4.6 CULTURAL RESOURCES

This section of the PEA describes existing conditions related to cultural resources for the proposed Project. Methods employed to identify cultural resources potentially affected by the TRTP are described. Construction and operation of electrical transmission facilities is subject to numerous laws and regulations, so summaries of applicable state and federal laws and regulations as well as local government ordinances related to cultural resources are presented in this section. This section also addresses the potential for Project construction and/or operations and maintenance activities to have a significant impact on historically important cultural resources, unique archaeological resources, or historic properties. Applicant Proposed Measures (APMs) are proposed by SCE as a part of the Project design to avoid and minimize any impacts.

4.6.1 Overview

Ninety-five (95) sites are within the 250-foot or 500-foot survey corridor – 43 prehistoric archaeological sites, 48 historic era archaeological sites, and 4 multi-component sites. Prehistoric Native American archaeological sites discovered comprise bedrock mortars, debitage scatters, habitation deposits (midden), hearths, rock art, rock features, and artifacts. Multi-component sites have both prehistoric and historic era assemblages. Historic era archaeological resources are mainly debris scatters, roads, and ranches as well as mines, mills, and linear features (e.g., Los Angeles Aqueduct and transmission lines). Five sites have been evaluated for historical significance, P-19-187713, CA-KER-3549H, 05015100203, P-19-003090, and P-19-180689. Site 05015100203, the Mt. Lowe Railway District, has been found eligible for listing on the National Register of Historic Places (NRHP); the State Historic Preservation Officer (SHPO) has concurred. Two sites, P-19-003090 and P-19-180689, have been evaluated and found eligible for listing on the NRHP as contributing elements of the Mt. Lowe Railway District; SHPO has concurred. Site CA-KER-3549H has been evaluated and recommended eligible for listing on the NRHP. Site P-19-187713 has been assessed and recommended not eligible for listing on the NRHP.

Eighty-five (85) archaeological resources are outside of the survey corridor but within the ¼-mile wide study area considered in the archival and records searches – 46 prehistoric archaeological sites, 35 historic era archaeological sites, and 4 multi-component sites. Of these, sites, P-19-003088 has been evaluated and found eligible for listing on the NRHP as a contributing element of the Mt. Lowe Railway District with SHPO concurrence. Sites P-36-020465 and P-36-020466 have been assessed and found not eligible for listing on the NRHP with SHPO concurrence. Site P-36-015215 has been found not eligible for listing on the NRHP but is listed as a California Point of Historical Interest. Site P-19-186714 has been
evaluated and recommended not eligible for listing on the NRHP. The remaining archaeological resources in the survey corridor/study area have not been evaluated.

4.6.1.1 Prehistory

Native Americans have inhabited southern California for at least 12,000 years. Evidence of late Pleistocene occupation has been documented for Antelope Valley by Glennan (1971, 1987) and Basgall and Overly (2004). Evidence of early human occupation in the Los Angeles area was recovered from the tar pits of Rancho La Brea. In 1914 the partial skeleton of a young woman was discovered (Merriam, 1914) and a date of 9,000 ± 80 Before Present (BP). (UCLA-1229 BB) was obtained from a bone collagen sample (Berger et al., 1971). The presence of early projectile point types along the coast suggests region-wide connections among early cultures of southeastern California.

The Middle Holocene Period (ca. 5,000 B.C. to A.D. 500) is characterized by a fluorescence of Archaic cultures. Distinctive pressure-flaked projectile points appear in association with core tools, mortars and pestles, and a specialized millingstone industry, as well as substantially constructed rock-lined ovens. In the western Mojave Desert and Antelope Valley changes in human adaptation are probably as a result of the desiccation of Pleistocene lakes caused by the onset of a period of extreme aridity. Sites are commonly found near streams and springs, in rock shelters, and in the vicinity lithic quarry areas. Well-developed middens are relatively rare (Myhrer and Haaklau, 2006:4-4) suggesting relatively mobile human populations and increased reliance upon plant resources.

Innovation of the bow-and-arrow ca. A.D. 500 comes on the forefront of significant climatic anomalies. Reliance on the bow and arrow for hunting, along with the use of bedrock mortars and milling slicks, steatite ornaments and containers, perforated stones, circular shell fishhooks, numerous and varied bone tools, as well as bone and shell ornamentation mark the beginning of this period, lasting to the time of Spanish contact ca. A.D. 1769 (cf. Warren, 1984; Wallace, 1955). Elaborate mortuary customs along with generous use of asphaltum and the development of extensive trade networks are also characteristic of this period. During the latter half of the late prehistoric period in the coastal region, pottery, ceramic pipes, cremation urns, rock paintings, and some European trade goods were added to the previous cultural assemblage (Meighan, 1954). By A.D. 1500, strong ethnic patterns developed among native populations in southern California. This may reflect accelerated cultural change brought about by increased efficiency in subsistence resource procurement, processing, storage and distribution; diffusion of technology from the central coastal region of California and the southern Great Basin; and the need for territorial circumscription and defense in the face of population growth (Douglas et al., 1981:10).
4.6.1.2 History

The first European expeditions into the region were those of Gaspar de Portolà with Franciscan padres Juan Crespi and Junípero Serra in 1769; Padre Francisco Garcés in 1771; Juan Bautista de Anza with padres Francisco Garcés and Juan Díaz in 1774; and Francisco Garcés and Pedro Font in 1775 (Hoover et al., 1990:143-145). In 1772 Pedro Fages traveled through the northern portion of the TRTP in Antelope Valley. In 1776 Francisco Garcés traveled through the Antelope Valley, also visiting the southern portion of the TRTP at Mission San Gabriel (Beck and Haase, 1974:15).

Several missions were established near TRTP routes. Misión de San Gabriel Arcángel (Mission San Gabriel Arcángel or Mission San Gabriel) was established by Father Junípero Serra in 1771, and El Pueblo de Nuestra la Reina de Los Angeles (The City of our Lady Queen of the Angels) was established in 1781 (Hoover et al., 1990:146). Misión de San Fernando Rey de España (Mission San Fernando Rey de España) was founded in 1797 on the El Camino Real in the San Fernando Valley (Hoover et al., 1990:152). The missions became a favorite stopping place for travelers and settlers as well as a source of hides, tallow, soap, cloth, and livestock (cattle, sheep, and horses) for the Los Angeles Basin.

In 1804 the first orange groves were planted at Misión de San Gabriel Arcángel. The first orange orchard on non-mission lands was planted by Luis Vignes in 1834 (Historical Society of Southern California, 2006). The first commercial orange grove was planted by William Wolfskill in 1841 or 1857 (Historical Society of Southern California, 2006; Beck and Haase, 1974:95; Hoover et al., 1990:164). During the 1860s and 1870s orange production was at its height and new railroads were the way for California produce to be shipped to the eastern states (Jaffe and Anusananan, 1996).

During the Spanish period few land concessions were given to settlers and some were eventually patented under Mexican law after 1824. The Project crosses 16 land grants in the Los Angeles area. Trade in hides and tallow flourished and became crucial in California’s economy during this period (Historical Society of Southern California, 2006) during the Mexican period.

The American Period begins in 1848 with the signing of the Treaty of Guadalupe Hidalgo, ending the war between the United States and Mexico (1846–1848) and the Anglo settlement of California begins in earnest. In 1841, the first overland transcontinental immigrant wagon train, the Workman-Rowland party, arrived in Alta California. They were granted Rancho La Puente in the modern cities of La Puente, Hacienda Heights, City of Industry, and Walnut. By the late 1800s agriculture was a major industry in the Antelope Valley, along with gold and borax mining.
In the American period communication and transportation systems were rapidly developed. These included stage lines (e.g., Butterfield Stage Overland Mail), railroads (e.g., Los Angeles & Independence Railroad, Southern Pacific Railroad, Southern Pacific Antelope Valley Line, Union Pacific Lone Pine Branch, Santa Fe Railroad Branch), urban mass transit systems (e.g., Pacific Electric Railway) and roads systems (e.g., Sierra Highway, Angeles Crest Highway, and Angeles Forest Highway, and modern freeways). These provided access to the scores of small towns that eventually aggregated into the greater Los Angeles metropolitan area.

Perhaps the most important stimulus to growth of the Los Angeles area was construction of the Los Angeles Aqueduct between the years 1908 and 1913. It stretched 215 miles from the Owens River to the San Fernando Valley. Growth of the region also was fueled by the development of industries including oil, aviation, and entertainment. Because of its amicable climate, southern California has become a residential and recreation magnet for millions of people.

**4.6.1.3 Ethnography**

At least three Native American groups occupied the Los Angeles Basin, San Gabriel Mountains, and Antelope Valley along TRTP segments: Kitanemuk, Gabrielino (also known as Tongva), and Tataviam (also known as the Alliklik) (Bean and Smith, 1978a; Bean and Smith, 1978b; Blackburn and Bean, 1978; King and Blackburn, 1978; Kroeber, 1925). The southern half of Antelope Valley may have been home to another group known as Beñmè or Vanyume (Earle, 2002). There are no ethnographically documented Kitanemuk, Gabrielino, Tataviam or Vanyume villages along TRTP segments.

Little is known of these pre-contact Native American cultures. Kitanemuk, Tataviam, and Vanyume followed a mobile existence as food resources became available seasonally in various parts of their desert range. Permanent villages may not have existed in favor of temporary camps occupied by varying numbers of families who followed an acceptable leader. Preferred locations would have been regularly reoccupied or reused. The Gabrielino occupied from 50 to 100 mainland villages at the time of European contact. Each village had an average population of 50–100 people. The Gabrielino were semi-sedentary, seasonally leaving central villages to gather resources in small groups (Bean and Smith, 1978a:544).

Early contact with Europeans forced changes on Native Americans. These changes included the Spanish mission system, military campaigns, and introduced diseases which spread rapidly and decimated the Native American population. Native groups were greatly reduced and incorporated in the Spanish–American economy by the 1830s. They were grouped by Spanish and others into three categories: residents of Hispanic ranchos; day laborers who
lived around missions and towns; and those who remained in the interior rancherias, adhering to a more traditional way of life. The decimation of the Native American population increased during the smallpox epidemics of 1863 and 1870, reducing most Native American populations to less than 80 percent of their pre-contact size.

The Gabrielino/Tongva continue to live in the greater Los Angeles area today. Active tribal groups include the Gabrielino/Tongva Tribe and the Gabrielino/Tongva Band of Mission Indians of San Gabriel. The Fernandeño Tataviam Band of Mission Indians maintains the tribal traditions and government of their ancestors. The Tinoqui-Chalola Council of Kitanemuk and Yowlumne Tejon Indians are among the groups that represent Kitanemuk today. A Special Interest Area (SIA) in the Angeles National Forest (ANF), Aliso-Arrastre Middle and North, is in Serrano or Beñemè/Vanyume, Tataviam, and Gabrielino territory and crossed by Segments 6 and 11. The area exemplifies the range of Native American technological use areas and habitation sites and has a tremendous heritage resource value (USDA, 2005:85).

### 4.6.2 Technical Methodology

Methods employed to identify cultural resources associated with the TRTP are discussed in detail in the cultural resources Technical Appendix I. Methods are summarized below.

Pre-field research for the Cultural Resources Inventory for the Project involved a record and literature review conducted at the South Central Coastal Information Center (Fullerton), the San Bernardino Archaeological Information Center (Redlands), and the Southern San Joaquin Valley Information Center (Bakersfield). A records and literature review was also conducted at the Angeles National Forest Supervisor’s Office in Arcadia. Records were examined to determine what previously reported cultural resources exist within the TRTP right-of-way and within at least one-quarter mile of transmission lines and other facilities. All site inventory information in the ANF was provided by the ANF. Published and unpublished archaeological, historical, and ethnographic literature was reviewed for the same purpose and to describe the cultural setting of the TRTP.

A request was submitted to the California Native American Heritage Commission (NAHC) to consult their Sacred Lands files to identify culturally significant properties along Project segments. In a letter dated February 20, 2007 the NAHC reported that no sacred lands were known to the NAHC in the TRTP or the immediate vicinity of Segments 4, 5, 6, 7, 8, 9, and 11. Due to changes in the project description another request was sent on April 4, 2007 to the NAHC to consult their Sacred Lands files for lands not previously considered, including Segment 10 and Segment 10 Alternatives A and B. The NAHC replied on April 23, 2007 indicating that a number of sites known to contain human remains exist in the vicinity of the
TRTP and recommending that organizations and individuals on the NAHC contacts list for Kern and Los Angeles counties be consulted. NAHC correspondence is reproduced in Technical Appendix I.

A systematic intensive archaeological pedestrian survey of TRTP Segments 4, 5, 6, 7, 8, 9, 10, and 11 was conducted between November 11, 2006 and April 4, 2007. A typical survey corridor is 250 feet wide, bisected by the transmission line; 500 feet wide for portions of Segments 6 and 11 within the boundaries of Angeles National Forest. The goal and purpose of this intensive inventory was to identify and record newly discovered archaeological resources and to revisit, update and define accurate site boundaries for previously recorded resources using GPS.

Cultural resources recorded during survey were documented using the standard California Department of Parks and Recreation 523 forms. Site records, sketch maps and photographs were computerized, and checked for errors and consistency. A GIS database was created which includes previously recorded site information, new sites and studies conducted in the area. Results are documented in Technical Appendix I.

4.6.3 Regulations, Plans, and Standards

4.6.3.1 California Public Resources Code and CEQA Guidelines

The California Environmental Quality Act (CEQA) and CEQA Guidelines provide for the protection of cultural resources that qualify and define historical resources as including the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code 5024.1, Title 14 CCR 4850 et seq.).

- A resource included in a local resource is included in a local register of historic resources, as defined in sec. 5020.1(k) of the Public Resources Code, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the Public Resources Code (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered an historical resource, provided the lead agencies determination is supported by substantial evidence in light of the whole record.
Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the California Register of Historical Resources (Pub. Res. Code 5024.1, Title 14 CCR 4852).

If an archaeological resource does not fall within the definition of a “historical resource” it may meet the definition of a “unique archaeological resource” (Pub. Res. Code 21083.2). A “unique archaeological resource” is considered significant if it meets any of the criteria to qualify as follows:

- It is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind
- Is at least 100 years old and possesses substantial stratigraphic integrity
- Involves important research questions that historical research has shown can be answered only with archaeological methods

A project with an impact that may cause a substantial adverse change in the significance of an historical resource is considered to have a significant adverse impact on the environment (CEQA Guidelines 15064.5[4] [b]).

Section 15064.5(b) defines, “A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 15064.5(b) continues:

1. Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

2. The significance of an historical resource is materially impaired when a project:

   (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless that public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.

(3) Generally, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) shall be considered as mitigated to a level of less than a significant impact on the historical resource.

(4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

(5) When a project will affect state-owned historical resources, as described in Public Resources Code Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in Public Resources Code 5024.5. Consultation should be coordinated in a timely fashion with the preparation of environmental documents.

CEQA Guidelines section 15064.5(c) states that CEQA is applicable to effects on archaeological sites:

(1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is a historical resource, as defined in subsection (a).
(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

(3) If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2(c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

(4) If an archaeological site is neither a unique archaeological resource nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

A basis for defining the significance of historical resources under CEQA is found at Public Resources Code (PRC) 5024.1, Title 14 CCR Section 4850.3. A California Register of Historical Resources is established, “to identify the state’s historical resources and indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.” Historical resources may be listed in the California Register if they meet the eligibility criteria for listing in the California Register as defined at PRC 5024.1, Title 14 CCR Section 4850.3.

According to CEQA Guidelines Section 15064.5(a) (3), “Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource has integrity and meets at least one of the criteria for listing in the California Register as follows:

- 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’s history or the United States
- It is associated with lives of persons important to local, California, or national history
- 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
• It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation

Integrity, as defined for the California Register, is “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (California Office of Historic Preservation, 2006:2). This means that a historic resource must keep enough of its historic character or appearance to be recognizable as historic. In addition, that historic character must reflect the era in which the resource was historically important.

Integrity is assessed in terms of retention of location, design, setting, materials, workmanship, feeling, and association. For instance, if a resource has never been moved from its original location, then it maintains its integrity of location. To maintain integrity, a resource must possess at least some of the integrity aspects. The more integrity aspects that a resource retains, the better its integrity is. A historic resource can have lost sufficient integrity to be ineligible for listing in the National Register of Historic Places and still be eligible on a California Register level. In fact, a resource may have lost its historic character and still have integrity on a California Register level, if it has the potential to yield significant scientific or historic information or specific data (California Office of Historic Preservation, 2006:2).

CEQA Guidelines at 15064.5(d) and (e) make provision for the discovery and disposition of human remains and reference other applicable state law (e.g., Health and Safety Code Section 7050.5), found in Technical Appendix I. Under these provisions human remains are reported to the appropriate county Coroner who makes a determination whether the remains are Native American. If the remains are determined to be Native American the Coroner must notify the NAHC within 24 hours. The NAHC identifies a Most Likely Descendant who is designated to cooperate with the owner of the land on which the remains were discovered to arrange for the proper disposition of the remains.

CEQA Guidelines at 15064.5(f) make provision for the discovery and disposition of accidental discovery of other historical or archaeological resources:

As part of the objectives, criteria, and procedures required by Public Resources Code 21082, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or
appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.

4.6.3.2 Federal Laws and Regulations

Portions of Segments 6 and 11 cross lands administered by Angeles National Forest. Cultural resources on public lands administered by the Forest are managed according to, among others, the National Historic Preservation Act (P.L. 89-665, as amended; NHPA), Archaeological Resources Protection Act (P.L. 96-95, as amended; ARPA), National Environmental Policy Act (P.L. 91-190, as amended; NEPA), American Indian Religious Freedom Act (P.L. 95-341, as amended; AIRFA), and Native American Graves Protection and Repatriation Act (P.L. 101-601; NAGPRA), applicable regulations (e.g., 36 CFR Part 60, Part 63, Part 296, and Part 800; 43 CFR Part 10), and Executive Orders 13007, 13175, and 13287, and Forest Service policies, including the Land Management Plan for the Angeles National Forest (USDA, 2005). Compliance with these laws, regulations, and policies is the responsibility of the lead federal agency.

Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on “Historic Properties” (36 CFR Part 800). Historic Properties are cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP) for their significance in American history, archaeology, engineering, architecture, or cultural values (36 CFR Part 60.4). The NRHP eligibility criteria are described below.

National Park Service regulation at 36 CFR 60 is the primary reference for determining the historical significance of a cultural resource. The regulation defines the criteria by which a property is determined to be eligible for listing in the NRHP as:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield information important in history or prehistory.

The American Indian Religious Freedom Act (AIRFA) of 1978 directs federal agencies to consult with Native Americans to determine appropriate procedures to protect the inherent
rights of Native Americans to believe, express, and exercise their traditional religions including, but not limited to access to sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

The Archaeological Resources Protection Act (ARPA) of 1979 provides for the protection of archaeological resources more than 100 years old and which occur on federally owned or controlled lands. The statute makes it unlawful to excavate and remove items of archaeological interest from federal lands without a permit, and it defines the process for obtaining such a permit from the responsible federal agency. This process includes a 30-day notification to interested persons, including Indian tribes, by the agency to receive comments regarding the intended issuing of a permit. The law establishes a process for prosecuting persons who illegally remove archaeological materials from lands subject to ARPA. The law also provides for curation of archaeological artifacts, ecofacts, notes, records, photographs and other items associated with collections made on federal lands. Standards for curation are provided for in regulations at 36 CFR 79.

The National Environmental Policy Act (NEPA) of 1970 requires the Federal Government to carry out its plans and programs in such a way as to, “preserve important historic, cultural, and natural aspects of our national heritage” (42 USC § 4331(b)(4)). The intent of the statute is to require that agencies obtain sufficient information regarding historic and cultural properties (including consulting, for example, appropriate members of the public; local, state and other federal government agencies; and Indian tribes, organizations and individuals) to make a determination of the historical and cultural significance of affected historic or cultural properties and to take into account whether irreversible adverse impacts to such resources can or should be avoided, minimized, or mitigated.

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 provides a process for museums and Federal agencies to return certain Native American “cultural items” (i.e., human remains, funerary objects, sacred objects, and objects of cultural patrimony) to lineal descendants, culturally affiliated Indian tribes (i.e., tribes recognized by the Secretary of the Interior), and Native Hawaiian organizations, if the legitimate cultural affiliation of the cultural items can be determined according to the law. Museums, as defined under the statute, are required to inventory cultural items in their possession and determine which items can be repatriated to the appropriate party. Cultural items intentionally or unintentionally excavated and removed from federal lands may be subject to NAGPRA.

Executive Order 13007 directs that in managing federal lands, each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, 1) accommodate access to and ceremonial use of Indian sacred sites by Indian
religious practitioners and 2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites. The EO requires that affected agencies establish a process for implementing the EO.

Executive Order 13175 was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes. "Indian tribe" means an Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a. Relevant federal agencies are directed to establish policies and procedures for implementing consultation with federally recognized tribes on a government-to-government basis.

Executive Order 13287 establishes that, among other things:

- It is the policy of the Federal Government to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government, and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties. The Federal Government shall recognize and manage the historic properties in its ownership as assets that can support department and agency missions while contributing to the vitality and economic well-being of the Nation's communities and fostering a broader appreciation for the development of the United States and its underlying values.

The Land Management Plan (LMP) for the Angeles National Forest (USDA, 2005:25, 85, 90, 108) provides for the protection of significant Heritage Resources (cultural resources) on lands administered by the Forest in compliance with Sections 106 and 110 of the NHPA, and, “to share their values with the American people; and to contribute relevant information and perspectives on natural resource management.” The LMP (USDA, 2005:108) defines three major initiatives for heritage resource management: Heritage Resource Protection; Public Involvement Program; and Forest-wide Heritage Inventory.

4.6.3.3 Local Ordinances and Requirements

Segments of the TRTP cross the jurisdictions of counties and cities that have ordinances or other requirements promoting the protection and preservation of cultural resources. The CPUC has primary jurisdiction over the TRTP because it authorizes the construction, operation, and maintenance of public utility facilities in the State of California. Although
such projects are exempt from local land use and zoning regulations and permitting, General Order (GO) No. 131-D, Section III C requires “the utility to communicate with, and obtain the input of, local authorities regarding land use matters and obtain any non-discretionary local permits.” Such consultation would include addressing any issues that may arise concerning the following local ordinances, plans, and regulations related to cultural resources:

Kern County promotes the preservation of cultural and historic resources in its Land Use/Conservation/Open Space Element of the Kern County General Plan (Kern County, 2004).

The City of Lancaster addresses cultural resources in its Plan for the Living Environment – Historical, Archaeological and Cultural Resources in the City of Lancaster 2020 General Plan (City of Lancaster, 1997). This plan outlines policies for new development and mitigation of negative impacts on cultural resources.

Los Angeles County provides for the preservation of its cultural resources in its General Plan Land Use Element. This element describes new developments’ responsibilities to the preservation of cultural heritage resources and the mitigation of damages that may incur (Los Angeles County, 1993: LU-A21). Los Angeles County also has Local Plans tailored to fit specific unincorporated areas of the county, and some of these also address historic preservation. The Los Angeles County Antelope Valley General Plan addresses cultural resource preservation in its Policy Statements Element under Natural Resources. It provides for the protection of historic and archaeological resources and the mitigation of negative impacts by new developments (Los Angeles County, 1986: V17). The Antelope Valley General Plan includes the unincorporated jurisdictions of Acton and Antelope Acres (Los Angeles County, 1986).

San Bernardino County promotes the preservation of its cultural resources in the San Bernardino County General Plan Conservation Element which provides for the preservation of cultural resources and mitigation of negative impacts from new developments (San Bernardino County, 2007a). Chapter 82.12 of the County of San Bernardino 2007 Development Code creates a Cultural Resources Preservation Overlay district within which measures are laid out in detail to meet the goals of the Conservation Element (San Bernardino County, 2007b).

The City of Baldwin Park addresses cultural resources in its Baldwin Park Historic Resource Code, in Chapter 153 of its Municipal Code (City of Baldwin Park, 2006). The Baldwin Park Historic Resource Code designates the Planning Commission of the City of Baldwin Park as the Historic Resource Advisory Committee. This committee is tasked with upholding the Baldwin Park Historic Resource Code, including overseeing the preservation of cultural
resources, the mitigation of negative impacts by new development, the maintenance of a Local Official Register of Historic Resources and the creation of historic districts.

The City of Duarte addresses cultural resources in the Historic Preservation Element of its General Plan. This element outlines the city’s goals for the preservation of cultural resources and the development of a Historic Resources Ordinance (City of Duarte, 2006).

The City of Pasadena addresses cultural resources in Title 2 Chapter 2.75 of its Municipal Code (City of Pasadena, 2006) and Chapter 17.62 of its Zoning Code (City of Pasadena, 2005). The Municipal code outlines the organization and administration of the city’s Historic Preservation Commission, which is tasked with the designation of historic resources as outlined in the Zoning Code.

The City of Industry addresses cultural resources in the Historic Preservation Element of its General Plan (Troy Helling personal communication).

The City of San Gabriel addresses cultural resources in Chapter 11 of the San Gabriel General Plan (City of San Gabriel, 2004) and Title XV of its Municipal Code (City of San Gabriel, 1996). The General Plan lists known historic resources, outlines its Historic Preservation Ordinance, and suggests improvements to its preservation efforts. The Municipal code describes the procedures for designating places of historic significance.

The City of Monterey Park has a Historical-Heritage Commission as described in its Municipal Code Chapter 2.62 (City of Monterey Park, 2006) and a city goal to preserve Monterey Park historic resources as described in the Resources Element of the city’s General Plan (City of Monterey Park, 2007).

South El Monte addresses cultural resources in Chapter 17.78 Historic Preservation in its Municipal Code. This chapter outlines the creation of a Cultural Resources Management Commission that has the power to designate historic buildings and enforce local, state and federal law (City of South El Monte, 1995).

The City of Temple City addresses cultural resources in the Resource Management Element of its General Plan by stating the city has no known cultural resources and has not been surveyed for cultural resources (Joe Lambert, personal communication, 2007).

The City of La Cañada Flintridge has no ordinances or General Plan elements that directly address cultural resources. They do outline an Open Space Zone in its Municipal Code that can be used to preserve historic areas (City of La Cañada Flintridge, 2000).
The City of Montebello addresses cultural resources in the Conservation Element of its General Plan (City of Montebello, 1975). The city recognizes the importance of historic preservation to Montebello and supports additional research into the city’s history.

The City of Whittier addresses cultural resources in its Municipal Code and General Plan. Chapter 2.50 forms a Historic Resources Commission which oversees the city’s policies towards historic preservation as laid out in its General Plan (City of Whittier, 2006).

The City of Chino does not directly address cultural resources in its General Plan or Municipal Code but it does have an Open Space Conservation Ordinance which can be applied to historic resources (Chuck Coe, personal communication, 2007).

The City of Ontario has a Historic Preservation Program, as described in its Development Code Article 26 Historic Preservation Ordinance. The city also maintains a local list of historic landmarks and districts (City of Ontario, 2002).

4.6.3.4 Personnel Qualifications

Federal agencies are to ensure that qualified personnel responsible for management of cultural resources on Federal lands will meet the Secretary of Interior’s Professional Qualification Standards for archaeology, history, architecture, architectural history, or historical architecture (48 FR 44716; 36 CFR 61).

4.6.4 Significance Criteria

4.6.4.1 California Public Resources Code and CEQA Guidelines

The significance of potential impacts is assessed in accordance with Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) which indicate that a project could have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5
- Disturb any human remains, including those interred outside of formal cemeteries

4.6.4.2 Federal Laws and Regulations

Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on “Historic Properties” (36 CFR Part 800). Historic Properties are cultural
resources listed in or eligible for listing in the National Register of Historic Places (NRHP) for their significance in American history, archaeology, engineering, architecture, or cultural values (36 CFR Part 60.4). The NRHP eligibility criteria are described in Section 4.6.3.2.

4.6.5 Applicant Proposed Measures

SCE has proposed APMs to avoid or minimize any impacts or reduce to a level of less than significant impacts to cultural resources during TRTP construction and operation. Emphasis is placed on avoiding impacts to cultural resources whenever feasible. Proposed measures applied to impacts related to construction activities will also take into account reasonably foreseeable effects of future Project operation and proposed measures will be adequate to prevent or mitigate potential adverse effects to unique archaeological sites, historical resources, and historic properties. Proposed APMs are consistent with applicable laws and regulations.

Ground-disturbing Project construction activities with the potential to affect cultural resources include:

- Creating and using marshalling yards and staging/lay-down areas
- Establishment, repair, reconstruction, and use of access roads and spur roads
- Constructing new transmission line structures including
  - Clearing of footing locations
  - Pad grading
  - Installation of foundations
  - Structure assembly
  - Structure erection
- Stringing conductor and ground wire
- Establishing pulling sites
- Constructing guard structures
- Constructing it facilities
- Establishing helicopter landing zones
- Ground-disturbing demolition and reconstruction of existing facilities or new construction at existing facilities
• Substation construction and/or expansion.

Proposed measures to avoid, minimize, or mitigate potential impacts of construction activities to cultural resources are defined below.

**APM CR-1: Conduct an intensive archaeological inventory of all areas that may be disturbed during construction and operation of the Project.** A complete cultural resource inventory of the Project area has been conducted (see Technical Appendix I). Should the Project change and areas not previously inventoried for cultural resources become part of the construction plan, SCE shall ensure that such areas are inventoried for cultural resources prior to any disturbance. All surveys shall be conducted and documented as per applicable laws, regulations, and guidelines and in accordance with professional standards.

**APM CR-2: Avoid and minimize impacts to significant or potentially significant cultural resources wherever feasible.** To the extent practical, SCE shall avoid or minimize impacts to archaeological resources, regardless of its CRHR or NRHP eligibility status. This includes siting all ground-disturbing activities defined in Section 4.6.5 and other Project components outside a buffer zone established around each recorded archaeological site within or immediately adjacent to the R-O-W.

Because many archaeological resources comprise subsurface deposits, features, and artifacts, it may not be possible to recognize all potentially significant attributes of archaeological resources during archaeological testing. There is the potential for making unanticipated discoveries of previously unidentified remains at archaeological sites that could require efforts to reassess their CRHR or NRHP eligibility. Avoiding impacts or minimizing the area of an archaeological resource that could be affected during construction protects the resource and reduces the possibility that unanticipated discoveries would cause Project delays. SCE would avoid or minimize impacts to archaeological resources wherever practical by redesign, reroute, and implementation of avoidance procedures (i.e., establishing Environmentally Sensitive Areas), capping archaeological sites, or other protective measures within or immediately adjacent to access and spur roads that would be used during construction and operations activities.

Impacts will be avoided or minimized through the following measures prior to construction.

**APM CR-2a: Project Final Design shall avoid direct impacts to significant or potentially significant cultural resources.** To the extent practical, all ground-disturbing activities defined in Section 4.6.5 and other Project components shall be sited to avoid or minimize impacts to cultural resources listed as, or potentially eligible for listing as, unique archaeological sites, historical resources, or historic properties.
APM CR-2b: Conduct a pre-construction Worker Education Program. SCE will design and implement a Worker Education Program that will be provided for all TRTP personnel who have the potential to encounter and alter unique archaeological sites, historical resources, or historic properties, or properties that may be eligible for listing in the CRHR or NRHP. This includes construction supervisors as well as field construction personnel. No construction worker will be involved in ground-disturbing activities without having participated in the Worker Education Program.

The Worker Education Program shall include, at a minimum:

- A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and SCE policies
- A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, SCE policies and other applicable laws and regulations
- A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the TRTP vicinity
- A review of the SCE “Unanticipated Cultural Resources Discovery Plan”

The Worker Education Program may be conducted in concert with other environmental or safety awareness and education programs for the TRTP, provided that the program elements pertaining to cultural resources is provided by a qualified instructor meeting applicable professional qualifications standards.

APM CR-2c: Establish and maintain a protective buffer zone around each recorded archaeological site within or immediately adjacent to the R-O-W. A protective buffer zone will be establish around each recorded archaeological site and treated as an “environmentally sensitive area” within which construction activities and personnel are not permitted. Monitoring will be conducted to ensure that the protective areas are maintained.

APM CR-3: Evaluate the significance of all cultural resources that cannot be avoided. Cultural resources that cannot be avoided and which have not been evaluated to determine their eligibility for listing in the CRHR or NRHP will be evaluated to determine their historical significance. Evaluation studies shall be conducted and documented as per applicable laws, regulations, and guidelines and in accordance with professional standards.

Evaluation of properties will take into account attributes of each property that could contribute to its historical significance. Evaluation procedures will be consistent with
applicable laws, regulations, and guidelines and in accordance with professional standards as follows.

**APM CR-3a: Evaluate the significance of archaeological resources potentially eligible for CRHR or NRHP listing.** Evaluation of archaeological sites would include scientific excavation of a sample of site constituents sufficient to understand the potential of a site to yield information to address important scientific research questions per CRHR eligibility Criterion 4 and NRHP eligibility Criterion D. Sites with rock art will be evaluated to consider their eligibility per CRHR Criterion 1, and NRHP Criterion A or C.

Archaeological testing as part of resource evaluation will be carried out in portions of affected sites to recover an adequate sample of cultural remains that can be used to evaluated the significance of a site per CRHR eligibility Criterion 4 or NRHP Criterion D. Archaeological testing will involve scientific excavations; identification of recovered cultural and ecological remains; cataloging, scientific analysis, and interpretation of recovered materials; preparation of scientific technical reports and reports comprehensible to the general public discussing the archaeological program and its results. Reports of any excavations at archaeological sites will be filed with the appropriate Information Center of the California Historical Resources Information System.

**APM CR-3b: Evaluate the significance of buildings and structures resources potentially eligible for CRHR or NRHP listing.** Evaluation of buildings and structures would take into account engineering, aesthetic, architectural and other relevant attributes of each property. Buildings and structures will be evaluated for historical significance per CRHR eligibility Criteria 1, 2 and 3; NRHP criteria A, B, and C. A report of the evaluation of each building or structure will be prepared providing a rationale for an assessment of significance consistent with professional standards and guidelines. Reports of any significance evaluations of buildings and structures will be filed with the appropriate Information Center of the California Historical Resources Information System.

**APM CR3c: Consult Native Americans regarding traditional cultural values that may be associated with archaeological resources.** Archaeological or other cultural resources associated with the TRTP may have cultural values ascribed to them by Native Americans. SCE will consult with Native Americans regarding evaluations of resources with Native American cultural remains.

**APM CR-4: Minimize unavoidable impacts to significant cultural resources, including Unique Archaeological Sites, Historical Resources, and Historic Properties.** SCE will make reasonable efforts to avoid adverse Project effects to unique archaeological sites, historical resources, and historic properties. Nevertheless, it may not be possible to situate all
TRTP facilities to completely avoid impacts to significant cultural resources. Impacts to significant cultural resources will be minimized by implementing the following measures.

**APM CR4-a: Implement measures to minimize impacts to significant archaeological sites.** Prior to construction and during construction, the following measures will be implemented by SCE to minimize unavoidable impacts to significant archaeological sites.

- To the extent practical, all ground-disturbing activities defined in Section 4.6.5 and other Project components shall minimize ground surface within the bounds of unique archaeological sites, historical resources, or historic properties.
- Portions of unique archaeological sites, historical resources, or historic properties that can be avoided will be protected as environmentally sensitive areas and will remain undisturbed by construction activities.
- Monitoring by qualified professionals and/or Native Americans to ensure that impacts to sites are minimized will be carried out at each affected cultural resource for the period during which construction activities pose a potential threat to the site and for as long as there is the potential to encounter unanticipated cultural or human remains.
- Additional archaeological study will be carried out at appropriate sites to ascertain if Project facilities could be located on a portion of a site and cause the least amount of disturbance to significant cultural materials.
- Archaeological data recovery will be carried out in portions of affected significant sites to recover an adequate sample of cultural remains that can be used to address important research questions per CRHR eligibility Criterion 4 or NRHP Criterion D. Archaeological data recovery will involve scientific excavations; identification of recovered cultural and ecological remains; cataloging, scientific analysis, and interpretation of recovered materials; preparation of scientific technical reports and reports comprehensible to the general public discussing the archaeological program and its results.
- Reports of any excavations at archaeological sites will be filed with the appropriate Information Center of the California Historical Resources Information System.

**APM CR-4b: Implement measures to minimize impacts to significant buildings and structures.** Prior to construction and during construction, SCE will implement the following measures to minimize unavoidable impacts to significant buildings and structures.

- Locate TRTP facilities to minimize effects on significant buildings or structures.
• Document significant architectural and engineering attributes consistent with National Park Service Historic American Buildings Survey/Historic American Engineering Record documentation standards.

• File reports and other documentation with the National Park Service, if appropriate, and appropriate Information Center of the California Historical Resources Information System.

APM CR-5: Prepare and Implement a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan. During construction it is possible that previously unknown archaeological or other cultural resources or human remains could be discovered. Prior to construction SCE will prepare a Construction Monitoring and Unanticipated Cultural Resources Discovery Plan to be implemented if an unanticipated discovery is made. At a minimum the plan shall detail the following elements:

• Worker and supervisor training in the identification of cultural remains that could be found in the TRTP area

• Worker and Supervisor response procedures to be followed in the event of an unanticipated discovery including appropriate points of contact for professionals qualified to make decisions regarding the potential significance of any find

• Identification of persons authorized to stop or redirect work that could affect the discovery and their on-call contact information

• Provide for monitoring of construction activities in archaeologically sensitive areas

• Stipulate a minimum radius around any discovery within which work will be halted until the significance of the resource has been evaluated and mitigation implemented as appropriate

• Procedures for identifying and evaluating the historical significance of any find

• Procedures for consulting Native Americans in the process of identification and evaluation of significance of discoveries involving Native American cultural materials

• Procedures to be followed for the treatment of discovered human remains per current state law and protocol developed in consultation with Native Americans

APM CR-6: Inadvertent Discovery of Human Remains. Any human remains discovered during Project activities will be protected in accordance with current state law as detailed in Technical Appendix I, specifically California Public Resources Code Sections 5097.91 and 5097.98, as amended. The discovery of human remains will be treated as defined in the Construction Monitoring and Unanticipated Cultural Resources Discovery Plan.
Archaeological excavations at sites will not, if at all possible, inappropriately disturb or remove human remains. Native Americans will be consulted to develop a protocol to be followed if human remains are encountered during any Project activity.

**APM CR-7: Native American Participation.** Prior to construction SCE will consult with Native Americans identified by the NAHC as having cultural ties to particular areas of the TRTP. Native Americans will be consulted regarding their participation during significance evaluations and data recovery excavations at archaeological sites with Native American cultural remains, and monitoring during Project construction. Native Americans will be consulted to develop a protocol for working with each group should human remains affiliated with that group be encountered during Project activities.

4.6.5.1 Segment 4

4.6.5.1.1 Environmental Setting. The prehistory and history of the Antelope Valley area along Segment 4 are as described previously in Section 4.6.1. The area of Segment 4 is in the territory of Serrano or Beñemè/Vanyume.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 4 survey corridor are listed in Table 4.6-1 and described in detail in Technical Appendix I. Segment 4 crosses known historic era linear features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: Pacific Crest Trail, Southern Pacific Railroad, and Antelope Valley Line.

None of the documented archaeological resources or other historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR. None of the isolated artifacts would be eligible for CRHR listing but could indicate the possibility of other cultural remains occurring.

4.6.5.1.2 Impact Analysis.

**Construction.** Ground-disturbing Project construction activities have the potential to damage or destroy historical resources, including archaeological sites, buildings and structures if they cannot be avoided and protected. Segment 4 ground-disturbing Project activities with the potential to damage or destroy archaeological and historical resources include:

- Establishment and use of marshalling yards and staging/lay down areas
- Establishment, repair, reconstruction, and use of access roads and spur roads
TABLE 4.6-1
CULTURAL RESOURCES WITHIN SEGMENT 4 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-KER-2172 P-15-002172</td>
<td>Prehistoric campsite, with small lithic scatter and possible hearth</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-KER-733 P-15-000733</td>
<td>Prehistoric lithic scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1783 P-19-001783</td>
<td>Prehistoric lithic scatter with groundstone tools</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-04</td>
<td>Prehistoric lithic scatter with groundstone tools</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-06</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-07</td>
<td>Prehistoric lithic scatter with groundstone tools</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-08</td>
<td>Prehistoric lithic scatter and milling slab</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-09</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-02H</td>
<td>Historic era debris scatter (ca. 1900-1945) and rock ring</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-03/H</td>
<td>Prehistoric lithic scatter and historic era debris scatter (ca. 1920-1940)</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-02</td>
<td>Rhyolite flake and core</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-04</td>
<td>Rhyolite core</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
</tbody>
</table>

- Construction of new transmission line towers including:
  - Clearing of footing locations
  - Pad grading
  - Installation of foundations
  - Tower assembly
  - Tower erection

- Stringing conductor and ground wire
ENVIRONMENTAL IMPACT ANALYSIS
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- Establishing pulling sites
- Construction of guard structures
- Construction of it facilities
- Establishing helicopter landing zones
- Ground-disturbing demolition and reconstruction of existing facilities or new construction in existing facilities

Marshalling yards are of two types, primary and secondary. Primary marshalling yards are generally 5 acres in area while secondary yards are from 1 to 3 acres. Marshalling yards may be created using substantial grading and other land alterations to achieve the relatively level area required for accumulating and accessing equipment and materiel. Locations of Segment 4 marshalling yards have not been determined. Cultural resources inventory of each proposed yard will be conducted if it falls wholly or partially outside the 250-foot-wide corridor for archaeological survey completed to date for Segment 4.

New access roads will be created for Segment 4 construction and operations purposes. Some existing roads may be employed and these may require some alteration for Project purposes. Access roads are through roads leading to and following along the transmission line. Spur roads originate from an access road and lead to a transmission line tower or other Project facility where they terminate. Road construction, reconstruction, repair, and maintenance requires some level of grading (sometimes involving significant ground-disturbing movement), and may require excavation for installing drainage or other features. Access and spur roads typically have a minimum 12-foot-wide driving surface and may have 2-foot-wide shoulders in addition, for total road widths in excess of 16 feet. A final determination of access and spur road locations and alignments has not been made to date. Cultural resources inventory of each proposed access and spur road will be conducted if any falls wholly or partially outside the area of archaeological survey completed to date for Segment 4.

Construction of each new transmission line tower involves mechanically clearing the location for tower footings (foundations), grading and leveling the pad as necessary, excavations to install foundations, and preparation and use of a materials laydown and tower assembly area (200 feet x 200 feet). In some locations tower pads would have to be graded into slopes, disturbing an area of variable size depending on topography and access. The area around each tower would sustain some level of damage from trucks, cranes, and other equipment. Segment 4 tower sites and associated laydown areas fall within areas subject to archaeological survey. Any variation of tower/laydown area locations that are outside the archaeological survey area will require additional archaeological survey. Final transmission tower locations have not been decided to date.
Conductor and wire stringing, pulling, and splicing require sites measuring 200 feet x 200 feet at various intervals along the transmission line. These areas would require some level of preparation to receive and operate equipment and store materials. Final determination of pulling/splicing site locations has not been made to date. Cultural resources inventory of each proposed pulling/splicing site will be conducted if any falls wholly or partially outside the area of archaeological survey completed to date for Segment 4.

Guard structures are constructed to inhibit conductors from falling on places or structures below them. Construction of guard structures requires an area of approximately 50 feet x 100 feet, involving clearing, grading, installation of foundations, and erection of the structure. Locations of guard structures will fall within the 250-foot-wide archaeological survey corridor but these locations have not been determined yet.

Construction of IT facilities involves, among other things, excavation of a trench to place a cable leading from a transmission line tower to an adjacent substation. The precise location of these facilities is not known at this time. Any area of ground disturbance not already inspected by archaeological survey will be examined before determining IT facilities locations.

Demolition and reconstruction of existing facilities or new construction in existing facilities has the potential to alter facilities not yet evaluated for historical significance, or impact previously unknown buried archaeological resources, or affect cultural resources of significance to Native Americans.

**Native American Consultation.** Apart from correspondence with the NAHC, consultation with Native Americans or other stakeholders regarding the inventory of cultural resources along Segment 4 has not yet occurred. Native Americans or others might be aware of cultural resources that could be affected by the Project and that may qualify as historical resources, or know of unrecognized historically significant attributes of known cultural resources. Knowledgeable persons will be consulted and the inventory of cultural resources amended as appropriate prior to determining locations of Project marshalling yards, access and spur roads, tower sites, conductor/wire pulling splicing sites, guard structures, IT facilities, or conducting other construction activities with the potential to adversely affect historical resources.

**CRHR or NRHP Resource Concerns.** The types of known archaeological and historical resources potentially eligible for listing in the CRHR or NRHP that could be affected by any of the foregoing activities include:
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- Prehistoric Native American archaeological sites comprised of artifact scatters, bedrock milling features, rock art, habitation deposits, or some combination of these constituents

- Multi-component sites comprised of artifact scatters, bedrock milling features, rock art, habitation deposits, or some combination thereof which are of Native American origin (prehistoric or historic era) and which also have artifacts of European or American manufacture, structural remains, or other historic era non-Native American materials

- Historic era archaeological sites that have remains more than 50 years old and which are not of Native American origin

- Structures more than 50 years old such as roads, trails, aqueducts, railroads, electrical systems, and buildings

Impacts to archaeological and historical resources are considered significant if affected archaeological resources are considered “unique,” or if the resource meets the criteria for consideration as a “historical resource” or is eligible for NRHP listing (see Section 4.6.4), and if an impact causes damage to, or the destruction of, material attributes of the resource that make it historically significant. No archaeological or historical resources in the Segment 4 study corridor have been determined to be unique archaeological sites or historical resources but there is no reliable systematic way of determining from agency or CHRIS records the complete inventory of cultural resources determined by State lead agencies to be eligible for CRHR listing.

Resources determined to be historical resources, unique archaeological sites, or historic properties will be managed to avoid or minimize any potentially adverse construction impacts. Impacts would be reduced to a less than significant level by recovering and preserving archaeological information or through documentation of historical attributes of historic buildings and structures. The majority of archaeological and other cultural resources have not been evaluated to determine if they meet the eligibility criteria for listing in the CRHR or NRHP. Unevaluated resources would be managed as though they are historical resources/properties pending evaluation of their CRHR or NRHP status. Resources evaluated for CRHR or NRHP eligibility and found not eligible for the CRHR or NRHP will not be considered historical resources/properties however monitoring of construction activities in the vicinity of such resources will be carried out as a precaution should unanticipated resources be discovered. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

Human remains might also be encountered and disturbed. Human remains are known to occur in some archaeological contexts in the Project vicinity and may occur elsewhere on the landscape. Human remains encountered during Project construction or operations will be
treated according to current state law (see Section 4.6.3). Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

Table 4.6-1 indicates the appropriate APMs to be applied given the known historical significance of each cultural resource along this TRTP Segment.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

**4.6.5.1.3 Mitigation Measures.** This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

**4.6.5.1.4 Impact Significance after Mitigation Measures.** The impacts from Segment 4 would be less than significant.

**4.6.5.2 Segment 5**

**4.6.5.2.1 Environmental Setting.** The environmental setting for cultural resources in Segment 5 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Antelope Valley area along Segment 5 are as described previously in Section 4.6.1. The area of Segment 5 is in the territory of Serrano or Beñemè/Vanyume.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 5 survey corridor are listed in Table 4.6-2 and described in detail in Technical Appendix I. Segment 5 crosses known historic era linear features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: the Sierra (Mint Canyon) Highway and SCE Antelope-Mesa transmission line.

None of the documented archaeological resources or other known historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR.
### TABLE 4.6-2

**CULTURAL RESOURCES WITHIN SEGMENT 5 SURVEY CORRIDOR**

<table>
<thead>
<tr>
<th>Archaeological Site Numbers</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-LAN-1335</td>
<td>Prehistoric bedrock mortars and groundstone tools</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1636</td>
<td>Prehistoric schist boulder with cupule petroglyphs</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1770</td>
<td>Prehistoric hunting blinds with lithic and groundstone scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-001770</td>
<td>Prehistoric hunting blind</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1771</td>
<td>Prehistoric hunting blinds with lithic and groundstone scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-001771</td>
<td>Prehistoric hunting blind</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1956</td>
<td>Prehistoric cupules and oval ring of schist boulders filled with schist fragments</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1957</td>
<td>Prehistoric petroglyph feature</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-806</td>
<td>Prehistoric steatite quarry</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-12</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-13</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-14</td>
<td>Prehistoric lithic scatter and groundstone tools</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-15</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-16</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-17</td>
<td>Prehistoric lithic scatter and quartz assay location</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-18</td>
<td>Prehistoric lithic scatter and groundstone tools</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-19</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-20</td>
<td>Prehistoric bedrock milling features and associated lithics</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-003385</td>
<td>Historic era Holland Poultry Ranch (also known as Tankersley Homestead and Valley View Ranch). Ca. 1939</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-10H</td>
<td>Historic era debris scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-11H</td>
<td>Historic era debris scatter (ca. 1930-1950)</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>
4.6.5.2.2 **Impact Analysis.**

**Construction.** Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 5.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to affected cultural resources in Segment 5. Table 4.6-2 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

4.6.5.2.3 **Mitigation Measures.** This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

4.6.5.2.4 **Impact Significance after Mitigation Measures.** The impacts from Segment 5 would be less than significant.

4.6.5.3 **Segment 6**

4.6.5.3.1 **Environmental Setting.** The environmental setting for cultural resources in Segment 6 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Angeles National Forest (ANF) area and northern end of the Los Angeles Basin along Segment 6 are as described previously in Section 4.6.1. The area of Segment 6 is in the territory of Serrano or Beñemè/Vanyume and Gabrielino.
Known cultural resources documented by archaeologists in the 250-foot-wide and 500-foot wide (ANF) Segment 6 survey corridor are listed in Table 4.6-3 and described in detail in Technical Appendix I. Segment 6 crosses known historic era linear features or other features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: the Pacific Crest Trail between milepost 7 and 8, Rancho Azusa (Duarte), Los Angeles and crossed by the Segment. The SIA exemplifies the range of Native American technological use areas and habitation sites, has a tremendous heritage resource value, and is noted for the high concentration of stone circle features which may be unique to southern California. The stone circles may be the remains of house rings, storage caches, and/or religious sites (USDA, 2005:85).

Only one of the documented known historic era resources, P-19-187713 (Angeles Forest Highway), has been evaluated and determined to be not eligible for listing in the NRHP. None of the other documented historic era archaeological resources are known to be listed in or to have been determined to be eligible for listing in the CRHR.

### 4.6.5.3.2 Impact Analysis.

**Construction.** Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 6.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. For lands administered by the ANF in the Segment the reader is referred to Section 4.6.4 for Section 106 application of the National Historic Preservation Act (NHPA) significance criteria. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to effected cultural resources in Segment 6. Table 4.6-3 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant
<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>05015400076</td>
<td>Historic era road</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>CA-LAN-1299</td>
<td>Prehistoric milling site</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-001300</td>
<td>Prehistoric lithic and groundstone scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-1382</td>
<td>Prehistoric lithic scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-002212</td>
<td>Prehistoric lithic scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-2363</td>
<td>Prehistoric campsite (midden soil, bone, ground stone, pendant fragments, debitage, and shell)</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-2411</td>
<td>Prehistoric campsite with midden, FAR, groundstone (metate and pestle), and debitage</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-3031</td>
<td>Prehistoric lithic and groundstone scatter with midden and hearth feature</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-003031</td>
<td>Prehistoric processing area with midden and lithic scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-003032</td>
<td>Prehistoric occupation area with midden and lithic scatter</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-003018</td>
<td>Three prehistoric midden soil deposits, with FAR.</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-003136</td>
<td>Prehistoric site, including milling stone, cores, debitage</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>05015100076</td>
<td>SCE ANF Roads PIII #9</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>050152000133</td>
<td>Historic era Silver Fish Road</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>050152000136</td>
<td>West Fork Road or Forest Road 2N25</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>CA-LAN-1315H</td>
<td>Mill site for Gold Bar Mining Claim (ca. 1927-1976)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-001315</td>
<td>Historic era debris scatter (Shortcut Picnic Area Trash Dump Site ca. 1920-1960)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>CA-LAN-2206H</td>
<td>Historic era Falcon Mine Adits</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-003037</td>
<td>Historic era Angeles Crest Highway</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>
TABLE 4.6.3 (CONTINUED)
CULTURAL RESOURCES WITHIN SEGMENT 6 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-003606</td>
<td>Historic era Santiago Canyon Road (Forest Road 4N20 ca. 1890’s)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-120074</td>
<td>Historic era Old Shortcut Road (ca. 1920’s)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186545</td>
<td>Historic era Monte Cristo Mine Wagon Road (ca. 1890’s)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186875</td>
<td>Road 3N23 (SCE ANF Roads PIII #7)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186917</td>
<td>Rincon – Red Box – Sawpit Roads Complex (trail by 1907; road by 1942)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186921</td>
<td>Santa Clara Divide Road (Forest Road 3N17). 32 miles of historic era paved and dirt road (trail by 1907; road by 1934)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-187713</td>
<td>Historic era Angeles Forest Highway, completed in 1941</td>
<td>Not eligible NRHP, code 6Z</td>
<td>CR-5</td>
</tr>
<tr>
<td>CA-LAN-1128/H</td>
<td>Also known as CA-LAN-2131. Large prehistoric village/habitation site with midden, FAR, groundstone fragments, lithic tools/debitage, worked bone, beads, and one female burial. Also a historic era component of the site, with a stone foundation, habitation debris, and a poured concrete foundation.</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-001128</td>
<td>Large prehistoric village/habitation site with midden, FAR, groundstone fragments, lithic tools/debitage, worked bone, beads, and one female burial. Also a historic era component of the site, with a stone foundation, habitation debris, and a poured concrete foundation.</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-120072</td>
<td>Prehistoric habitation site with midden, earth ovens, debitage, and groundstone</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
</tbody>
</table>

impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism. Independence Railway, Pacific Electric Railway (most likely), Sierra (Mint Canyon)
As a result of these measures, no operational impacts to cultural resources are expected.

4.6.5.3.3 Mitigation Measures. This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

4.6.5.3.4 Impact Significance after Mitigation Measures. The impacts from Segment 6 would be less than significant.

4.6.5.4 Segment 7

4.6.5.4.1 Environmental Setting. The environmental setting for cultural resources in Segment 7 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Los Angeles Basin along Segment 7 are as described previously in Section 4.6.1. The area of Segment 7 is in Gabrielino territory.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 7 survey corridor are listed in Table 4.6-4 and described in detail in Technical Appendix I. Segment 7 crosses known historic era linear features or other features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: two trails (Old Spanish Trail and Butterfield Stage Route), Mission San Gabriel lands, four ranchos (Potrero Chico, Potrero de Felipe Lugo, San Francisquito, and Azusa) four railways (Southern Pacific, Santa Fe, Pacific Electric, and Los Angeles and Independence), and three transmission lines (Rio Hondo-Vincent No. 2, Antelope-Mesa, and Center-Mesa).

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-186917</td>
<td>Rincon – Red Box – Sawpit roads complex</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>

None of the documented archaeological resources or other known historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR.
4.6.5.4.2 Impact Analysis.

Construction. Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 7.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to affected cultural resources in Segment 7. Table 4.6-4 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

Operations. Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

4.6.5.4.3 Mitigation Measures. This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

4.6.5.4.4 Impact Significance after Mitigation Measures. The impacts from Segment 7 would be less than significant.

4.6.5.5 Segment 8

4.6.5.5.1 Environmental Setting. The environmental setting for cultural resources in Segment 8 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Los Angeles Basin along Segment 8 are as described previously in Section 4.6.1. The area of Segment 8 is in Gabrielino territory.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 8 survey corridor are listed in Table 4.6-5 and described in detail in Technical Appendix I.
TABLE 4.6-5
CULTURAL RESOURCES WITHIN SEGMENT 8 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-120031</td>
<td>Shell scatter with mano</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-120032</td>
<td>Prehistoric trail</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-36-012533</td>
<td>Historic era debris laid as engineered road bed</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-36-012622</td>
<td>Historic era farm (Standard Feeding Co. ca. 1947)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-05H</td>
<td>Remains of a windmill and four water storage devices.</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-024H</td>
<td>Remains of windmill with a well collar and pipe leading to two water towers</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>

Segment 8 crosses known historic era linear features or other features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: three trails (Old Spanish Trail, Butterfield Stage Route, and Mormon Trail), Mission San Gabriel lands, nine ranchos (Santa Ana del Chino, Santa Ana del Chino Addition, Los Nogales, Rincon de la Brea, La Puente, La Habra, La Merced, Potrero Chico, and Potrero Grande) the Chino Adobe; three railways (Los Angeles and Independence, Union Pacific, and Pacific Electric); the Workman Family Cemetery; and the SCE Center-Mesa transmission lines.

None of the documented archaeological resources or other known historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR.

4.6.5.5.2 Impact Analysis.

Construction. Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 8.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to affected cultural resources in Segment 8. Table 4.6-5 indicates the appropriate measures to be applied given the known historical significance of each
cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

**4.6.5.5.3 Mitigation Measures.** This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

**4.6.5.5.4 Impact Significance after Mitigation Measures.** The impacts from Segment 8 would be less than significant.

**4.6.5.6 Segment 9**

**4.6.5.6.1 Environmental Setting.** The environmental setting for cultural resources in Segment 9 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Antelope Valley area and Los Angeles Basin along Segment 9 are as described previously in Section 4.6.1. The area of Segment 9 is in Kitanemuk, Serrano or Beñemè/Vanyume, and Gabrielino territory.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 9 survey corridor are listed in Table 4.6-6 and described in detail in Technical Appendix I.

Only one of the documented known historic era resources, P-19-187713 (Angeles Forest Highway), has been evaluated and determined to be not eligible for listing in the NRHP. None of the other documented historic era archaeological resources are known to be listed in or to have been determined to be eligible for listing in the CRHR. None of the isolated artifacts would be eligible for CRHR listing but could indicate the possibility of other cultural remains occurring.
TABLE 4.6-6
CULTURAL RESOURCES WITHIN SEGMENT 9 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-003477</td>
<td>Historic era Antelope Substation built in 1952 and a water tower which</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td></td>
<td>predates the substation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-19-188676</td>
<td>Historic era transmission towers/</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td></td>
<td>line; Eagle Rock- Pardee transmission line corridor and SCE ANF Roads PIII #1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(originally built in 1925; rebuilt in 1974)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P-19-187713</td>
<td>Historic era Angeles Forest Highway</td>
<td>NRHP not eligible</td>
<td>CR-5</td>
</tr>
<tr>
<td>P-19-188870</td>
<td>Historic era transmission towers/</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td></td>
<td>line; Eagle Rock-Laguna Bell (1922) now Eagle Rock- Mesa (1961)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-02</td>
<td>Rhyolite flake and core</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
</tbody>
</table>

4.6.5.6.2 Impact Analysis.

Construction. Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 9.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to effected cultural resources in Segment 9 Table 4.6-6 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

Operations. Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant
impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

4.6.5.6.3 Mitigation Measures. This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

4.6.5.6.4 Impact Significance after Mitigation Measures. The impacts from Segment 9 would be less than significant.

4.6.5.7 Segment 10

4.6.5.7.1 Environmental Setting. The environmental setting for cultural resources in Segment 10 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Antelope Valley area along Segment 10 are as described previously in Section 4.6.1. The area of Segment 10 is in Kitanemuk territory.

Known cultural resources documented by archaeologists in the 250-foot-wide Segment 10 survey corridor are listed in Table 4.6-7 and described in detail in Technical Appendix I.

**TABLE 4.6-7**

CULTURAL RESOURCES WITHIN SEGMENT 10 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL-SCE-Tehachapi-25</td>
<td>Prehistoric lithic scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-KER-6937H</td>
<td>Primary number 15-012247. Historic era debris dump (ca. 1880-1914)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-34H</td>
<td>Historic era debris scatter (ca. 1908+)</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-06</td>
<td>Chert biface</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-07</td>
<td>Oil can</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-08</td>
<td>Rhyolite EMF</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-09</td>
<td>Rhyolite EMF</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
</tbody>
</table>

Only one of the documented known historic era resources, CA-KER-3549H (Los Angeles Aqueduct), has been evaluated and recommended eligible for listing in the NRHP. However,
the APMs would reduce impacts to this resource to less than significant. None of the other documented archaeological resources or other known historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR. None of the isolated artifacts would be eligible for CRHR listing but could indicate the possibility of other cultural remains occurring.

### 4.6.5.7.2 Impact Analysis

**Construction.** Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 10.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to affected cultural resources in Segment 10 Table 4.6-7 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

### 4.6.5.7.3 Mitigation Measures

This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

### 4.6.5.7.4 Impact Significance after Mitigation Measures

The impacts from Segment 10 would be less than significant.
4.6.5.8 **Segment 11**

4.6.5.8.1 **Environmental Setting.** The environmental setting for cultural resources in Segment 11 is substantially the same as described in PEA Section 4.6.1. The prehistory and history of the Angeles National Forest (ANF) and Los Angeles Basin along Segment 11 are as described previously in Section 4.6.1. The area of Segment 11 is in Serrano or Beñemè/Vanyume, Tataviam, and Gabrielino territory.

Known cultural resources documented by archaeologists in the 250-foot-wide and 500 foot wide (ANF) Segment 11 survey corridor are listed in Table 4.6-8 and described in detail in Technical Appendix I. Segment 11 crosses known historic era linear features or other features that are not recorded on standard DPR 523 series forms. These resources, for the most part, have been built over or may be present, but are no longer identifiable on the ground and include: five trails (Old Spanish Trail, Butterfield Stage Route, El Camino Real, Mojave Indian Trail, and Pacific Crest Trail), Mission San Gabriel lands, three ranchos San Pascual Garfias, San Pascual Wilson, and Santa Anita) four railroads (Los Angeles and Independence, Southern Pacific, Santa Fe, and Pacific Electric Railway), Sierra (Mint Canyon) Highway, El Monte Cemetery, the SCE Bootlegger distribution line, Pacific Crest Trail, and the ANF Aliso-Arra stre Middle and North Special Interest Area (SIA) which is also in Segment 6 (see Segment 6 details).

Three documented historic era resources (05015100203, P-19-003090, and P-19-180689) have been evaluated and determined eligible for listing in the NRHP as either a district or contributing elements to the district. However, the APMs will reduce impacts to these resources to less than significant. One documented historic era resource, P-19-187713, has been evaluated and determined not eligible for listing in the NRHP. None of the other documented archaeological resources or other known historic era resources are known to be listed in or to have been determined to be eligible for listing in the CRHR. None of the isolated artifacts would be eligible for CRHR listing but could indicate the possibility of other cultural remains occurring.

4.6.5.8.2 **Impact Analysis.**

**Construction.** Potential construction effects on cultural resources have been discussed previously in Section 4.6.5.1.2 for TRTP Segment 4 and are the same for Segment 11.

In PEA Section 4.6.5 SCE has proposed measures to avoid or minimize impacts to cultural resources, and to reduce to a level of less-than-significant adverse impacts to significant historical resources, unique archaeological sites, and historic properties. The reader is referred to Section 4.6.5 for details. For lands administered by the ANF in the Segment the
TABLE 4.6-8
CULTURAL RESOURCES WITHIN SEGMENT 11 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA-LAN-2350</td>
<td>Prehistoric seasonal campsite with groundstone tools/midden</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>CA-LAN-2412</td>
<td>Diffuse prehistoric lithic scatter with five mano fragments</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>P-19-002998</td>
<td>Prehistoric: four circular stone features of partially embedded granitic rock</td>
<td>Unknown</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-22</td>
<td>Small milling station with one incipient bedrock mortar</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-35</td>
<td>Two mano fragments, one hammerstone, one milling, slab and five flakes</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-7</td>
</tr>
<tr>
<td>05015100006</td>
<td>Mt. Lowe cable tramway, Echo Mountain Hotel and Mt. Lowe Tavern (ca. 1892-1938)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>05015100063</td>
<td>Historic Era Arroyo Seco Road</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>05015100086</td>
<td>Historic Era Sunset Guard Station Site (ca. 1930's)</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>05015100087</td>
<td>Historic era Mt. Lowe truck trail lower section from Cape of Good Hope to Sunset Guard Station (ca. 1948-1950)</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>05015100192</td>
<td>Historic era Chaney Truck trail (Forest Road 2N65 ca. 1931)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>05015100203</td>
<td>Comprised of Mt. Lowe District with multiple contributing elements.</td>
<td>NRHP District: MT. Lowe Railway District</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>CA-LAN-3152</td>
<td>Historic era remains of Angeles Crest CCC Camp (1930s); foundations and debris</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-003152</td>
<td>Historic era Angeles Crest Highway (ca. 1929-1956)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-003037</td>
<td>Historic era Lower Sam Merrill Trail (built 1934)</td>
<td>Contributing Element NRHP District: MT. Lowe Railway District</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>
TABLE 4.6-8 (CONTINUED)
CULTURAL RESOURCES WITHIN SEGMENT 11 SURVEY CORRIDOR

<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-003099</td>
<td>Millard Canyon Trail with historic era irrigation pipelines and reservoir (ca. late 1800’s)</td>
<td>Not Evaluated as of 2002</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-003638</td>
<td>Historic era Las Flores Canyon Mines (ca. late 19th–early 20th centuries)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186860</td>
<td>Historic era SCE Verdugo Circuit, circa 1930</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186870</td>
<td>Historic era transmission towers/ line; Eagle Rock-Laguna Bell (1922) now Eagle Rock- Mesa (1961) and SCE ANF Roads PIII #4</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186871</td>
<td>Historic era road SCE Mt. Lukens Road, SCE ANF Roads PIII #3 with associated retaining features (ca. 1930s)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186872</td>
<td>Historic era Forest Road 2N66; Brown Mountain Road (trail by 1926; road by 1939)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186873</td>
<td>Historic era Forest Road 2N68; SCE ANF Roads PIII #6 (trail by 1926; road by 1939)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186876</td>
<td>Historic era transmission towers/ line; Eagle Rock-Pardee transmission line corridor and SCE ANF Roads PIII #1 (originally built in 1925; rebuilt in 1974)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186877</td>
<td>SCE ANF Roads PIII #2 (includes Forest Roads 4N24, 3N27, 2N74, 2N75 and 2N77 ca. 1925-1926)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>P-19-186921</td>
<td>Santa Clara Divide Road. 32 miles of historic era paved and dirt road (trail by 1907; road by 1934)</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
</tbody>
</table>
reader is referred to Section 4.6.4 for Section 106 application of the National Historic Preservation Act (NHPA) significance criteria. These APMs are summarized in the discussion of potential impacts to cultural resources for Segment 4 and are not repeated here. These same measures will be applied to effected cultural resources in Segment 11. Table 4.6-8 indicates the appropriate measures to be applied given the known historical significance of each cultural resource along this TRTP Segment. Implementation of the cultural resource APMs would reduce impacts to a less than significant level.

**Operations.** Routine maintenance of unpaved access and spur roads is the only operational activity with the potential to affect cultural resources. Sites within or immediately adjacent to the roads could be affected by routine maintenance-related grading. APM CR-2 would avoid such potential impacts by establishing Environmentally Sensitive Areas demarcated with appropriate signage and/or fencing, capping the site using a certified road base, or other protective means. Should the nature of the site require additional means to avoid significant impacts, further APMs would be employed, which include but may not be limited to subsurface testing and/or data recovery within and/or adjacent to the existing road prism.

As a result of these measures, no operational impacts to cultural resources are expected.

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<table>
<thead>
<tr>
<th>Archaeological Site Number</th>
<th>Site Description</th>
<th>CRHR/NRHP Status</th>
<th>Applicant Proposed Measure (APM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-19-186923</td>
<td>Historic era Lukens – Clear Creek Road complexes (includes Mount Lukens Road, Forest Roads 2N76, 2N80, Grizzly Flat Road or Forest Road 2N79.1, 2N77, 2N74, 2N86) Trail by 1908; road by 1942</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-23H</td>
<td>Collapsed historic era structure and debris scatter</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-33H</td>
<td>A concrete water collection basin with piped gravity feed faucet</td>
<td>Not Evaluated</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>CA-LAN-2343/H</td>
<td>Historic era Mt. Wilson Toll Road (ca. 1907) built over a prehistoric trail</td>
<td>Unknown</td>
<td>CR-2 through CR-6</td>
</tr>
<tr>
<td>PL-SCE-Tehachapi-ISO-10</td>
<td>Schist metate fragment</td>
<td>Not Evaluated</td>
<td>CR-5</td>
</tr>
</tbody>
</table>
4.6.5.8.3 **Mitigation Measures.** This segment would not result in any significant impacts to cultural resources, therefore mitigation measures are not required.

4.6.5.8.4 **Impact Significance after Mitigation Measures.** The impacts from Segment 11 would be less than significant.

4.6.6 **References**


Section 4.0
Environmental Impact Analysis and Mitigation Measures

Tehachapi Renewable Transmission Project


City of South El Monte. 1995. *City of South El Monte Municipal Code*. City of South El Monte City Council, South El Monte, California.


Los Angeles County. 1993. *County of Los Angeles General Plan*. County of Los Angeles Department of Regional Planning. Los Angeles, California.

1986. *Antelope Valley Regional Plan*. County of Los Angeles Department of Regional Planning. Los Angeles, California.


San Bernardino County. 2007a. *County of San Bernardino 2007 General Plan*. County of San Bernardino Land Use Services Division. San Bernardino, California.


