers, evaluate the possibility of reuse and rehabilitation of historic structures prior to permitting demolition, and establish educational programs related to Lancaster's cultural and historical heritage.

C.4.3 Significance Criteria

The adverse effect criteria in the regulations implementing Section 106 of the NHPA (36 CFR 800.5) apply to properties determined eligible for the NRHP. Significant impacts for cultural resources subject to CEQA are defined by CEQA regulations [CCR Title 14, Section 15064.5(a)]. The significance criteria used in the Impacts Analysis are:

- Criterion CR1: Effects on cultural resources would be adverse if the resources are eligible for the NRHP and if the impacts would materially alter the characteristics that made the resource eligible in a manner that would diminish its integrity.
- Criterion CR2: Effects on cultural resources which are "historic resources" as defined in section 15064.5(a) of the CEQA Guidelines would be significant if the impacts would demolish, destroy, relocate, or alter the resource or its immediate surroundings such that the significance of the resource would be materially impaired..

In the following Impact Analyses, Criteria CR1 and CR2 and considered together because all resources are subject to both Section 106 and CEQA and adverse effects under Section 106 would also be significant impacts under CEQA.

C.4.4 Applicant-Proposed Measures

The cultural resources Applicant-Proposed Measures (APMs) introduced by SCE in the PEA for the proposed Project consisted of recommendations for a "full-scale archaeological reconnaissance" of the Project routes and for construction monitoring. An archaeological survey of the proposed Project route and the Alternative routes was completed as part of the data gathering phase of the preparation of this environmental document. Construction monitoring is incorporated in Mitigation Measure C-14. SCE also noted that mitigation measures requiring testing and data recovery may be needed. These are incorporated in the mitigation measures in Section C.4.5.

C.4.5 Impact Analysis: Proposed Project/Action

As discussed in Section 4.2.1, all cultural resources in the APE for the proposed Project route are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the proposed Project route. For cultural resources that cannot be avoided by the Project, NRHP eligibility must be evaluated and a determination of eligibility must be made by the Forest Service with concurrence by the SHPO. If cultural resources can be avoided, they need not be evaluated as stipulated in the programmatic agreement between the Forest Service, SHPO, and ACHP. All cultural resources in the proposed Project route are also subject to CEQA. For cultural resources that cannot be avoided by the Project, CRHR eligibility must be evaluated. However, all resources determined eligible for the NRHP are automatically eligible for the CRHR and are, therefore, Historical Resources as defined by CEQA. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the proposed Project route APE. Where effects/impacts on NRHP/CRHR-

eligible resources would be adverse/significant, mitigation measures are necessary to reduce the effects/impacts.

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed Project would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed Project would have no effect/impact on this resource.

Resources in the Angeles National Forest

Impact C-1: Potential destruction of CA-LAN-3474 would occur as a result of the Project.

CA-LAN-3474 (S106H) is a telegraph or telephone pole dating from 1925. Historical research and additional field work would be necessary to determine whether it is eligible for the NRHP. Eligibility would depend on whether it was part of an historically important communication system and on the integrity of the system. If the Forest Service and the SHPO determine the communication system of which the pole is a part is eligible, removal of the pole during road grading, tower removal, or proposed new tower construction could constitute an adverse effect. CA-LAN-3474 is directly adjacent to an access road to existing tower 16-7 and proposed new tower T-72. Grading of the access road is proposed. CA-LAN-3474 is also near existing tower 16-7 and proposed new tower T-72. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-1a or C-1b.

Mitigation Measure for Impact C-1

C-1a **Avoid CA-LAN-3474.** CA-LAN-3474 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-1b **Evaluate the NRHP Eligibility of CA-LAN-3474 (S106H) and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of the communication system of which S106H was a part shall be evaluated by carrying out historical research and determining whether other poles outside the APE are still extant. If the Forest Service and the SHPO determine the communication system is NRHP-eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California

Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Impact C-2: Destruction of P19-186857 would occur as a result of the Project.

P19-186857 is the Antelope PS 74 transmission line built by SCE in the 1930s. It would be dismantled and removed as part of the proposed Project. Historical research and additional field work would be necessary to determine whether it is eligible for the NRHP. Eligibility would depend on whether it was part of an historically important electrical transmission system, if the tower design was unique or distinctive, and on the integrity of workmanship and materials of the facilities. If the Forest Service and the SHPO determine the transmission line is eligible, removal of the transmission line facilities would constitute an adverse effect. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-2.

Mitigation Measure for Impact C-2

C-2 **Evaluate the NRHP Eligibility of P19-186857 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of the PS 74 transmission line shall be evaluated by carrying out historical research and determining whether the transmission line facilities retain integrity of workmanship, design, and materials. If the Forest Service and the SHPO determine the transmission line is eligible (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography of an example tower that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Impact C-3: Potential destruction of CA-LAN-3476 would occur as a result of the Project.

CA-LAN-3476 (S105H) is a rock circle which may have a subsurface component. It could be destroyed by grading of an access road needed to reach existing tower 16-7 and proposed tower T-72. Subsurface archaeological testing would be necessary to determine whether it is eligible for the NRHP. Eligibility would depend on whether subsurface archaeological material is present that could yield information important in prehistory (NRHP Criterion D). If the USDA Forest Service and the SHPO determine the site is eligible, its destruction would constitute an adverse effect. This impact is significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-3a or C-3b.

Mitigation Measure for Impact C-3

C-3a **Avoid CA-LAN-3476.** CA-LAN-3476 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-3b **Evaluate the NRHP Eligibility of CA-LAN-3476 and Perform Archaeological Data Recovery if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3476 shall be evaluated by carrying out an archaeological test program to determine whether subsurface archaeological material is present that has the potential to yield information important in prehistory. If the Forest Service and the SHPO determine the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-4: Potential destruction of CA-LAN-3480 would occur as a result of the Project.

CA-LAN-3480 (S101H) is a rock circle which may have a subsurface component. It could be destroyed by ground disturbing activities necessary to construct proposed tower T-32. Subsurface archaeological testing would be necessary to determine whether it is eligible for the NRHP. Eligibility would depend on whether subsurface archaeological is present that could yield information important in prehistory (NRHP Criterion D). If the Forest Service and the SHPO determine the site is eligible, its destruction would constitute an adverse effect (significant impact). This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-4a or C-4b.

Mitigation Measure for Impact C-4

C-4a **Avoid CA-LAN-3480.** CA-LAN-3480 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-4b **Evaluate the NRHP Eligibility of CA-LAN-3480 and Perform Archaeological Data Recovery if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3480 shall be evaluated by carrying out an archaeological test program to determine whether subsurface archaeological material is present that has the potential to yield information important in prehistory. If the Forest Service and the SHPO determine the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-5: Grading of Forest Service roads during Project construction would affect the roads.

The following Forest Service roads would be graded but not re-aligned: Leona Divide Road (6N04.1; P19-186914, USFS 5015300273), Spunky Canyon Road (6N09; P19-186913; USFS 5015300274), Saugus Del Sur Road (6N18; P19-186912; USFS 5015300275), and Del Sur Ridge Road (6N19; P19-120075; USFS

5015300226). This grading would not affect the characteristics that could make the roads eligible. Therefore, under the Programmatic Agreement (PA) between the ANF, the California SHPO, and the Advisory Council on Historic Preservation, the effects on the roads would not be adverse. Impact C-5 would be less than significant with no mitigation incorporated **(Class III)**.

Impact C-6: Potential destruction of CA-LAN-3475 would occur as a result of the Project.

CA-LAN-3475 (P31-003475, FS# 05-01-53-324, S107H) is a survey marker from 1948. Historical research and additional field work would be necessary to determine whether it is eligible for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3475 is eligible, removal of the marker during road grading, tower removal, or proposed new tower construction could constitute an adverse effect. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-6a or C-6b.

Mitigation Measure for Impact C-6

C-6a **Avoid CA-LAN-3475.** CA-LAN-3475 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-6b **Evaluate the NRHP Eligibility of CA-LAN-3475 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3475 shall be evaluated by carrying out historical research. If the Forest Service and the SHPO determine that CA-LAN-3475 is eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Resources Outside the Angeles National Forest

Impact C-7: Potential destruction of portions of CA-LAN-3478 would occur as a result of the Project.

CA-LAN-3478 (P19-003478, S104H) consists of water storage enclosures, foundations from water storage enclosures, and a cattle-branding pen. Portions of the site could be affected by removal of existing towers 22-7 and 22-8 and construction of proposed new tower T-101. In addition, an access road would be graded in order to access existing tower 22-7 and proposed new tower location T-101, which was introduced in the proponent's PEA. If the Forest Service and the SHPO determine that the site is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-7a or C-7b, Impact C-7 would be reduced to a less-than-significant level (**Class II**).

C-7a **Avoid CA-LAN-3478.** CA-LAN-3478 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-7b **Evaluate the NRHP Eligibility of CA-LAN-3478 and Perform Historical Documentation and/or Archaeological Data Recovery if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3478 shall be evaluated by carrying out historical research and an archaeological test program to determine whether subsurface archaeological material is present that has the potential to yield information important in prehistory. If the Forest Service and the SHPO determine the site is eligible under Criterion D (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and. Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). If the site is determined eligible under Criteria A or B (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and Forest Service will ensure that the documentation is completed and filed.

Impact C-8: The integrity of CA-LAN-1334/H and the Cochem Ranch site could be degraded by the Project.

CA-LAN-1334/H consists of a prehistoric archaeological site and the Cochem Ranch buildings and structures. Both the prehistoric and historic period components may be eligible, but eligibility cannot be evaluated without an archaeological test program, and historical research and architectural description by an architectural historian. If CA-LAN-1334/H is eligible, impacts would result from removal of existing tower 23-2 and construction of proposed new tower T-104. Tower removal and construction of the proposed new tower could materially alter a portion of the archaeological site and could impact the integrity of setting of the ranch structures. If the Forest Service and the SHPO determine that the site is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-8a or C-8b, Impact C-8 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-8

C-8a **Avoid CA-LAN-1334/H.** CA-LAN-1334/H and the Cochem Ranch buildings shall be avoided by all Project construction activities by moving the location for proposed new tower T-104 off-site and removing existing tower 23-2 without disturbing the ground, in accord with the avoidance and protection measures in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-8b **Evaluate the NRHP eligibility of CA-LAN-1334 and Cochem Ranch and Perform Historical Documentation and/or Archaeological Data Recovery if Eligible.** Prior to initiating any construction activities in the vicinity of CA-LAN-1334/H, an archaeological test program will be completed in order to provide information necessary to evaluate the prehistoric component of CA-LAN-1334/H for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible under Criterion D (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted by removal of existing tower 23-2 and for the portion of the site that will be impacted for installation of proposed new tower T-104, if this proposed tower location cannot be moved off the archaeological site. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The complex of buildings and structures known as the Cochem Ranch will be evaluated for NRHP eligibility by an architectural historian prior to construction. If the Forest Service and SHPO determine that the Cochem Ranch is eligible under Criteria A, B, or C (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and Forest Service will ensure that the documentation is completed and filed

Impact C-9: The ability to recover potentially important archaeological information from CA-LAN-3132 would be impaired by the Project.

CA-LAN-3132 is a house site from the historic period. Although no domestic refuse was seen on the surface, there could be subsurface buried domestic refuse, which could be used to address research questions about the early settlement of the Haskell Canyon area. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. The road in the side canyon where CA-LAN-3132 is located is proposed as Pulling Location #7. Use of this area as a pulling location could materially impair the ability to recover important information from this potentially eligible archaeological site. If the Forest Service and the SHPO determine that the site is eligible, effects/impacts would be significant without mitigation. With implementation of Mitigation Measure C-9a or C-9b Impact C-9 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-9

C-9a **Avoid CA-LAN-3132.** CA-LAN-3132 shall be avoided by all Project construction activities including use of the site area as a pulling location. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving the pulling location or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-9b **Evaluate the NRHP Eligibility of CA-LAN-3132 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3132 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3132, an archaeological test program will be completed in order to provide information necessary to evaluate CA-LAN-3132 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-10: Potential destruction of CA-LAN-3479 would occur as a result of the Project.

CA-LAN-3479 (S102H) is a trash scatter from the historic period in the northern segment. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction of proposed new tower T-107 could destroy a portion of the archaeological site. If the Forest Service and the SHPO determine that the site is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-10a or C-10b, Impact C-10 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-10

C-10a **Avoid CA-LAN-3479.** CA-LAN-3479 shall be avoided by all Project construction activities by moving the location of proposed new tower T-107 away from the site, one of the measures for avoidance in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-10b **Evaluate the NRHP Eligibility of CA-LAN-3479 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3479 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3479, an archaeological test program will be completed in order to provide information necessary to evaluate the CA-LAN-3479 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-11: The ability to recover potentially important cultural information from CA-LAN-3131 would be impaired by the Project.

CA-LAN-3131 consists of building foundations and a large refuse deposit dating to the early twentieth century. The refuse deposit could provide information about both hog farming and commercial food service in the early twentieth century. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. A new road to provide access to proposed new tower T-26 is proposed to cross the refuse deposit. Grading for road construction could materially impair the ability to recover important

information from this potentially eligible archaeological site. If the Forest Service and the SHPO determine that the site is eligible, this would be a significant impact. With implementation of Mitigation Measure C-11a or C-11b, Impact C-11 would be reduced to a less-than-significant level **(Class II)**.

Mitigation Measures for Impact C-11

C-11a **Avoid CA-LAN-3131.** CA-LAN-3131 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as rerouting the access road or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-11b **Evaluate the NRHP Eligibility of CA-LAN-3131 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3131 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3131, an archaeological test program will be completed in order to provide information necessary to evaluate CA-LAN-3131 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-12: Modification of CA-LAN-3477 would occur as a result of the Project.

CA-LAN-3477 (P19-003477, S109H) is the SCE Antelope Substation located in the northern segment. Historical research and additional field work would be necessary to determine whether it is eligible for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3477 is eligible, modification of the substation as part of the Project could constitute an adverse effect. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-12.

Mitigation Measure for Impact C-12

C-12 **Evaluate the NRHP Eligibility of CA-LAN-3477 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3477 shall be evaluated by carrying out historical research. If the Forest Service and the SHPO determine that CA-LAN-3477 is eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Impact C-13: Potential destruction of P19-120077 would occur as a result of the Project.

P19-120077 (S108H) is a site from the historic period now indicated on the surface only by a row of eucalyptus trees. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction could destroy a portion of the archaeological site. If the Forest Service and the SHPO determine that the site is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-13a or C-13b, Impact C-13 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-13

C-13a **Avoid P19-120077.** P19-120077 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the Programmatic Agreement between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-13b **Evaluate the NRHP Eligibility of P19-120077 and Perform Archaeological Data Recovery if Eligible.** If site P19-120077 cannot be avoided, prior to initiating any construction activities in the vicinity of P19-120077, an archaeological test program will be completed in order to provide information necessary to evaluate P19-120077 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-14: Undiscovered cultural resources would be disturbed through Project activities.

Buried or otherwise obscured cultural resources may be present in the Project area If such resources are encountered, this impact would be significant, but can be mitigated to a less-than-significant level through the implementation of Mitigation Measure C-14. Impact C-14 would therefore be less than significant with mitigation incorporated **(Class II).**

Mitigation Measures for Impact C-14

C-14 **Conduct Construction Monitoring in the Project Area, Evaluate the Eligibility of Previously Undiscovered Resources, and Perform Archaeological Data Recovery if Eligible.** All ground-disturbing activities on ridge tops and in canyon bottoms in the Project area shall be monitored by an archaeologist. If an archaeological site is discovered during monitoring, all work within 500 feet of the find shall be halted and the Forest Service District Ranger or Forest Supervisor shall be notified. The Forest Service will evaluate the NRHP eligibility of the find if it cannot be avoided. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest

Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). Construction work that was halted within 500 feet of the find cannot proceed until authorized by the District Ranger or Forest Supervisor.

C.4.6 Alternative 1: Partial Undergrounding of Antelope-Pardee Transmission Line

C.4.6.1 Affected Environment

The cultural background is the same as for the proposed Project route. The first of two underground segments (Northern Segment) would be located in Del Sur Ridge Road, an unpaved road in the Angeles National Forest, for a distance of about four miles. The second underground segment (Southern Segment) would be in the City of Santa Clarita and its sphere of influence for a distance of about 2.9 miles in paved roads between Pardee Substation and Mile 22.7 on the proposed Project route near San Francisquito Canyon Road. The rest of the route is the same as for the proposed Project route. In the Northern and Southern Segments the APE consists of the road rights-of-way and the areas proposed for the transition stations. Impacts and effects on cultural resources could result from trenching in the roads to install the cable and ground disturbing activities necessary to construct the transition stations. In the rest of the route, the APE and impacts are the same as for the proposed Project route.

Records Search Results

The records searches completed for the proposed Project route cover the Alternative 1 area. For the areas where Alternative 1 diverges from the proposed Project route, a total of 16 surveys have been conducted within a quarter mile of the APE. Of these, eight surveys overlie or cross the Northern Segment and five surveys overlie or cross the Southern Segment. The entire Northern Segment was previously surveyed in 2001 (Vance, 2001).

There are six previously recorded cultural resources in or within one-quarter mile of the Northern and Southern Segments of the Alternative 1 APE (Table C.4-2). Four of the six cultural resources are within the APE. All four resources are from the historic period and consist of roads, a transmission line, and a possible farmstead.

Table C.4-2. Cultural Resources Recorded Within One-Quarter Mile of the Alternative 1 APE

Trinomial / Primary Record #	USFS Site #	Historic / Prehistoric	Site Type	In APE *	Date Recorded	Recorded by
19-186857	5015300243	Historic	PS 74 Transmission Line	Yes, N	2003	Gwen Romani
19-120075	5015300226	Historic	Road 6N19	Yes, N	2000, 2001	Darrell W. Vance, Robert J. Wlodarski
19-186912	5015300275	Historic	Road 6N18	Yes, N	2001	Darrell W. Vance
19-003229	5015300276	Historic	Quarry	No	2003	Gwen Romani, Steve Dies
CA-LAN-2071H	N/A	Historic	Structures	No	1992	CRMS
19-120077	N/A	Historic	Possible Farmstead	Yes, S	2005	Koral Ahmet, William Sharp, Michael Lozano

* N = Northern Segment; S= Southern Segment

All of the previously recorded cultural resources in the Alternative 1 APE also occur in the proposed Project route APE. They consist of the SCE PS 74 transmission line, the Del Sur Ridge Road (Road 6N19), and the

Saugus Del Sur Road (6N18) in the Northern Segment in the ANF and a possible farmstead now represented only by a line of eucalyptus trees on a berm in the Southern Segment.

No cultural resources within the APE have been listed on the California State Historic Resources Inventory, the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest.

The City of Santa Clarita lists 33 historic resources in its General Plan (City of Santa Clarita, 1991). Of these, 29 are in Newhall, and therefore not near the APE. Of the other four resources, one, the site of the Asistencia, is near the confluence of the Santa Clara River and Castaic Creek, one is in Placerita Canyon, one is in Soledad Canyon, and one is in San Francisquito Canyon. None of these are within one-quarter mile of the APE. The County of Los Angeles and the City of Lancaster do not have registers of historical resources.

The NAHC conducted a search of its Sacred Lands File and found no Native American cultural resources in the immediate Project area.

Field Survey Results

The areas proposed for the four transition stations were surveyed to identify cultural resources during January, 2006 (Ahmet and Mason, 2006). Del Sur Ridge Road was previously surveyed in 2001 (Vance, 2001) and was not resurveyed. The Pardee-San Francisquito Canyon segment consists of paved roads and was not surveyed because the ground surface is not visible. No previously unrecorded cultural resources were identified as a result of the field surveys of the transition stations. The field survey showed that the previously recorded PS 74 transmission line and the Saugus Del Sur Road (6N18) cross the area proposed for Transition Station 1. The rest of Alternative 1 is the same as the proposed Project route (see Section 4.5 and Ahmet and Mason 2005).

C.4.6.2 Impacts and Mitigation Measures

As discussed in Section 4.2.1, all cultural resources in the APE for Alternative 1 are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the proposed Alternative 1 route. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the Alternative 1 APE. Although present within the proposed Alternative 1 APE, the following two resources will not be impacted by construction of this proposed alternative:

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed alternative would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed alternative would have no effect/impact on this resource.

Resources in the Angeles National Forest

The potential destruction of historical resources CA-LAN-3474 (Impact C-1) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation

Measure C-1a (Avoid CA-LAN-3474) or Mitigation Measure C-1b (Evaluate the NRHP Eligibility of CA-LAN-3474(S106H)) would reduce Impact C-1 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of historical resources P19-186857, the PS 74 Transmission line, as a result of Project activities (Impact C-2) for Alternative 1 would be the same as for the proposed Project (Impact C-2) and would be a significant impact. This impact would also occur outside the ANF. Mitigation Measure C-2 (Evaluate the NRHP Eligibility of P19-186857) would reduce Impact C-2 for Alternative 1 to a less-than-significant level (**Class II**).

The potential destruction of site CA-LAN-3476 (Impact C-3) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-3a (Avoid CA-LAN-3476) or Mitigation Measure C-3b (Evaluate the NRHP Eligibility of CA-LAN-3476) would reduce Impact C-3 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3480 (Impact C-4) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-4a (Avoid CA-LAN-3480) or Mitigation Measure C-4b (Evaluate the NRHP Eligibility of CA-LAN-3480) would reduce Impact C-4 for this alternative to a less-than-significant level **(Class II)**.

Grading of Forest Service roads during construction of Alternative 1 would not permanently alter road alignments (Impact C-5). In total, four Forest Service roads (P19-186913 [6N09], P19-186914 [6N04.1], P19-186912 [6N18], and P19-120075 [6N19]) would be affected by grading for Alternative 1. In addition, Forest Service Road P19-186912 [6N18] will be affected by trenching. However, as with the proposed Project, Impact C-5 for Alternative 1 would be less than significant (**Class III**) and mitigation is not necessary.

The potential destruction of site CA-LAN-3475 (Impact C-6) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-6a (Avoid CA-LAN-3475) or Mitigation Measure C-6b (Evaluate the NRHP Eligibility of CA-LAN-3475) would reduce Impact C-6 for this alternative to a less-than-significant level **(Class II)**.

Resources Not in the Angeles National Forest

The potential destruction of site CA-LAN-3478 (Impact C-7) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-7a (Avoid CA-LAN-3478) or Mitigation Measure C-7b (Evaluate the NRHP Eligibility of CA-LAN-3478) would reduce Impact C-7 for this alternative to a less-than-significant level **(Class II)**.

The integrity of site CA-LAN-1334/H and the Cochem Ranch site would be degraded by this alternative (Impact C-8), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-8a (Avoid CA-LAN-1334/H) or Mitigation Measure C-8b (Evaluate the NRHP Eligibility of CA-LAN-1334/H) would reduce Impact C-8 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3132 would be impaired by this alternative (Impact C-9) , just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-9a (Avoid CA-LAN-3132) or Mitigation Measure C-9b (Evaluate the NRHP Eligibility of CA-LAN-3132) would reduce Impact C-9 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3479 (Impact C-10) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-

10a (Avoid CA-LAN-3479) or Mitigation Measure C-10b (Evaluate the NRHP Eligibility of CA-LAN-3479) would reduce Impact C-10 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3131 would be impaired by this alternative (Impact C-11), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-11a (Avoid CA-LAN-3131) or Mitigation Measure C-11b (Evaluate the NRHP Eligibility of CA-LAN-3131) would reduce Impact C-11 for this alternative to a less-than-significant level **(Class II)**.

The modification of CA-LAN-3477, the Antelope Substation (Impact C-12), associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-12 (Evaluate the NRHP Eligibility of CA-LAN-3477) would reduce Impact C-12 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site P19-120077 (Impact C-13) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-13a (Avoid P19-120077) or Mitigation Measure C-13b (Evaluate the NRHP Eligibility of P19-120077) would reduce Impact C-13 for this alternative to a less-than-significant level **(Class II)**.

Undiscovered cultural resources may be disturbed through activities related to Alternative 1 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 1 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

C.4.7 Alternative 2: Antelope-Pardee East Mid-Slope

C.4.7.1 Affected Environment

The cultural background is the same as for the proposed Project route. Alternative 2 consists of placing the transmission line on towers to be constructed on the eastern slope of Del Sur Ridge and east of Bouquet Reservoir in the ANF. Most of this route is on steep slopes where cultural resources are unlikely to occur. The APE for cultural resources is defined generally as a 200-foot wide corridor within which proposed new towers would be constructed and where impacts from use of stringing set up areas would occur, plus a 15-foot buffer on each side. This 230-foot wide corridor was surveyed, where possible, for cultural resources by ECORP Consulting, Inc. archaeologists (Ahmet and Mason, 2006).

Records Search Results

Prior to initiating the cultural resources fieldwork, in-person records searches were completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, and at the ANF Forest Supervisor's office in Arcadia. In addition, the NAHC was asked to provide a search of its Sacred Lands File. The record searches provided information about previously recorded cultural resources and previous surveys within one-quarter mile of the transmission line route.

A total of 25 surveys have been conducted within a quarter mile of the Alternative 2 APE where the route diverges from the proposed Project route within the ANF. Of these, nine surveys overlie or cross the APE.

For the new portion of the Alternative 2 route within the ANF, there are 12 previously recorded cultural resources in or within one-quarter mile of the APE (Table C.4-3). Five of the 12 cultural resources are within the Alternative 2 APE. All five resources are from the historic period and consist of the PS 74 transmission line and four Forest Service roads. The Forest Service roads are the Del Sur Ridge Road (Road 6N19), Saugus Del Sur Road (6N18), Leona Divide Road (Road 6N04.1), Coarse Gold Road (Road 5N24), and Road 6N08 (road from Bouquet Canyon Road to Sierra Pelona Road). The records search results for Alternative 2 outside the ANF are the same as for the proposed Project route (see Table C.4-1).

Table C.4-3. Cultural Resources Recorded Within One-Quarter Mile of Alternative 2

Trinomial / Primary Record #	USFS Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
19-186857	5015300243	Historic	PS 74 Transmission Line	Yes	2003	Gwen Romani
19-120075	5015300226	Historic	Road 6N19	Yes	2000, 2001	Darrell W. Vance, Robert J. Wlodarski
19-186912	5015300275	Historic	Road 6N18	Yes	2001	Darrell W. Vance
19-186914	5015300273	Historic	Road 6N04.1	Yes	2001	Darrell W. Vance
19-003229	5015300276	Historic	Quarry	No	2003	Gwen Romani, Steve Dies
19-003016	5015300265	Historic	Mine	No	2001	Darrell W. Vance
CA-LAN-978	5015300001	Prehistoric	Midden/ Milling Features	No	1976	John W. Bridgwater
19-186915	5015300272	Historic	Road 5N24	Yes	2001	Darrell W. Vance
19-186904	5015300284	Historic	Road 6N08	Yes	2001	Darrell W. Vance
CA-LAN-983	5015300007	Prehistoric	Milling Features	No	1976	John W. Bridgwater
NA	5015300235	Historic	Structure	No	2002	Douglas H. Milburn, Darrell W. Vance
19-100414	N/A	No Record	N/A	No	N/A	N/A

The City of Santa Clarita lists 33 historic resources in its General Plan (City of Santa Clarita, 1991). Of these, 29 are in Newhall, and therefore not near the APE. Of the other four resources, one, the site of the Asistencia, is near the confluence of the Santa Clara River and Castaic Creek, one is in Placerita Canyon, one is in Soledad Canyon, and one is in San Francisquito Canyon. None of these are within one-quarter mile of the APE. The County of Los Angeles and the City of Lancaster do not have registers of historical resources.

No cultural resources within the APE have been listed on the California State Historic Resources Inventory, the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest.

The Native American Heritage Commission (NAHC) conducted a search of its Sacred Lands File and found no Native American cultural resources in the immediate Project area.

Field Survey Results

Most of the Alternative 2 alignment where it is different from the proposed Project route consists of steep slopes which were not systematically surveyed. The Alternative 2 alignment was surveyed during February, 2006 (Ahmet and Mason, 2006). No previously unrecorded cultural resources were identified as a result of the field survey

C.4.7.2 Impacts and Mitigation Measures

As discussed in Section 4.2.1, all cultural resources in the APE for Alternative 2 are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the

proposed Alternative 2 route. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the Alternative 2 APE. Although present within the proposed Alternative 2 APE, the following two resources will not be impacted by construction of this proposed alternative:

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed alternative would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed alternative would have no effect/impact on this resource.

Resources in the Angeles National Forest

Destruction of historical resource P19-186857, the PS 74 Transmission line, which would occur as a result of Project activities (Impact C-2) for Alternative 2, would be the same as for the proposed Project and would be a significant impact This impact would also occur outside the ANF. Mitigation Measure C-2 (Evaluate the NRHP Eligibility of P19-186857) would reduce Impact C-2 for Alternative 2 to a less-than-significant level (**Class II**).

The potential destruction of site CA-LAN-3480 (Impact C-4) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-4a (Avoid CA-LAN-3480) or Mitigation Measure C-4b (Evaluate the NRHP Eligibility of CA-LAN-3480) would reduce Impact C-4 for this alternative to a less-than-significant level **(Class II)**.

Grading of Forest Service roads during construction of Alternative 2 would not permanently alter road alignments (Impact C-5). In total, four Forest Service roads (P19-186904 [6N08], P19-186914 [6N04.1], P19-186915 [5N24], and P19-120075 [6N19]) would be affected by grading for Alternative 2. However, as with the proposed Project, Impact C-5 for Alternative 2 would be less than significant (**Class III**) and mitigation is not necessary.

Resources Not in the Angeles National Forest

The potential destruction of site CA-LAN-3478 (Impact C-7) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-7a (Avoid CA-LAN-3478) or Mitigation Measure C-7b (Evaluate the NRHP Eligibility of CA-LAN-3478) would reduce Impact C-7 for this alternative to a less-than-significant level **(Class II)**.

The integrity of site CA-LAN-1334/H and the Cochem Ranch site would be degraded by this alternative (Impact C-8), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-8a (Avoid CA-LAN-1334/H) or Mitigation Measure C-8b (Evaluate the NRHP Eligibility of CA-LAN-1334/H) would reduce Impact C-8 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3132 would be impaired by this alternative (Impact C-9), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-9a (Avoid CA-LAN-3132) or Mitigation

Measure C-9b (Evaluate the NRHP Eligibility of CA-LAN-3132) would reduce Impact C-9 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3479 (Impact C-10) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-10a (Avoid CA-LAN-3479) or Mitigation Measure C-10b (Evaluate the NRHP Eligibility of CA-LAN-3479) would reduce Impact C-10 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3131 would be impaired by this alternative (Impact C-11), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-11a (Avoid CA-LAN-3131) or Mitigation Measure C-11b (Evaluate the NRHP Eligibility of CA-LAN-3131) would reduce Impact C-11 for this alternative to a less-than-significant level **(Class II)**.

The modification of CA-LAN-3477, the Antelope Substation (Impact C-12), associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-12 (Evaluate the NRHP Eligibility of CA-LAN-3477) would reduce Impact C-12 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site P19-120077 (Impact C-13) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-13a (Avoid P19-120077) or Mitigation Measure C-13b (Evaluate the NRHP Eligibility of P19-120077) would reduce Impact C-13 for this alternative to a less-than-significant level **(Class II)**.

Undiscovered cultural resources may be disturbed through activities related to Alternative 1 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 2 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

C.4.8 Alternative 3: Antelope-Pardee Single-Circuit 500-kV Towers between Haskell Canyon and Pardee Substation

C.4.8.1 Affected Environment

The cultural background is the same as for the proposed Project route. Alternative 3 consists of adding single circuit 500-kv towers along the proposed Project route between Pardee Substation and just east of Haskell Canyon. The APE for Alternative 3 would be the same as for the proposed Project. The records search and field survey results for this Alternative are the same as for the proposed Project (see Section 4.5 and Ahmet and Mason, 2005).

C.4.8.2 Impacts and Mitigation Measures

As discussed in Section 4.2.1, all cultural resources in the APE for Alternative 3 are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the proposed Alternative 3 route. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the Alternative 3 APE. Although present within the proposed Alternative 3 APE, the following two resources will not be impacted by construction of this proposed alternative:

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed alternative would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed alternative would have no effect/impact on this resource.

Resources in the Angeles National Forest

The potential destruction of historical resource CA-LAN-3474 (Impact C-1) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-1a (Avoid CA-LAN-3474) or Mitigation Measure C-1b (Evaluate the NRHP Eligibility of CA-LAN-3474(S106H)) would reduce Impact C-1 for this alternative to a less-than-significant level **(Class II)**.

Destruction of historical resource P19-186857, the PS 74 Transmission line, which would occur as a result of Project activities (Impact C-2), for Alternative 3, would be the same as for the proposed Project and would be a significant impact. This impact would also occur outside the ANF. Mitigation Measure C-2 (Evaluate the NRHP Eligibility of P19-186857) would reduce Impact C-2 for Alternative 3 to a less-than-significant level (**Class II**).

The potential destruction of site CA-LAN-3476 (Impact C-3) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-3a (Avoid CA-LAN-3476) or Mitigation Measure C-3b (Evaluate the NRHP Eligibility of CA-LAN-3476) would reduce Impact C-3 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3480 (Impact C-4) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-4a (Avoid CA-LAN-3480) or Mitigation Measure C-4b (Evaluate the NRHP Eligibility of CA-LAN-3480) would reduce Impact C-4 for this alternative to a less-than-significant level **(Class II)**.

Grading of Forest Service roads during construction of Alternative 3 would not permanently alter road alignments (Impact C-5). In total, four Forest Service roads (P19-186913 [6N09], P19-186914 [6N04.1], P19-186912 [6N18], and P19-120075 [6N19]) would be affected by grading for Alternative 3. In addition, Forest Service Road P19-186912 [6N18] will be affected by trenching. However, as with the proposed Project, Impact C-5 for Alternative 3 would be less than significant (**Class III**) and mitigation is not necessary.

The potential destruction of site CA-LAN-3475 (Impact C-6) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-6a (Avoid CA-LAN-3475) or Mitigation Measure C-6b (Evaluate the NRHP Eligibility of CA-LAN-3475) would reduce Impact C-6 for this alternative to a less-than-significant level **(Class II)**.

Resources Not in the Angeles National Forest

The potential destruction of site CA-LAN-3478 (Impact C-7) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-7a (Avoid CA-LAN-3478) or Mitigation Measure C-5b (Evaluate the NRHP Eligibility of CA-LAN-3478) would reduce Impact C-7 for this alternative to a less-than-significant level **(Class II)**.

The integrity of site CA-LAN-1334/H and the Cochem Ranch site would be degraded by the proposed action (Impact C-8) for this alternative, as with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-8a (Avoid CA-LAN-1334/H) or Mitigation Measure C-8b (Evaluate the NRHP Eligibility of CA-LAN-1334/H) would reduce Impact C-8 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3132 would be impaired by the proposed action (Impact C-9) for this alternative, as with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-9a (Avoid CA-LAN-3132) or Mitigation Measure C-9b (Evaluate the NRHP Eligibility of CA-LAN-3132) would reduce Impact C-9 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3479 (Impact C-10) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-10a (Avoid CA-LAN-3479) or Mitigation Measure C-10b (Evaluate the NRHP Eligibility of CA-LAN-3479) would reduce Impact C-10 for this alternative to a less-than-significant level **(Class II)**.

The ability to recover potentially important archaeological information from historical resource site CA-LAN-3131 would be impaired by the proposed action (Impact C-11) for this alternative, as with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-11a (Avoid CA-LAN-3131) or Mitigation Measure C-11b (Evaluate the NRHP Eligibility of CA-LAN-3131) would reduce Impact C-11 for this alternative to a less-than-significant level **(Class II)**.

The modification of CA-LAN-3477, the Antelope Substation (Impact C-12), associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-12 (Evaluate the NRHP Eligibility of CA-LAN-3477) would reduce Impact C-12 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site P19-120077 (Impact C-13) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-13a (Avoid P19-120077) or Mitigation Measure C-13b (Evaluate the NRHP Eligibility of P19-120077) would reduce Impact C-13 for this alternative to a less-than-significant level **(Class II)**.

Undiscovered cultural resources may be disturbed through activities related to Alternative 3 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 3 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

C.4.9 Alternative 4: Antelope-Pardee Re-Routing of New Right-of-Way along Haskell Canyon

C.4.9.1 Affected Environment

The cultural background is the same as for the proposed Project route. Alternative 4 includes a short 2.8-mile re-routed segment of the proposed Project route that would avoid the Veluzat Motion Picture Ranch in Haskell Canyon, between Mile 17.5 and Mile 20.3. The APE for cultural resources is defined generally as a 200-foot wide corridor within which old towers would be removed and proposed new towers would be constructed and where impacts from use of stringing set up areas would occur, plus a 15-foot buffer on each side. This 230-

foot wide corridor was surveyed, where possible, for cultural resources by ECORP Consulting, Inc. archaeologists.

Records Search Results

Prior to initiating the cultural resources fieldwork, in-person records searches were completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, and at the ANF Forest Supervisor's office in Arcadia. In addition, the NAHC was asked to provide a search of its Sacred Lands File. The record searches provided information about previously recorded cultural resources and previous surveys within one-quarter mile of the transmission line route.

A total of 12 surveys have been conducted within a quarter mile of the Alternative 4 APE that is different from the proposed Project route. Of these, two surveys overlie or cross the APE.

There are five previously recorded cultural resources in or within one-quarter mile of the APE where it is different than the proposed Project route (Table C.4-4). One of the five cultural resources is within this portion of the Alternative 4 APE. This is the PS 74 transmission line (P19-186857).

Table C.4-4. Cultural Resources Previously Recorded In or Within One-Quarter Mile of the Alternative 4 APE.

Trinomial / Primary Record #	Forest Service Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
19-186857	5015300243	Historic	PS 74 Transmission Line	Yes	2003	Gwen Romani
CA-LAN-3480	5015300321	Historic	Rock Feature	No	2005	Koral Ahmet, William Sharp, Michael Lozano
19-186915	5015300272	Historic	Road 5N24	No	2001	Darrell W. Vance
CA-LAN-2132H	5015300155	Historic	Transmission Line	No	1993/ 1992	Michael E. Macko
19-003132	N/A	Historic	Structures	No	2003	Peter Messick

No cultural resources within the APE have been listed on the California State Historic Resources Inventory, the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest.

The City of Santa Clarita lists 33 historic resources in its General Plan (City of Santa Clarita, 1991). Of these, 29 are in Newhall, and therefore not near the APE. Of the other four resources, one, the site of the Asistencia, is near the confluence of the Santa Clara River and Castaic Creek, one is in Placerita Canyon, one is in Soledad Canyon, and one is in San Francisquito Canyon. None of these are within one-quarter mile of the APE. The County of Los Angeles and the City of Lancaster do not have registers of historical resources.

The NAHC conducted a search of its Sacred Lands File and found no Native American cultural resources in the immediate Project area.

Field Survey Results

The portion of the Alternative 4 alignment that is different from the proposed Project route was surveyed during February 2006 (Ahmet and Mason, 2006). No previously unrecorded cultural resources were identified as a result of the field surveys of this portion of the Alternative 4 route.

C.4.9.2 Impacts and Mitigation Measures

As discussed in Section 4.2.1, all cultural resources in the APE for Alternative 4 are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the proposed Alternative 4 route. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the Alternative 4 APE. Although present within the proposed Alternative 4 APE, the following two resources will not be impacted by construction of this proposed alternative:

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed alternative would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed Alternative would have no effect/impact on this resource.

Resources in the Angeles National Forest

The potential destruction of historical resource CA-LAN-3474 (Impact C-1) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-1a (Avoid CA-LAN-3474) or Mitigation Measure C-1b (Evaluate the NRHP Eligibility of CA-LAN-3474(S106H)) would reduce Impact C-1 for this alternative to a less-than-significant level **(Class II)**.

Destruction of historical resources P19-186857, the PS 74 Transmission line, would occur as a result of Alternative 4 (Impact C-2). Impact C-2 for Alternative 4 would be the same as for the proposed Project and would be a significant impact. This impact would also occur outside the ANF. Mitigation Measure C-2 (Evaluate the NRHP Eligibility of P19-186857) would be implemented to reduce Impact C-2 for Alternative 4 to a less-than-significant level (**Class II**).

The potential destruction of site CA-LAN-3476 (Impact C-3) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-3a (Avoid CA-LAN-3476) or Mitigation Measure C-3b (Evaluate the NRHP Eligibility of CA-LAN-3476) would reduce Impact C-3 for this alternative to a less-than-significant level **(Class II)**.

Grading of Forest Service roads during construction of Alternative 4 would not permanently alter road alignments (Impact C-5). In total, four Forest Service roads (P19-186913 [6N09], P19-186914 [6N04.1], P19-186912 [6N18], and P19-120075 [6N19]) would be affected by grading for Alternative 4. In addition, Forest Service Road P19-186912 [6N18] will be affected by trenching. However, as with the proposed Project, Impact C-5 for Alternative 4 would be less than significant (**Class III**) and mitigation is not necessary.

The potential destruction of site CA-LAN-3475 (Impact C-6) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-6a (Avoid CA-LAN-3475) or Mitigation Measure C-6b (Evaluate the NRHP Eligibility of CA-LAN-3475) would reduce Impact C-6 for this alternative to a less-than-significant level **(Class II)**.

Resources Not In the Angeles National Forest

The potential destruction of site CA-LAN-3478 (Impact C-7) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-7a (Avoid CA-LAN-3478) or Mitigation Measure C-7b (Evaluate the NRHP Eligibility of CA-LAN-3478) would reduce Impact C-7 for this alternative to a less-than-significant level **(Class II)**.

The integrity of site CA-LAN-1334/H and the Cochem Ranch site would be degraded by this alternative (Impact C-8), just as it would with the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-8a (Avoid CA-LAN-1334/H) or Mitigation Measure C-8b (Evaluate the NRHP Eligibility of CA-LAN-1334/H) would reduce Impact C-8 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site CA-LAN-3479 (Impact C-10) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-10a (Avoid CA-LAN-3479) or Mitigation Measure C-10b (Evaluate the NRHP Eligibility of CA-LAN-3479) would reduce Impact C-10 for this alternative to a less-than-significant level **(Class II)**.

The modification of CA-LAN-3477, the Antelope Substation (Impact C-12), associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-12 (Evaluate the NRHP Eligibility of CA-LAN-3477) would reduce Impact C-12 for this alternative to a less-than-significant level **(Class II)**.

The potential destruction of site P19-120077 (Impact C-13) associated with this alternative would be the same as for the proposed Project and would be a significant impact. Implementation of Mitigation Measure C-13a (Avoid P19-120077) or Mitigation Measure C-13b (Evaluate the NRHP Eligibility of P19-120077) would reduce Impact C-13 for this alternative to a less-than-significant level **(Class II)**.

Undiscovered cultural resources may be disturbed through activities related to Alternative 4 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 4 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

C.4.10 Alternative 5: Antelope-Pardee Sierra-Pelona Re-Route

C.4.10.1 Affected Environment

The cultural background is the same as for the proposed Project route. The Alternative 5 route runs south across the Antelope Valley, Portal Ridge, Leona Valley, the Mount McDill ridge on the Sierra Pelona, and then passes through the Agua Dulce and Vasquez Rocks areas. The east-west portion of the route follows an existing transmission line and crosses several canyons with drainages tributary to the Santa Clara River. Alternative 5 is the same as the proposed Project route from a point just east of Haskell Canyon to the Pardee Substation. The Alternative 5 route crosses about one half mile of Angeles National Forest land south of Leona Valley and crosses seven small parcels of land administered by the US Bureau of Land Management (BLM). The APE for cultural resources is defined generally as a 200-foot wide corridor within which proposed new towers would be constructed and where impacts from use of stringing set-up areas would occur, plus a 15-foot

buffer on each side. This 230-foot wide corridor was surveyed, where possible, for cultural resources by ECORP Consulting, Inc. archaeologists.

Records Search Results

Prior to initiating the cultural resources fieldwork, in-person records searches were completed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, and at the ANF Forest Supervisor's office in Arcadia. In addition, the NAHC was asked to provide a search of its Sacred Land File. The record searches provided information about previously recorded cultural resources and previous surveys within one-quarter mile of the transmission line route.

A total of 69 surveys have been conducted within a quarter mile of the Alternative 5 APE where it is different from the proposed Project route. Of these, 32 surveys overlie or cross the APE.

There are 84 previously recorded cultural resources and six isolated finds (one or two artifacts) in or within one-quarter mile of the APE where it is different from the proposed Project route (Table C.4-5). Ten of the 84 cultural resources are within the Alternative 5 APE. Nine of the resources are prehistoric and one is from the historic period. The prehistoric sites consist of lithic scatters, earth ovens, a milling site, and a rockshelter. The previously recorded resources are separated geographically into two segments, the North-South segment from Antelope Substation to southeast of SR-14 and the East-West Segment in the Vincent-Pardee transmission line corridor from southeast of SR-14 to the proposed Project route. There are no previously recorded resources in the North-South Segment north of Bouquet Canyon Road.

Table C.4-5. Cultural Resources Recorded Within One-Quarter Mile of the APE for Alternative 5.

Trinomial / Primary Record #	USFS Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
LA-LAN-1579H	N/A	Historic	Cemetery	No	1989	Antelope Valley Archaeological Society
19-186924	5015300 260	Historic	SE Lake Hughes pole line	No	NA	NA
CA-LAN-1848	N/A	Prehistoric	Milling/ Artifact Scatter	No	1990	G. Romani and J. Schmidt
CA-LAN-1849H	N/A	Historic	Ranch Buildings	No	1990	G. Romani and J. Schmidt
19-100369 Iso	N/A	Prehistoric	Projectile Point	No	1990	G. Romani and J. Schmidt
19-100367 Iso	N/A	Historic	Mine Shaft	No	1990	G. Romani and J. Schmidt
19-100360 Iso	N/A	Historic	Mining Claim	No	1990	C. Lipo and L. Barrett
19-100361 Iso	N/A	Historic	Rock Cairn	No	1990	C. Lipo and L. Barrett
19-100362 Iso	N/A	Historic	Tin Can	No	1990	C. Lipo and L. Barrett
CA-LAN-1953	N/A	Historic	Mining	No	1990	C. Lipo and L. Barrett
CA-LAN-987	5015300 018	Prehistoric	Quarry; Update-Site is probably historic mining	No	Update-2003	Update-Douglas Milburn
19-100378	N/A	Prehistoric	Milling	No	1984	J.R. Murray and R. White
CA-LAN-1247	05-01-0F-04	Prehistoric	Petroglyph/ Rock Wall	No	1984	Richard L. Wessel
CA-LAN-1280	05-01-0F-07	Prehistoric	Artifact Scatter	No	1985	R. Wessel and G. Anderson
CA-LAN-1383H	05-01-0F-05	Historic	CCC Camp	No	1984	Richard L. Wessel
CA-LAN-1281	05-01-0F-08	Prehistoric	Artifact Scatter/ Cupules	No	1985	Richard L. Wessel
CA-LAN-445	N/A	Prehistoric	Milling	No	1971	H. E. Hanks and D. R. Gallegos
CA-LAN-79	N/A	Prehistoric	Quarry	No	1946	S. L. Peck

Table C.4-5. Cultural Resources Recorded Within One-Quarter Mile of the APE for Alternative 5.

Trinomial / Primary Record #	USFS Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
CA-LAN-529	N/A	Prehistoric	Milling	Yes, N-S	1973	Foster and Anderson
CA-LAN-621	N/A	Prehistoric	Lithic Scatter	No	1973	Foster
19-186607	N/A	Historic	Old Escondido Canyon Road	Yes, N-S	2000	D. E. Purcell
CA-LAN-584	N/A	Prehistoric	Earth Oven	No	1973	Richard L. Wessel
CA-LAN-589	N/A	Prehistoric	Earth Oven	No	1973	Major
CA-LAN-588	N/A	Prehistoric	Earth Oven	Yes, N-S	1973	Major
CA-LAN-634	N/A	Prehistoric	Earth Oven/ Artifact Scatter	No	1973	C. Anderson
CA-LAN-585	N/A	Prehistoric	Rock Alignment/ Flakes	No	1973	Foster
CA-LAN-590	N/A	Prehistoric	Earth Oven/ Flakes	No	1973	C. Anderson
CA-LAN-1216	N/A	Prehistoric	Rock Shelter	Yes, N-S	1983	R. L. Wessel and R. Harwood
CA-LAN-618	N/A	Prehistoric	Milling	No	1973	Major
CA-LAN-620	N/A	Prehistoric	Lithic Scatter	No	1973	Major
19-002551	N/A	Prehistoric	Lithic Scatter	No	1991	R. W. Robinson
CA-LAN-1865	N/A	Prehistoric	Midden	No	1990	J. Simon and D. Whitley
CA-LAN-606	N/A	Prehistoric	Rock Ring/ Tool; Update-Not an archaeological site	No	1973; Update-1990	C. Anderson; Update-D. S. Whitley and J. M. Simon
CA-LAN-607	N/A	Prehistoric	Earth Oven	No	1973	C. Anderson
CA-LAN-628	N/A	Prehistoric	Earth Oven/ Lithic Scatter; Update-Midden/ Artifact Scatter	No	1973; Update-1991	R. L. Wessel; Update-D. S. Whitley and J. M. Simon
CA-LAN-597	N/A	Prehistoric	Earth Oven	No	1973; Update-1991	R. L. Wessel; Update- D. S. Whitley and J. M. Simon
CA-LAN-604	N/A	Prehistoric	Midden	No	1973	C. Anderson
CA-LAN-605	N/A	Prehistoric	Midden	No	1973	C. Anderson
CA-LAN-1866	N/A	Prehistoric	Quarry/ Lithic Scatter	No	1990	D. S. Whitley and J. M. Simon
CA-LAN-619	N/A	Prehistoric	Lithic Scatter	No	1973	Foster
CA-LAN-554	N/A	Prehistoric	Rock Shelters	No	1973	Henton
CA-LAN-616	N/A	Prehistoric	Midden; Update-Not an archaeological site	No	1973; Update-1990	C. Anderson; Update-D. S. McIntosh
CA-LAN-599	N/A	Prehistoric	Lithic Scatter	No	1973	R. L. Wessel
CA-LAN-550	N/A	Prehistoric	Earth Oven/ Lithic Scatter	No	1973	Larson
CA-LAN-551	N/A	Prehistoric	Earth Oven	No	1973	Larson
CA-LAN-552	N/A	Prehistoric	Earth Oven	No	1973	Larson
CA-LAN-1856	N/A	Prehistoric	Earth Oven	Yes, E-W	1990	J. Simon and D. Whitley
CA-LAN-1854	N/A	Prehistoric	Midden/ Artifact Scatter	No	1990	J. Simon and D. Whitley
CA-LAN-1862	N/A	Prehistoric	Earth Oven	No	1990	J. Simon and D. Whitley
CA-LAN-594	N/A	Prehistoric	Midden	No	1973	Major
CA-LAN-1855	N/A	Prehistoric	Lithic Scatter	No	1990	J. Simon and D. Whitley
CA-LAN-596	N/A	Prehistoric	Midden	No	1973	Gary, Dan, and Chuck Anderson
CA-LAN-1860	N/A	Prehistoric	Rock shelter/ Artifact Scatter	No	1990	J. Simon and D. Whitley
CA-LAN-1861	N/A	Prehistoric	Lithic Scatter	No	1990	J. Simon and D. Whitley
CA-LAN-1859	N/A	Prehistoric	Petroglyphs	No	1990	J. Simon and D. Whitley
CA-LAN-559	N/A	Prehistoric	Lithic Scatter	No	1973	C. King
CA-LAN-2046	N/A	Prehistoric	Lithic Scatter	No	1992	Whitley and Simon
CA-LAN-591	N/A	Prehistoric	Lithic Scatter	Yes, E-W	1973	C. Anderson and J. Foster

Table C.4-5. Cultural Resources Recorded Within One-Quarter Mile of the APE for Alternative 5.

Trinomial / Primary Record #	USFS Site #	Historic / Prehistoric	Site Type	In APE	Date Recorded	Recorded by
CA-LAN-592	N/A	Prehistoric	Lithic Scatter	Yes, E-W	1973	C. Anderson and J. Foster
CA-LAN-543	N/A	Prehistoric	Artifact Scatter	No	1973	Henton
CA-LAN-587	N/A	Prehistoric	Artifact Scatter	No	1973	King and Wessel
CA-LAN-593	N/A	Prehistoric	Lithic Scatter	No	1973	Foster, Henton, and Anderson
CA-LAN-586	N/A	Prehistoric	Earth Oven	Yes, E-W	1973	King and Wessel
CA-LAN-565	N/A	Prehistoric	Earth Oven	No	1973	G. W. Major
CA-LAN-564	N/A	Prehistoric	Lithic Scatter	No	1973	Major
CA-LAN-572	N/A	Prehistoric	Lithic Scatter	No	1973	Foster, Wessel, and Major
CA-LAN-573	N/A	Prehistoric	Lithic Scatter	No	1973	Foster
CA-LAN-1145	N/A	Prehistoric	Lithic Scatter	No	1984	Carol Rector
19-100354 Iso	N/A	Prehistoric	Scraper	No	1987	A. George Toren
CA-LAN-1340	N/A	Prehistoric	Lithic Scatter	No	1987	A. George Toren
CA-LAN-1339	N/A	Prehistoric	Lithic Scatter	No	1987	A. George Toren
CA-LAN-533	N/A	Prehistoric	Milling	No	1973	C. King
CA-LAN-610	N/A	Prehistoric	Lithic Scatter	Yes, E-W	1973	Foster
CA-LAN-574	N/A	Prehistoric	Quarry/ Lithic Scatter	No	1973	Major and Larson
CA-LAN-609	N/A	Prehistoric	Lithic Scatter	No	1973	Foster
CA-LAN-632	NA	Prehistoric	Lithic Scatter/Earth Oven	No	1973	Foster, Henton
CA-LAN-612	NA	Prehistoric	Lithic Scatter	No	1973	C. Anderson
CA-LAN-614	N/A	Prehistoric	Lithic Scatter	Yes, E-W	no date	C. Anderson
CA-LAN-613	N/A	Prehistoric	Rock Shelter/ Flakes	No	1973	C. Anderson
CA-LAN-615	N/A	Prehistoric	Earth Oven	No	1973	C. Anderson
CA-LAN-601	N/A	Prehistoric	Lithic Scatter	No	1973	R. L. Wessel
CA-LAN-608	N/A	Prehistoric	Lithic Scatter	No	1973	Foster
19-002902	N/A	Historic	Mining	No	2001	J.S., J.W., I.C. Alexandrowicz
19-186611	N/A	Historic	Building	No	2000	D. E. Purcell
CA-LAN-2407	N/A	Historic	Building/ Trash Scatter	No	1996	James J. Schmidt and June Schmidt
19-003132	N/A	Historic	Structures	No	2003	Peter Messick
19-003131	N/A	Historic	Foundations	No	2003	Peter Messick
CA-LAN-2132H	5015300 155	Historic	Transmission Line	No	1993/ 1992	Michael E. Macko

N-S = North-South Segment; E-W = East-West Segment

North-South Segment

CA-LAN-529 was recorded in 1973 as a milling site with pestles, metates, and a bowl. It is located on a on the West Route near Anthony Road.

P19-186607 is the Old Escondido Canyon Road which is an abandoned automobile road that connected Acton with Sierra Highway in Saugus. Artifacts along the road dated to no earlier than the 1930s.

CA-LAN-588 was recorded in 1973 as an earth oven indicated by fire-affected rock and ashy soil. It is located on a ridge north of SR-14.

CA-LAN-1216 is a small rockshelter located north of SR-14. It had a dry-laid rock wall across the rockshelter entrance when recorded in 1983. There were no associated artifacts. CA-LAN-1216 is on federal land administered by the U.S. Bureau of Land Management.

East-West Segment

CA-LAN-1856 was recorded in 1990 as an earth oven with fire-affected rock and midden soil. It is located along the transmission line corridor east of SR-14.

CA-LAN-591 is an artifact scatter with both flaked and ground stone recorded in 1973. It is in a relatively level mesa area east of SR-14.

CA-LAN-592 was recorded in 1973 as a lithic flake scatter near CA-LAN-591.

CA-LAN-586 was recorded as an earth oven with fire-affected rock and one flaked tool in 1973. It is east of SR-14.

CA-LAN-610 was recorded in 1973 as a small lithic flake scatter and a possible rock-lined pit located west of SR-14.

CA-LAN-614 was recorded as a lithic scatter west of SR-14.

No cultural resources within the APE have been listed on the California State Historic Resources Inventory, the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, or the California Points of Historical Interest.

The City of Santa Clarita lists 33 historic resources in its General Plan (City of Santa Clarita, 1991). Of these, 29 are in Newhall, and therefore not near the APE. Of the other four resources, one, the site of the Asistencia, is near the confluence of the Santa Clara River and Castaic Creek, one is in Placerita Canyon, one is in Soledad Canyon, and one is in San Francisquito Canyon. None of these are within one-quarter mile of the APE. The County of Los Angeles and the City of Lancaster do not have registers of historical resources.

The NAHC conducted a search of its Sacred Lands File and found no Native American cultural resources in the immediate Project area.

Field Survey Results

The Alternative 5 APE, where it differs from the proposed Project route, was surveyed to identify cultural resources during February, 2006 (Ahmet and Mason, 2006). The APE consists of a 230-foot wide corridor centered on the Alternative 5 transmission line route. Survey of the BLM parcels crossed by the Alternative 5 route was carried out under Fieldwork Authorizations issued by the Ridgecrest and Palm Springs Field Offices of the BLM. The segment of Alternative 5 in the Angeles National Forest was surveyed under a special use permit from the ANF. Where possible, the survey was carried out by a three-person crew on foot walking in parallel transects 15 meters apart. Some areas could not be surveyed due to steep slopes, impassable vegetation, or inaccessibility due to poor roads. Previously unrecorded sites were recorded using DPR 523 primary and archaeological site record forms. Previously recorded sites were updated, if necessary, using DPR continuation 523 forms. The portion of the Alternative 5 route that is the same as the proposed Project route was surveyed in 2005 (Ahmet and Mason, 2005).

The Alternative 5 survey corridor where it differs from the proposed Project route contains 13 newly recorded sites, eight from the historic period and five that are prehistoric. In addition, nine of the previously recorded sites were updated. The portion of Alternative 5 that is the same as the proposed Project route contains the Los Angeles Aqueduct (CA-LAN-2105H), the Los Angeles Aqueduct Transmission Line (CA-LAN-2132H), and historic period site P19-120077.

North-South Segment

CA-LAN-3537 (Alt 5-112H) consists of a single utility line made up of approximately 20-ft-high wooden poles running in a southwest to northeast direction. Two date stamps for 1940 and 1941 were observed on the poles. The utility line was once a power line shown by the notches still visible in the poles where the crossbeams once existed. The crossbeams have since been removed and the line now holds a telephone line. The utility line crosses both the East Route and the West Route near Anthony Road.

CA-LAN-3538 (Alt 5-114H) consists of a small earthen dam and watering trough that was made and used by ranchers. It is near Mount McDill. The watering trough is a metal basin fed by a pipe that collects water from a spring. The overflow from the basin was collected in a depression behind an earthen dam.

P19-100577 (Alt 5-1004) is an isolated historic artifact consisting of a Coca-Cola bottle with a maker's mark indicating it was made in 1946. It is located on the West Route near Anthony Road.

CA-LAN-529 was updated. The prehistoric ground stone artifacts originally recorded at this site in 1973 could not be relocated. This site is on land owned by the Archaeological Conservancy. The presence of an archaeological excavation unit and a surface scrape area indicate the Conservancy has recovered these artifacts. A historic period refuse deposit was found near this location. The refuse deposit contains glass bottle fragments and ceramic tableware fragments. The bottle glass includes sun-colored amethyst glass made during the early twentieth century and canning jar fragments.

P19-186607, the Old Escondido Canyon Road, was relocated and found to be as recorded.

CA-LAN-588, recorded as an earth oven in 1973, could not be relocated.

CA-LAN-1216, a rockshelter, was relocated. A portion of the rock wall across the entrance has collapsed since the site was recorded in 1983.

East-West Segment

CA-LAN-1856, an earth oven recorded in 1990, is no longer present. It appears to have been destroyed by erosion. The site area now consists of exposed bedrock.

CA-LAN-591 was relocated and the site area was increased beyond the boundary recorded in 1973. Two metate fragments and a single mano were found, as well as over 80 flakes, nine cores, four hammer stones, and a flake used as a tool.

CA-LAN-592, a flake scatter recorded in 1973, could not be relocated at the recorded location. However, the enlarged boundary for CA-LAN-591 brings this site near the location given for CA-LAN-592.

CA-LAN-586, an earth oven recorded in 1973, was relocated and was found to be as originally described. However, the flaked tool observed in 1973 is no longer present.

CA-LAN-610, a lithic scatter and pit recorded in 1973, could not be relocated.

CA-LAN-614, a lithic scatter recorded in 1973, could not be relocated.

CA-LAN-3544 (Alt 5-110H) is a rock cairn and a brass cap surveyor's marker. "US BLM 1947" is stamped on the brass cap.

CA-LAN-3539 (Alt 5-105H) consists of two rock cairns and a brass cap surveyor's marker. "US General Land Office Survey 1947" is stamped on the brass cap.

CA-LAN-3541 (Alt 5-107) consists of an artifact scatter made up of groundstone tools and lithic cores and debitage. A total of three mano fragments were found, as well as a portable double-sided mortar. Site artifacts also included three cores and four flakes.

CA-LAN-3542 (Alt 5-108H) consists of a single utility line made up of approximately 20-foot-high wooden poles running in a southwest to northeast direction. One pole had a stamped date of 1941 on it. The utility line was once a power line and the notches are still visible in the poles where the crossbeams once existed. The crossbeams have since been removed and it now serves as a telephone line.

CA-LAN-3543 (Alt 5-109H) consists of the site of a historic period farmstead or ranch with structural foundations and a series of stone and mortar retaining walls. The area containing the structural remains has been terraced on six levels and contains both interior and exterior concrete pads. The retaining walls are constructed from rhyolite and quartzite cobbles some as high as seven courses. There is also a light scatter of historic building debris scattered throughout the vicinity.

P19-100574 (Alt 5-1003) is an isolated artifact consisting of a granite metate.

P19-100573 (Alt 5-1002) consists of two isolated artifacts from the historic period. The artifacts consist of sun colored amethyst glass from a bottle with small knobs and a milk glass fragment from a canning jar lid.

CA-LAN-3535 (Alt 5-104H) consists of a brass cap section marker and a rock feature with an associated metal pole. The section marker is labeled "County Surveyors Monument."

P19-100572 (Alt 5-1001) consists of two isolated fragments of historic glass. One piece is a sun colored amethyst fragment with 'IAL' embossed on it. The other piece is a small fragment of thick brown glass.

CA-LAN-3534 (Alt 5-101H) is a ranch site consisting of two small earthen dams, two cattle watering tanks, and a barn foundation. The two dams are located adjacent to each other inside a small drainage. Both dams consist of a single dirt berm running east-west. The cattle tanks lie 60 m south of the two dams and were constructed through a single pour of concrete into a wooden frame. The concrete foundation is relatively long and narrow in shape and runs along the contour of the ridge in a north-south direction. A back wall is also present along the eastern side of the foundation as well as an interior post line with some posts still intact. The site predates the mid-1960s when the nearby mobile home park was constructed.

Cultural resources identified or verified by the field survey within the Alternative 5 APE are listed in Table C.4-6.

Table C.4-6. Cultural Resources Identified Within the Alternative 5 APE.

Trinomial/Primary Record #	Temporary #	Segment	Historic/Prehistoric	Site Type
CA-LAN-3537	Alt 5-112H	N-S	Historic	Utility Poles
CA-LAN-3538	Alt 5-114H	N-S	Historic	Cattle Watering
CA-LAN-3535	Alt 5-1004	N-S	Historic	Isolated Artifact
CA-LAN-529		N-S	Historic	Refuse Deposit
P19-186607		N-S	Historic	Road
CA-LAN-1216		N-S	Prehistoric	Rockshelter
CA-LAN-591		E-W	Prehistoric	Artifact Scatter
CA-LAN-586		E-W	Prehistoric	Earth Oven
CA-LAN-3544	Alt 5-110H	E-W	Historic	Surveyor's Marker
CA-LAN-3539	Alt 5-105H	E-W	Historic	Surveyor's Marker
CA-LAN-3541	Alt 5-107	E-W	Prehistoric	Artifact Scatter
CA-LAN-3542	Alt 5-108H	E-W	Historic	Utility Line

Table C.4-6. Cultural Resources Identified Within the Alternative 5 APE.

Trinomial/Primary Record #	Temporary #	Segment	Historic/Prehistoric	Site Type
CA-LAN-3543	Alt 5-109H	E-W	Historic	Farmstead
P19-100574	Alt 5-1003	E-W	Prehistoric	Isolated Artifact
P19-100573	Alt 5-1002	E-W	Historic	2 Isolated Artifacts
CA-LAN-3539	Alt 5-104H	E-W	Historic	Surveyor's Marker
P19-100572	Alt 5-1001	E-W	Historic	2 Isolated Artifacts
CA-LAN-3534	Alt 5-101H	E-W	Historic	Ranch Site
CA-LAN-2105H		Proposed Project Route	Historic	Los Angeles Aqueduct
CA-LAN-2132H		Proposed Project Route	Historic	Los Angeles Aqueduct Transmission Line
P19-120077		Proposed Project Route	Historic	Eucalyptus Trees

N-S = North-South Segment; E-W = East-West Segment

C.4.10.2 Impacts and Mitigation Measures

As discussed in Section 4.2.1, all cultural resources in the APE for Alternative 5 are subject to Section 106 because a federal permit from the Forest Service is required to construct the transmission line using the proposed Alternative 5 route. Significance Criteria CR1 (based on Section 106 of the NHPA) and Significance Criteria CR2 (based on CEQA) apply to all resources in the Alternative 5 APE. Although present within the proposed Alternative 5 APE, the following thirteen resources will not be impacted by construction of this proposed alternative:

The Los Angeles Aqueduct (CA-LAN-2105H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct. There are no proposed towers near the Aqueduct. The Project transmission line would span the Aqueduct above ground. Therefore, the proposed alternative would have no effect/impact on this resource.

The Los Angeles Aqueduct Transmission Line (CA-LAN-2132H) is located outside of, and south of, the ANF. The Project transmission line route is perpendicular to the route of the Aqueduct Transmission Line. The Project transmission line and the Los Angeles Aqueduct Transmission Line would cross above ground at different heights. Therefore, the proposed alternative would have no effect/impact on this resource.

P19-186607 is an historic road. The transmission line would cross the road above ground and, therefore, the road would not be impacted by Alternative 5.

Alt 5-1001, Alt 5 1002, Alt 5-1003, and Alt 5 1004 are isolated artifacts. By definition, isolates are not sites and do not have sufficient information potential to be eligible under NRHP eligibility Criterion D. Because isolates are not eligible, they are not historical properties under Section 106 or Historical Resources as defined by CEQA. Therefore, there would no impact on historical properties or Historical Resources at these locations as a result of Alternative 5.

CA-LAN-588, CA-LAN-592, CA-LAN-610, CA-LAN-614, and CA-LAN-1856 are archaeological sites that could not be relocated during the field survey. Some of these sites, such as CA-LAN-1856 appear to have been destroyed by erosion. Others, such as CA-LAN-610 and CA-LAN-614, may be natural deposits of lithic material that were erroneously recorded as sites.

CA-LAN-1216 is a rockshelter on land administered by the BLM. The rockshelter is on a steep slope which would not be suitable for a tower location. It would not be affected by construction of a transmission line along the Alternative 5 route.

Resources on Federal Land

The potential destruction of historical resources P19-186857, the PS 74 Transmission line, as a result of Project activities (Impact C-2) for Alternative 5 would be the same as for the proposed Project (Impact C-2) and would be a significant impact. This impact would also occur outside the ANF. Mitigation Measure C-2 (Evaluate the NRHP Eligibility of P19-186857) would reduce Impact C-2 for Alternative 1 to a less-than-significant level (**Class II**).

Undiscovered cultural resources may be disturbed through activities related to Alternative 5 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 5 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

Resources Not on Federal Land

Impact C-15: Potential destruction of CA-LAN-3542 and CA-LAN-3537 would occur as a result of the Project.

CA-LAN-3542 and CA-LAN-3537 are wooden poles that are part of a utility line. Historical research and additional field work would be necessary to determine whether they are eligible for the NRHP. Eligibility would depend on whether they are part of an historically important communication system and on the integrity of the system. If the Forest Service and the SHPO determine the communication system of which the pole is a part is eligible, removal of the pole during road grading, tower removal, or proposed new tower construction could constitute an adverse effect. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-15a or C-15b.

Mitigation Measure for Impact C-15

C-15a **Avoid CA-LAN-3542 and CA-LAN-3537.** CA-LAN-3542 and CA-LAN-3537 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-15b **Evaluate the NRHP Eligibility of CA-LAN-3542 and CA-LAN-3537 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of the communication system of which CA-LAN-3542 and CA-LAN-3537 were a part shall be evaluated by carrying out historical research and determining whether other poles outside the APE are still extant. If the Forest Service and the SHPO determine the communication system is eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Impact C-16: Destruction of CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 would occur as a result of the Project.

CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 are survey markers dating to the 1940s in the East-West Segment. Historical research and additional field work would be necessary to determine whether they are eligible for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 are eligible, removal of the markers during road grading, tower removal, or proposed new tower construction could constitute an adverse effect. This impact is significant, but can be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-16a or C-16b.

Mitigation Measure for Impact C-16

C-16a **Avoid CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544.** CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-16b **Evaluate the NRHP Eligibility of CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 shall be evaluated by carrying out historical research. If the Forest Service and the SHPO determine that CA-LAN-3475 is eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

Impact C-17: Destruction of portions of CA-LAN-3538 would occur as a result of the Project.

CA-LAN-3538 consists of cattle watering facilities on a ridge near Mount McDill in the North-South Segment. If the Forest Service and the SHPO determine that CA-LAN-3538 is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-17a or C-17b, Impact C-17 would be reduced to a less-than-significant level (**Class II**).

C-17a **Avoid CA-LAN-3538.** CA-LAN-3538 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-17b **Evaluate the NRHP Eligibility of CA-LAN-3478 and Perform Historical Documentation and/or Archaeological Data Recovery if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3478 shall be evaluated by carrying out historical research and an archaeological test program to determine whether subsurface archaeological material is present that has the potential to yield information important in prehistory. If the Forest Service and the SHPO determine the site is eligible under Criterion D (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and. Forest Service will ensure that the data recovery report is

completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). If the site is determined eligible under Criteria A or B (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and Forest Service will ensure that the documentation is completed and filed.

Impact C-18: Destruction of part or all of CA-LAN-529 would occur as a result of Project activities.

CA-LAN-529 is a trash scatter from the historic period in the North-South Segment. A test program would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the archaeological site. If the Forest Service and the SHPO determine that the site is eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-18a or C-18b, Impact C-18 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-18

C-18a **Avoid CA-LAN-529.** CA-LAN-529 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-18b **Evaluate the NRHP Eligibility of CA-LAN-529 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-529 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-529, an archaeological test program will be completed in order to provide information necessary to evaluate CA-LAN-529 for eligibility for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-529 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-19: Destruction of part or all of CA-LAN-591 would occur as a result of Project activities.

CA-LAN-591 is a prehistoric artifact scatter in the East-West Segment. A test program would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the archaeological site. If the Forest Service and the SHPO determine that CA-LAN-529 is eligible these impacts would be significant without mitigation. With implementation of Mitigation Measure C-19a or C-19b, Impact C-19 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-19

C-19a **Avoid CA-LAN-591.** CA-LAN-591 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-19b **Evaluate the NRHP Eligibility of CA-LAN-591 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-591cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-591, an archaeological test program will be completed in order to provide information necessary to evaluate CA-LAN-591for eligibility for the NRHP., If the Forest Service and the SHPO determine that CA-LAN-591 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-20: Destruction of part or all of CA-LAN-586 would occur as a result of Project activities.

CA-LAN-586 is a prehistoric earth oven in the East-West Segment. A test program would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the archaeological site. If the site is determined eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-20a or C-20b, Impact C-20 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-20

C-20a **Avoid CA-LAN-586.** CA-LAN-586 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-20b **Evaluate the NRHP Eligibility of CA-LAN-586 if it Cannot be Avoided and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-586 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-586, an archaeological test program will be completed in order to provide information necessary to evaluate CA-LAN-586 for eligibility for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-529 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-21: Destruction of part or all of CA-LAN-3541 would occur as a result of Project activities.

CA-LAN-3541 is a prehistoric artifact scatter in the East-West Segment. A test program would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the archaeological site. If the site is determined eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-21a or C-21b, Impact C-21 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-21

C-21a **Avoid CA-LAN-3541.** CA-LAN-3541 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-21b **Evaluate the NRHP Eligibility of CA-LAN-3541 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3541 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3541, an archaeological test program will be completed in order to provide information necessary to evaluate the CA-LAN-3541 for eligibility for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3541 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-22: Destruction of part or all of CA-LAN-3543 would occur as a result of Project activities.

CA-LAN-3543 is the site of a farmstead from the historic period in the North-South Segment. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the site. If the site is determined eligible, these impacts would be significant without mitigation. With implementation of Mitigation Measure C-22a or C-22b, Impact C-22 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-22

C-22a **Avoid CA-LAN-3543.** CA-LAN-3543 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-22b **Evaluate the NRHP Eligibility of CA-LAN-3543 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3543 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3543, an archaeological test program and historical research will be completed in order to provide information necessary to evaluate CA-LAN-3543 for eligibility for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3543 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Impact C-23: Destruction of part or all of CA-LAN-3534 would occur as a result of Project activities.

CA-LAN-3534 is a ranch site from the historic period in the North-South Segment. A test program and historical research would be necessary to evaluate this site for NRHP eligibility under Criterion D. Construction activities could impact the site. If the site is determined eligible, these impacts would be

significant without mitigation. With implementation of Mitigation Measure C-23a or C-23b, Impact C-23 for Alternative 5 would be reduced to a less-than-significant level (**Class II**).

Mitigation Measures for Impact C-23

C-23a **Avoid CA-LAN-3534.** CA-LAN-3534 shall be avoided by all Project construction activities. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-23b **Evaluate the NRHP Eligibility of CA-LAN-3534 and Perform Archaeological Data Recovery if Eligible.** If site CA-LAN-3534 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3534, an archaeological test program and historical research will be completed in order to provide information necessary to evaluate the CA-LAN-3534 for eligibility for the NRHP. If the Forest Service and the SHPO determine that CA-LAN-3534 is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

Undiscovered Cultural Resources

Undiscovered cultural resources may be disturbed through activities related to Alternative 5 (Impact C-14). Buried or otherwise obscured cultural resources may be present in the Project area. As with the proposed Project, if such resources are encountered, Impact C-14 for Alternative 5 would be significant, but would be mitigated to a less-than-significant level (**Class II**) through the implementation of Mitigation Measure C-14 (Conduct Construction Monitoring in the Project Area and Evaluate the Eligibility of Previously Undiscovered Resources).

C.4.11 No Project/Action Alternative

Under the No Project/Action Alternative, the proposed Project would not be implemented and, therefore, the impacts associated with the proposed Project and alternatives described in Sections C.4.5 through C.4.11 above would not occur. As a result, removal, avoidance, or protection of Cultural Resources would be required.

However, as identified in Section B.4.8.2, in the absence of the proposed Project, other actions would occur. Some wind projects would be postponed or cancelled, or alternatives developed to meet the RPS goal by 2010. SCE would need to accommodate the power load by upgrading existing transmission infrastructure or building new transmission facilities along a different alignment. As for the proposed Project, surveys and investigations to identify the presence and potential to disturb Cultural Resources would be conducted for any alternative project proposed by SCE.

C.4.12 Impact and Mitigation Summary

Table C.4-7 presents a summary of the impacts to cultural resources and proposed mitigation measures.

Table C.4-7. Impact and Mitigation Summary – Cultural Resources

Impact	Impact Significance

	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
C-1: Potential destruction of CA-LAN-3474 would occur as a result of the Project.	Class II C-1a or C-1b	Class II C-1a or C-1b	No Impact None	Class II C-1a or C-1b	Class II C-1a or C-1b	No Impact None
C-2: Destruction of P19-186857 would occur as a result of the Project.	Class II C-2	Class II C-2	Class II C-2	Class II C-2	Class II C-2	Class II C-2
C-3: Potential destruction of CA-LAN-3476 would occur as a result of the Project.	Class II C-3a or C-3b	Class II C-3a or C-3b	No Impact None	Class II C-3a or C-3b	Class II C-3a or C-3b	No Impact None
C-4: Potential destruction of CA-LAN-3480 would occur as a result of the Project.	Class II C-4a or C-4b	Class II C-4a or C-4b	Class II C-4a or C-4b	Class II C-4a or C-4b	No Impact None	No Impact None
C-5: Grading of Forest Service roads during Project construction would affect the roads.	Class III None	Class III None	Class III None	Class III None	Class III None	No Impact None
C-6: Potential destruction of CA-LAN-3475 would occur as a result of the Project.	Class II C-6a or C-6b	Class II C-6a or C-6b	No Impact None	Class II C-6a or C-6b	Class II C-6a or C-6b	No Impact None
C-7: Potential destruction of portions of CA-LAN-3478 would occur as a result of the Project.	Class II C-7a or C-7b	Class II C-7a or C-7b	Class II C-7a or C-7b	Class II C-7a or C-7b	Class II C-7a or C-7b	No Impact None
C-8: The integrity of CA-LAN-1334/H and the Cochem Ranch site could be degraded by the Project.	Class II C-8a or C-8b	Class II C-8a or C-8b	Class II C-8a or C-8b	Class II C-8a or C-8b	Class II C-8a or C-8b	No Impact None
C-9: The ability to recover potentially important archaeological information from CA-LAN-3132 would be impaired by the Project.	Class II C-9a or C-9b	Class II C-9a or C-9b	Class II C-9a or C-9b	Class II C-9a or C-9b	No Impact None	No Impact None
C-10: Potential destruction of CA-LAN-3479 would occur as a result of the Project.	Class II C-10a or C-10b	Class II C-10a or C-10b	Class II C-10a or C-10b	Class II C-10a or C-10b	Class II C-10a or C-10b	No Impact None
C-11: The ability to recover potentially important cultural information from CA-LAN-3131 would be impaired by the Project.	Class II C-11a or C-11b	Class II C-11a or C-11b	Class II C-11a or C-11b	Class II C-11a or C-11b	No Impact None	No Impact None
C-12: Modification of CA-LAN-3477 would occur as a result of the Project.	Class II C-12	Class II C-12	Class II C-12	Class II C-12	Class II C-12	No Impact None
C-13: Potential destruction of P19-120077 would occur as a result of the Project.	Class II C-13a or C-13b	Class II C-13a or C-13b	Class II C-13a or C-13b	Class II C-13a or C-13b	Class II C-13a or C-13b	Class II C-13a or C-13b
C-14: Undiscovered cultural resources would be disturbed through Project activities.	Class II C-14	Class II C-14	Class II C-14	Class II C-14	Class II C-14	Class II C-14
C-15: Potential destruction of part CA-LAN-3542 and CA-LAN-3537 would occur as a result the Project.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-15a or C-15b
C-16: Destruction of CA-LAN-3535, CA-LAN-3539, and CA-LAN-3544 would occur as a result of the Project.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-16a or C-16b
C-17: Destruction of portions of CA-LAN-3538 would occur as a result the Project.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-17a or C-17b
C-18: Destruction of part or all of CA-LAN-529 would occur as a result of Project activities.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-18a or C-18b
C-19: Destruction of part or all of CA-LAN-591 would occur as a result of Project activities.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-19a or C-19b
C-20: Destruction of part or all of CA-LAN-586 would occur as a result of Project activities.	No Impact None	No Impact None	No Impact None	No Impact None	No Impact None	Class II C-20a or C-20b

Table C.4-7. Impact and Mitigation Summary – Cultural Resources						
Impact	Impact Significance					
	Proposed Project	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
C-21: Destruction of part or all of CA-LAN-3541 would occur as a result of Project activities.	No Impact	No Impact	No Impact	No Impact	No Impact	Class II
	None	None	None	None	None	C-21a or C-21b
C-22: Destruction of part or all of CA-LAN-3543 would occur as a result of Project activities.	No Impact	No Impact	No Impact	No Impact	No Impact	Class II
	None	None	None	None	None	C-22a or C-22b
C-23: Destruction of part or all of CA-LAN-3534 would occur as a result of Project activities.	No Impact	No Impact	No Impact	No Impact	No Impact	Class II
	None	None	None	None	None	C-23a or C-23b

C.4.13 Cumulative Effects

C.4.13.1 Geographic Scope

The geographic extent for the analysis of cumulative impacts related to Cultural Resources is defined generally as a ten-mile-wide corridor with the proposed Project route at the center. It is likely that cultural resources similar to those in the Project's 230-foot-wide Area of Potential Effect are present in this area. About 13 miles of this corridor is within National Forest System lands of the ANF. Except for segments at each end of the route located in the City of Lancaster and the City of Santa Clarita, the remainder of the corridor outside of the ANF is in unincorporated Los Angeles County.

C.4.13.2 Existing Cumulative Conditions

Cultural resources, including archaeological sites and historical structures, are impacted by ground disturbing activities associated with development. Current air photos show that development has modified much of the land within the 10-mile-wide corridor south of the ANF. North of the ANF, development extends about 2 miles into the eastern part of the 10-mile-wide corridor in the Lancaster area. In the Agua Dulce area of unincorporated Los Angeles County, existing residential development consists mostly of houses built by individual property owners, rather than as part of planned communities. Ground disturbing activities are not as extensive on these individual properties compared to that in planned communities. Cultural resources within all of these developed areas have been significantly impacted (likely destroyed).

Land modification in the ANF has been minimal because residential and commercial development is not allowed. Land modification in the ANF has resulted from road, aqueduct, and transmission line construction, campground and cabin construction, and flooding of areas by water storage reservoirs. However, land modification resulting from these kinds of development has affected only a small percentage of the area within the 10-mile-wide corridor in the ANF. Therefore, most cultural resources within the ANF have not been impacted.

C.4.13.3 Cumulative Impact Analysis

The list of approved and pending development projects within the 10-mile-wide corridor (Table B.5-1) indicates that most of the remaining undeveloped land south of the ANF in Santa Clarita and unincorporated Los Angeles County will be developed in the near future. In Lancaster, development will move westward from its present location about 3 miles from the proposed Project route to within one to two miles from the proposed Project route. Although the total number of cultural resources (NRHP-eligible and CEQA Historical

Resources) that have been, and will be, impacted as a result of development in all of these areas is unknown, an order of magnitude estimate would be 30 to 70. The proposed Project would create cumulative impacts to cultural resources as described below for each significance criteria:

- **Effects on cultural resources would be adverse if the resources are eligible for the NRHP and if the impacts would materially alter the characteristics that made the resource eligible in a manner that would diminish its integrity (Criterion CR1).** Impacts to NRHP-eligible cultural resources are significant without mitigation. The combined impacts from existing and proposed development in the cumulative impact study area and the impacts on cultural resources from the proposed Project will be significant (Class II) without mitigation. Mitigation measures for proposed Project impacts (Impacts C-1 through C-14), consisting of avoidance, historical documentation, or archaeological data recovery, will reduce impacts to less than significant levels. If the other development projects in the 10-mile-wide corridor also implement these mitigation measures, cumulative impacts on cultural resources will be reduced to less than significant levels. The cumulative effects on NRHP-eligible cultural resources for Alternatives 1 through 5 would be the same as the impacts for the proposed Project.
- **Effects on cultural resources which are "historic resources" as defined in section 15064.5(a) of the CEQA Guidelines would be significant if the impacts would demolish, destroy, relocate, or alter the resource or its immediate surroundings such that the significance of the resource would be materially impaired (Criterion CR2).** Impacts to CEQA Historical Resources are significant without mitigation. The combined impacts from existing and proposed development in the cumulative impact study area and the impacts on cultural resources from the proposed Project will be significant (Class II) without mitigation. Mitigation measures for proposed Project impacts (Impacts C-1 through C-14), consisting of avoidance, historical documentation, or archaeological data recovery, will reduce impacts to less than significant levels. If the other development projects in the 10-mile-wide corridor also implement these mitigation measures, cumulative impacts on cultural resources will be reduced to less than significant levels. The cumulative effects on CEQA Historical Resources for Alternatives 1 through 5 would be the same as the impacts for the proposed Project (Class II).

Although 13 cultural resources were identified along the proposed Project route that could be impacted by the Project, it is probable that many of these will be determined to be ineligible (not significant). Of the eligible resources, it is likely that most of these will be avoided by Project-related construction. Thus, the number of cultural resources where there will be a significant impact as a result of Project activities will be very low, probably less than four. Because there will likely be less than four significant impacts to cultural resources from the proposed Project and 30 to 70 from other projects in the vicinity, the Project's contribution to the magnitude of the cumulative effect on cultural resources would be less than significant **(Class III)**.

C.4.13.4 Cumulative Effects on National Forest System Lands

For the segments of the proposed Project route and the Alternatives in the ANF, there may be zero to one significant cultural resource that cannot be avoided. Therefore, impacts on cultural resources from the Project on National Forest Service (NFS) lands will contribute little, if any, significant impacts to the magnitude of cumulative impacts on cultural resources from other projects on NFS lands. Therefore, impacts to cultural resources on NFS lands would be less than significant **(Class III).**