

4.5 Cultural Resources

This section presents the environmental setting and impact assessment for cultural and paleontological resources. Cultural resources are defined as prehistoric and historic sites, structures, and districts, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. For analysis purposes, cultural resources may be categorized into three groups: archaeological resources, historic resources, and contemporary Native American resources. Paleontology concerns the fossil remains of plants and animals.

Background

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric-era (before the introduction of written records for a particular area) or historic-era (after the introduction of records). The majority of such places in California are associated with either Native American or Euro-American occupation of the area. The most frequently encountered prehistoric or historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites with rock art. Historic-era archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources are standing structures (mostly buildings) that may have historic or aesthetic significance that are generally 50 years of age or older (i.e., anything built in the year 1959 or before). In California, historic resources considered for protection tend to focus on architectural sites dating from the Spanish Period (1529-1822) through the early years of the Depression (1929-1930), and military resources such as World War II bases. Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values.

Paleontology is a branch of geology that studies the life forms of the past left preserved in stone that occur in certain geological formations. Fossils, specifically prehistoric life forms, can answer questions about evolution, climate change, and extinction of species. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

4.5.1 Setting

Environmental Setting

A report authored by Eckhardt and Jordan (2007a), serves as the primary source for the following environmental setting. The study area crosses multiple Coachella Valley desert communities within Riverside County, namely Palm Springs, Cathedral City, Rancho Mirage, Thousand Palms, Palm Desert, and Indian Wells. These communities are within the northern extent of the Salton Trough Province, also known as the Colorado Desert Province. The Salton Trough is a low-lying barren desert basin with alluvial fans, “isolated low hills, and the extensive valley wash and sand dune areas” of the Whitewater River drainage (WESCO, 1987). The Coachella Valley is comprised of recent sediments received from the surrounding mountain features, namely the San Jacinto and Santa Rosa Mountains. The recent Quaternary alluvium consists of unconsolidated stream, river channel, and alluvial fan deposits including local Aeolian sand, as well as Quaternary lake deposits of clay, silt, sand, and beach gravel from extinct Lake Cahuilla (CDMG, 1986). Geological composition of elevated features within the valley, including Garnet Hill and Indio Hills, are predominantly Pleistocene nonmarine deposits with some Pliocene-Pleistocene nonmarine sedimentary deposits of gray to brown conglomerate, arkosic sandstone, siltstone, and red claystone (CDMG, 1986). The existence of multiple fault zones, including the Banning and Mission Creek branches of the San Andreas, contribute to extensive folding and dissection of geological deposits and features.

The natural environment for the study area is within the northwestern portion of the Colorado Desert Bioregion, a region that extends from the Mexican border north to San Bernardino County at the southern edge of Joshua Tree National Park, east to the Colorado River and west into Riverside and San Diego counties (RAC, 1998). Vegetation communities within the Colorado Desert Bioregion include conifer, woodland, shrub, grassland, desert, urban, agriculture, barren, and water (RAC, 1998). The study area is within desert and developing urban areas between Desert Hot Springs, Palm Springs, and Palm Desert. In undeveloped areas, creosote bush scrub is the most prolific vegetation community (Sawyer and Keller-Wolf, 1995). Stands of Blue Palo Verde-Ironwood-Smoke Tree and Mesquite variety are also present, more commonly within desert washes (Sawyer and Keller-Wolf, 1995); Colorado Desert cactus scrub is typically found in the same environment as Creosote Bush Scrub. Other bioregions potentially present are the Colorado Desert chaparral and saltbrush scrub.

Cultural Setting

Prehistoric

Prehistoric occupation of the Colorado Desert can be divided into three broad periods: Paleo-Indian (11,000 to 6000 B.C.), Archaic (6000 B.C. to A.D. 200) and Late Prehistoric (A.D. 200 to European Contact).

Paleo-Indian (circa [c.] 11,000-6,000 B.C.)

While human occupation of California is known to date back to at least 11,000 B.C., the Paleo-Indian period is sparsely represented in the Colorado Desert area (Schaefer and Laylander, 2007). In terms of material culture, this period is typified by stone tools such as Lake Mojave and Silver Lake projectile points, bifaces, steep-edged unifaces, crescents, and some ground stone implements (Sutton et al., 2007). Paleo-Indian period groups were organized in relatively small, mobile groups and practiced a forager-like subsistence strategy (Schaefer et al., 2009a). Some trade with coastal groups was practiced, as evidenced by the presence of shell beads.

Archaic Period (c. 6,000 to A.D. 200)

Archaeological deposits dating from the Archaic Period suggest that Archaic settlement patterns consisted of seasonal occupation by small, semi-sedentary groups that were dependent upon a combination of big and small-game hunting and collection strategies, which could include the exploitation of stream or water resources. Typically, sites of this period are found along lakeshores, such as ancient Lake Cahuilla, and streams or springs, some of which are now dry (Warren, 1984). Material culture representative of this period in California prehistory includes roughly formed projectile points, “heavy-keeled” scrapers, choppers, and a greater prevalence of flat millingstones and manos, indicating a more intensive use and processing of plant resources. Around 3000 B.C., environmental conditions became much drier and hotter, and few sites have been found in the region that date to the period between 3000 and 2000 B.C., suggesting that the California deserts may have been largely abandoned during this period of unfavorable climate (Sutton et al., 2007; Schaefer et al., 2009a).

Many archaeological sites dating to the later Archaic period are small and surficial, probably of a temporary nature. It is during this time that there is more archaeological evidence suggestive of inter-tribal trade, particularly between the desert and the coast (Warren, 1984). The artifact assemblage associated with this period includes an increase in the prevalence of millingstones and manos, and it is believed that it was during this period that the pestle and mortar were introduced. These technological developments may point to the increased consumption of seeds and mesquite. Other artifacts associated with the late Archaic Period include Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched projectile points.

Late Prehistoric Period (c. A.D. 200 to European Contact)

The archaeological record of the Late Prehistoric Period attests to established trade routes between desert and coastal populations by way of shell beads and steatite, as well as an introduction of Anasazi influence from the eastern Great Plains as evidenced by the appearance of turquoise and pottery. Material culture related to the earlier part of this period includes obsidian artifacts, Rose Spring and Eastgate projectile points, millingstones, manos, mortars and pestles, slate pendants, and incised stones. The advent of the bow and arrow around A.D. 800 represents a major innovation during the Late Prehistoric Period. Around the same time, floodplain agriculture began to be practiced in some areas.

It is believed that the extensive networks of established trade routes encouraged or were the motivating factors for the development of an “increasingly complex socioeconomic and sociopolitical organization” within Protohistoric peoples in the Southern California area (Warren, 1984). Desert Side-notched and Cottonwood projectile points, brownware and buffware ceramics, steatite shaft straighteners, painted millstones, and to a lesser degree, coastal shell beads, are all common artifacts from the later part of the Late Prehistoric. Between A.D. 1000 and 1700, settlement was focused less on the floodplains of the Colorado River and the populations became more mobile, travelling between the Colorado River and Lake Cahuilla (Schaefer et al., 2009a). With the final recession of Lake Cahuilla around 1700, desert populations became reliant again upon the floodplains of the Colorado River, New River, and Alamo River.

Ethnohistory

The Cahuilla were a Takic-speaking people consisting of hunters and gatherers who are generally divided into three groups based on their geographic setting: the Pass Cahuilla of the Beaumont/Banning area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and the Desert Cahuilla from the Coachella Valley, as far south as the Salton Sea (Bean, 1978).

The Cahuilla lived in family groups, or clans that were in turn grouped within two main divisions. People from clans in one division had to marry into clans from the other division. Interaction between clans was limited to trade, intermarriage, and performing ceremonies. Individual clans had villages, or central places, and territories they considered theirs for purposes of hunting game, gathering food, and other necessary resources.

Varying clan groups of the Desert Cahuilla had many villages throughout the Coachella Valley. Planted crops, as well as hunting and gathering, was identified as the main way of life for the Cahuilla. Prior to European contact, population estimates for the Cahuillas range from 3,600 to as high as 10,000 persons. Due to European diseases, such as smallpox, the Cahuilla population was decimated during the 19th Century (Bean, 1978).

Historic Period

The first substantial Spanish exploration began with the *entradas* of Father Jacobo Sedelmayr in 1744, when he traversed the area near what is now Blythe, controlled at that time by the Halchidoma. Francisco Garces and his party crossed portions of the area in 1771, and again in 1776. Spanish Army Captain Juan Bautista de Anza passed through Coyote Canyon and the Santa Rosa Mountains in the San Francisco expeditions of 1774-1776 (Eckhardt, 2006). Unlike the coastal regions to the west, the desert area was rarely traversed until after Mexican independence in 1821, nor were Spanish- or Mexican-period ranchos or large-scale land grants established.

The Mexican-American War (1846-1848) led to the occupation of Alta California by the United States and the area witnessed a gradual increase in travel and commerce. Some small-scale mining took place within the deserts between 1860 and 1890. Tungsten, gold, and silver were mined from the soils in the Old Woman Mountains and the Chuckwallas; however, Salt and

gypsum mines, coupled with iron deposits in the Eagle Mountains after World War I, have been the most successful and enduring mining activities in the desert (Eckhardt and Jordan, 2007a).

By 1879, the Southern Pacific Railroad extended from Los Angeles to Indio, and in the 1880s the Atlantic and Pacific Railroad (now the Santa Fe Railway) was constructed across the desert. In the early 20th Century, the advent of the automobile allowed for the expansion of settlement and land use beyond the limited reach of the rail systems. The construction of the Metropolitan Water District (MWD) aqueduct, between 1934 and 1941, fueled the local economy in the midst of the Great Depression, and the MWD established company towns at several of their pumping plants. The construction of Boulder Dam and its associated hydroelectric facilities in the 1930s set the stage for the first of many trans-desert transmission lines (Eckhardt and Jordan, 2007a).

Although existing from only 1942 to 1944, the development and use of General George Patton's Desert Training Center (DTC) had a significant effect on both the economy and on the desert landscape. The DTC served as the training grounds for soldiers bound for the deserts of Africa. The DTC spread over many square miles and included not only the semi-permanent operations facilities, but also outlying tank training grounds, infantry camps, and outposts (Eckhardt and Jordan, 2007a).

Cultural Resources

A cultural resource study was conducted to identify and evaluate cultural resources within the study area, including the area of potential effect (APE), from June 2006, to October 2007 (Eckhart and Jordan, 2007a; 2007b; and 2007c). Additional work was conducted in June and July 2009 for Alternatives 6 and 7 (Schaefer et al., 2009a; 2009b). The cultural resources assessment included a records search, archival research, pedestrian surveys, and evaluations of the built environment for the Proposed Project and alternative alignments.

Area of Potential Effect (APE)

SCE defined the APE as all possible alignments (proposed and alternative) for the two proposed 115 kV transmission lines, the proposed Devers-Coachella Valley 220 kV Loop-In, the 115 kV subtransmission line reconfigurations, and proposed modifications to the ten substations.

Records Search

Project-specific records searches of the California Historical Resources Information System (CHRIS) were performed at the Eastern Information Center (EIC) in Riverside on April 26, 2006, June 14, 2006, May 19, 2007, and June 24, 2009. These records searches included an examination of previous survey coverage and reports, historic maps, and known cultural resources within a 0.5-mile radius of the APE. Other sources that were reviewed included the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historic Places (California Register), the National Register of Historic Places (National Register), the California State Historic Resources Inventory (HRI), and archived topographic maps dating 1904, 1940, 1941, 1942, and 1957.

Native American Contact

Contact was made with the Native American Heritage Commission (NAHC) in June 2006, May 2007, and October 2007. The NAHC response identified one significant resource in the study area, *Hoon wit ten ca va* (Garnet Hill), which is discussed below. In June 2009, after Alternatives 6 and 7 were added, the NAHC was again contacted and responded that there were several Native American resources within 0.5-mile of the Proposed Project and alternative alignments and sites, and that the area was “quite sensitive.”

The NAHC also provided a list of Native American contacts that may have knowledge of additional resources in the study area. Potential interested parties recommended by the NAHC were contacted via letter in October 2006. Responses were received from the Morongo and Agua Caliente tribes. In July 2008, follow-up phone calls were made on behalf of the CPUC to all Native American contacts to ensure potentially affected groups were aware that the project was proceeding. The Agua Caliente Band of Cahuilla Indians acknowledged the presence of a traditional cultural property at Garnet Hill and expressed concern for potential impacts to cultural resources. SCE invited Agua Caliente tribal members to a tour of site CA-RIV-785. Ms. Patty Tuck attended the site visit on behalf of the tribe.

Field Survey

A field survey was conducted for the APE for the Proposed Project alignments and the Alternative 2, 3, and 5 alignments in June and July 2006, and May 2007 (Eckhart and Jordan, 2007a; 2007b; and 2007c). An additional field visit was made to site CA-RIV-785 in April 2008, by SCE archaeologist Philippe Lapin and Dr. Mitch Marken, Director of Cultural Resources for Environmental Science Associates on behalf of the CPUC.

In 2009, additional field surveys were performed for the Alternative 6 and 7 alignments and for the 0.8-mile portion of the proposed Farrell-Garnet alignment that would require new 115 kV ROW (Schaefer et al., 2009a). The field surveys consisted of intensive archaeological surveys performed in transects of 40 to 50 feet for all areas located within open terrain along the proposed and alternative alignments crossing undeveloped land, and for all areas where previously recorded cultural resource sites have been encountered along the proposed and alternative alignments.

Light reconnaissance was performed for portions of the alternative alignments within built urban environments. This consisted of vehicle-based survey and observation as well as pedestrian survey in areas where native soil was present.

A site visit was made by Dr. Mitch Marken in January 2010. Dr. Marken relocated and documented historic resource site 33-8408 (Varner Road) where it intersects the proposed Mirage-Santa Rosa and Alternative 5 alignments.

Several areas were not surveyed due to access restrictions, including: a 0.25-mile segment of the proposed Farrell-Garnet 115 kV subtransmission line alignment just south of Interstate 10 (I-10); and the Alternative 6 and 7 alignments where they cross the Agua Caliente Indian Reservation. In

the event that an alternative alignment is selected, any unsurveyed portions of the selected alignment should be surveyed by a qualified archaeologist prior to project implementation.

Site recording procedures conformed to the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation*, as amended and annotated (U.S. Department of the Interior, 2008). Known sites were relocated and recorded. All cultural resources encountered in the field were individually recorded using a global positioning system and assigned temporary field numbers. A Department of Parks and Recreation (DPR) primary form was completed for each resource.

Findings

The cultural resources records search revealed the presence of the following five previously recorded cultural resources within the APE for the proposed and alternative alignments.

Hoon wit ten ca va (Garnet Hill). This resource is located within the APE for the proposed Farrell-Garnet 115 kV subtransmission line alignment and within the APE for the Alternative 2 and Alternative 3 alignments. Garnet Hill, also known by its traditional name *Hoon wit ten ca va*, is a place of cultural significance to the Cahuilla Indian Tribe. According to Cahuilla cultural tradition, the hero *Ca wis Ke on ca* named the hill in his delineation of the territory of the *Kauisiktum* lineage. The traditional territory of the *Kauisiktum* encompasses the City of Palm Springs and much of the surrounding area. Although the site is recorded in the Sacred Lands File, maintained by the California NAHC, it has not been formally recorded or entered into the CHRIS. Because Garnet Hill plays an important role in the history of the Cahuilla, the hill and surrounding landscape have the potential to be significant as a Traditional Cultural Property (TCP). Traditional cultural significance is derived from the role a property plays in a community's historically rooted beliefs, customs, and practices. Properties may be eligible for the NRHP under Criterion A if they are associated with events, or a series of events, significant to the cultural traditions of a community. *Hoon wit ten ca va* (Garnet Hill) appears eligible for listing in the NRHP and CRHR under Criterion A.

CA-RIV-785. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. CA-RIV-785 is a prehistoric temporary encampment, originally recorded in 1974 as a surface scatter of artifacts. Artifacts initially observed at the site included lithics, manos, ceramics, fire-cracked rock, hammerstones, and a cottonwood projectile point. Also noted were burnt animal bone and cremated remains. Phase III archaeological testing in 1992 confirmed that the site consisted largely of surface deposits; however, three new subsurface features were recognized—a hearth, a cremation burial, and a possible house floor (Everson et al, 1993). The cremation burial contained the remains of one human, along with 182 shell beads. The site was interpreted to be a moderate-sized encampment, occupied intermittently over time, with habitation spanning from 150 to 1,000 years before the present. The excavators concluded that the large-scale Phase III excavation efforts had exhausted the information potential of the site (Everson et al., 1993).

The 2006 archaeological survey for the project (Eckhardt and Jordan, 2007a) located the site and confirmed the presence of existing features, confirmed that it matches the general site description, and revealed that existing pole structures and an access road bisect the

resource. Given the presence of possible additional burials and the unknown research potential of the site, despite the extensive previous excavation effort, the site is treated as eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-8408 (Varner Road). This resource is located within the APE for the proposed reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line, the proposed Mirage-Santa Rosa 115 kV subtransmission line alignments, and Alternative 5, 6 and 7 alignments. It was relocated during the 2009 archaeological survey. Varner Road extends east from Garnet Hill toward Seven Palms Valley. The road, a two-lane asphalt road constructed around 1915, was once known as US-99/US-60, and was part of a major transcontinental roadway.

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a “distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system” (Schaefer et al., 2009aa:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity. This previously evaluated segment included the portion of the APE encompassing the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line.

No formal evaluation of the segments of Varner Road that intersect the proposed Mirage-Santa Rosa 115kV subtransmission line alignment and the Alternative 5 alignment has been conducted; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this CEQA study, it is assumed that all of these segments of Varner Road that would be impacted by implementation of the Proposed Project and its alternatives are similar to the previously evaluated segment and therefore are eligible for listing on the NRHP and CRHR. While the pavement on these unevaluated segments is not original, it is assumed that the route of Varner Road where it traverses the project area is original in intact. Therefore, Varner Road where it exists within the APE is considered a historical resource for the purposes of CEQA.

33-8411 (Vista-Hayfield/Devers-Hinds 220 kV transmission line). This resource is located within the APE for the Alternatives 6 and 7 alignments and was relocated during the 2009 archaeological survey. The transmission line was originally constructed in 1950 and runs through the northern Coachella Valley from the Hayfield pumping station on the Colorado river with Vista Substation in San Bernardino. Site 33-8411 does not appear eligible for listing the NHRP or CRHR.

33-9498/CA-RIV-6381H (Southern Pacific Railroad/Union Pacific Railroad line). This resource is within the APE for the proposed and alternative subtransmission line alignments and was relocated during the 2009 archaeological survey. The original railroad line was constructed in 1876. CA-RIV-6381H appears eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history.

The following five newly recorded resources were identified during the cultural resource surveys for the Proposed Project and alternatives.

33-15429. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This prehistoric site consists of a lithic scatter, a single brown ware ceramic sherd, and a near complete brown ware ceramic vessel. In addition to the ceramics, two milling tools and a small number of fire-affected cobbles were also observed. The resource is bisected by the existing 115 kV subtransmission line. It is located approximately 100 feet north of the previously recorded resource CA-RIV-785, with which it is likely associated. The site may be related to site CA-RIV-785 and may be eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-15430. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This resource consists of a small discrete scatter of pottery sherds most likely associated with a single pot drop. Site 33-15430 is located 330 feet northwest of Site 33-15429 and more than 660 feet northwest of CA-RIV-785. Again, close proximity to the other recorded sites indicates a strong association with the broader resource area. During a field visit in April 2008, no evidence of this resource could be detected on the surface. However, the site may be related to site CA-RIV-785 and is treated as eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-15431. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This resource is a single, isolated granitic milling handstone identified during the survey. The item was located along the margins of an access road. No other artifacts were observed in association with the handstone. As an isolated artifact, its research potential has been exhausted in the process of recording the artifact on a DPR form, and the artifact does not appear to possess the potential to provide information important to the study of prehistory. Isolate 33-15431 is not eligible for listing on the NRHP or CRHR.

RIV-9232. This resource is located within the APE for the Alternative 6 and 7 alignments. This resource is an historic period trash scatter. The site does not have the potential to yield information important to the study of history and thus does not appear eligible for the NRHP or CRHR.

RIV-9233. This resource is located within the APE for the Alternative 6 and 7 alignments. This resource consists of the remains of a cobble and concrete structure and an associated historic-period trash scatter. The site does not have the potential to yield information important to the study of history, and thus does not appear eligible for the NRHP or CRHR.

Paleontological Resources

Research was conducted to determine whether sensitive paleontological resources could be affected by the Proposed Project or alternatives. A review of published and unpublished documents and maps, supplemented by an archival search conducted at the Natural History Museum of Los Angeles County, was conducted by E. Bruce Lander, PhD, of Paleo-Environmental Associates (Lander, 2007).

The results of the paleontological literature and map review indicated that sections of the survey area had been previously studied and that paleontological resources sites have been recorded in the area (Lander, 2007). The following eight geological formations occur within the study area.

Imperial Formation

The Imperial Formation is exposed at Garnet Hill, at the southeast corner of the intersection of Indian Avenue and Garnet Avenue. Within this area, the formation has yielded fossilized remains representing a taxonomic diversity of late Miocene marine invertebrate taxa, including clams, snails, barnacles, sea urchins, and sand dollars (Dibblee, 2004; Powell, 1995; and Proctor, 1968). The formation has yielded the fossilized bones of whales on the divide between Whitewater Canyon and the northwestern end of the Coachella Valley (Thomas and Barnes, 1993). In the Coyote Mountains of Imperial County, the Imperial Formation (also known as the Imperial Group) has yielded the fossilized bones of a walrus, whales, sea cows, and a camel. Based on the high occurrence of fossils, the Imperial Formation is classified as being of high paleontologic importance.

A review of the Paleontological Sensitivity Map of Riverside County also indicates that the Imperial Formation is considered to have a high potential to contain significant non-renewable paleontological resources.

Ocotillo Conglomerate

The Ocotillo Conglomerate (or Ocotillo Formation) underlies the northeastern margin of the study area. No fossil site is recorded within the study area and vicinity where it is underlain by the Ocotillo Conglomerate; however, in the Coyote Mountains of Imperial County, this formation has produced early Pliocene to middle or late Pleistocene fossils. However, the formation as it exists in the study area is probably too coarse-grained to contain any fossil remains (Lander, 2007). The Ocotillo Conglomerate is classified as being of low paleontologic importance.

Cabazon Fanglomerate

No fossil site is recorded within the study area and vicinity where it is underlain by the Cabazon Fanglomerate, which underlies the northwestern margin of the Farrell-Garnet study area, including Garnet Hill. Moreover, this formation, which consists of cobble to boulder conglomerate (Dibblee, 2004), is probably too coarse-grained to contain any fossil remains. The Cabazon Fanglomerate is classified as being of low paleontologic importance (Lander, 2007).

Older Alluvium

Older alluvium has yielded the fossilized bones and teeth of Pleistocene land mammals at other locations in California; however, no fossil site has been recorded from this rock unit in or near the study area. Older alluvium is classified as being of low paleontologic importance (Lander, 2007).

Alluvial Fan Deposits

Alluvial fan deposits occur at the mouths of canyons at the foot of the San Jacinto Mountains, in the southwestern portion of the study area. No fossils have been recorded from these deposits. Alluvial fan deposits are classified as being of low paleontologic importance (Lander, 2007).

Stream Channel Deposits

Stream channel deposits underlie the floors of the major drainages that cross the floor of the Coachella Valley. No fossils have been recorded from these deposits. Stream channel deposits are classified as being of low paleontologic importance (Lander, 2007).

Younger Alluvium

Younger alluvium underlies the floor of the Coachella Valley between the major drainages. No fossil sites are recorded from this unit in or near the study area. Near the surface, this unit is probably too young and coarse grained to contain fossil remains. However, in other regions and at shallow depths, younger alluvium has produced early Holocene Fossils. Near the surface, younger alluvium is classified as being of low paleontologic importance; however, at depth it is classified as being of high paleontologic importance (Lander, 2007).

Dune Sand

Dune sand covers the floor of the Coachella Valley. No fossils have been recorded from this unit in the study area and it is probably too young to contain any fossils. Therefore, dune sand is classified as being of low paleontologic importance (Lander, 2007).

Cultural Resources Regulatory Framework

Numerous laws and regulations require federal, State, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Environmental Quality Act (CEQA); and the California Register of Historical Resources, Public Resources Code (PRC) 5024, are the primary federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance.

Federal

While most of the Proposed Project and alternative alignments would be located on private land, a short segment (approximately 750 feet by 30 feet) of the proposed Farrell-Garnet 115 kV subtransmission line and three short segments of the Alternative 6 and 7 subtransmission lines would extend across federal land managed by the Bureau of Land Management (BLM) Palm Springs Field Office. These short segments that cross BLM land would be subject to Section 106 of the NHPA.

In addition, permits from federal agencies such as the Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service, and the Federal Aviation Administration may be required. In this case, construction of the proposed Farrell-Garnet transmission line or the Alternative 6 and 7 subtransmission lines would have to comply with Section 106 of the NHPA.

Section 106 of the NHPA

Archaeological resources are protected through the NHPA of 1966, as amended (16 USC 470f), and its implementing regulation, Protection of Historic Properties (36 CFR Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an “undertaking” (e.g., issuing a federal permit), Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places. As indicated in Section 101(d)(6)(A) of the NHPA, properties of traditional religious and cultural importance to a tribe are eligible for inclusion in the National Register. Under the NHPA, a find is considered significant if it meets the National Register listing criteria at 36 CFR 60.4.

As mentioned above, construction of the Proposed Project and alternatives would require federal permits, including a permit from the USACE under Section 404 of the Clean Water Act, and as such must be in compliance with Section 106 of the National Historic Preservation Act.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (CFR 36 Section 60.2). The NRHP recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

- A. Are associated with events that have made a significant contribution to the broad patterns of our history;
- B. Are associated with the lives of persons significant in our past;
- C. 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 and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for NRHP listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance” (U.S. Department of the Interior, 1995). The NRHP recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

State

The State implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State’s jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” (California Public Resources Code [PRC] § 5024.1[a]). The criteria for eligibility for the CRHR are based upon NRHP criteria (California PRC § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register of Historical Resources, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following criteria:

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

A resource eligible for the CRHR must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as an historical resource and to convey the reason for its significance. It is possible that an historic resource may not retain sufficient integrity to meet the criteria for listing in the NRHP, but it may still be eligible for listing in the CRHR.

Additionally, the CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the CRHR include:

- Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register).
- Individual historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources. CEQA is codified at Public Resources Code sec 21000 et seq. As defined in Section 21083.2 of CEQA a “unique” archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, the CEQA Guidelines recognize that certain historical resources may also have significance. The Guidelines recognize that an historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) 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 by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is an historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for an historical resource contained in the CEQA Guidelines, then the site is to be treated in accordance with the provisions of CEQA Section 21083, which is a unique archaeological resource. The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]).

Local

Riverside County

Specific policies within the current General Plan for the County of Riverside that apply to cultural resources include (County of Riverside, 2003):

Policy OS 19.2: Review all proposed development for the possibility of archaeological sensitivity;

Policy OS 19.3: Employ procedures to protect the confidentiality and prevent inappropriate public exposure of sensitive archaeological resources when soliciting the assistance of public and volunteer organizations;

Policy OS 19.4: Require a Native American Statement as part of the environmental review process on development projects with identified cultural resources; and

Policy OS 19.5: Transmit significant development proposals to the History Division of the Riverside County Regional Park and Open-Space District for evaluation in relation to the destruction/preservation of potential historical sites. Prior to approval of any development proposal, feasible mitigation shall be incorporated into the design of the project and its conditions of approval.

City of Palm Springs

The City of Palm Springs General Plan contains the following applicable goal, policies, and actions concerning cultural resources (City of Palm Springs, 2007):

Goal RC10: Support, encourage, and facilitate the preservation of significant archaeological, historic, and cultural resources in the community.

Policy RC10.1: Support the preservation and protection of historically, architecturally, or archaeologically significant sites, places, districts, structures, landforms, objects, native burial sites and other features.

Policy RC10.4: Continue to protect individual historic sites, buildings, and neighborhoods as set forth by the Historic Preservation Ordinance and other related historic ordinances.

Policy RC10.5: Actively encourage and promote the understanding, appreciation, and preservation of the archaeological, historic, and cultural resources.

Policy RC10.6: Maintain active communication and cooperation with the Tribal Historic Preservation Office, the Palm Springs Historic Society and other historic preservation entities.

Action RC10.3: Require site assessment conducted by a qualified specialist whenever information indicates that a site proposed for development may contain paleontological, historic, or archaeological resources.

Action RC10.4: Establish an MOU with the University of California at Riverside to review and provide recommendations for projects potentially affecting archeological, historic, and cultural resources.

City of Palm Desert

The City of Palm Desert General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Palm Desert, 2004).

Goal: Documentation, maintenance, preservation, and enhancement of archaeological and historic sites, artifacts, traditions, and other elements of the City's cultural heritage.

Policy 1: The City shall exercise its responsibility to identify, document, and evaluate archaeological, historical, and cultural resources that may be affected by proposed development projects and other landscape-altering activities.

Program 1.A: Development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, shall be evaluated by a qualified professional and, if necessary, comprehensive Phase I studies and appropriate mitigation measures shall be incorporated into project approvals.

Policy 4: Sensitive archaeological and historic resources shall be protected from vandalism and illegal collection, to the greatest extent possible.

Program 4.B: In the course of reviewing development proposals and cultural surveys that identify sensitive resources, the City shall, where appropriate, encourage in-place preservation or the recovery and preservation of materials for later study and/or display.

City of Rancho Mirage

The City of Rancho Mirage General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Rancho Mirage, 2005):

Goal 1: The preservation, maintenance, continuity, and enhancement of cultural heritage and resources in the City of Rancho Mirage, including historic and prehistoric cultural artifacts and traditions.

Policy 1: The city shall exercise its responsibility to preserve archaeological, historical, and cultural sites.

Policy 2: Development or land use proposals that have the potential to disturb or destroy sensitive cultural resources shall be evaluated by a qualified professional and appropriate mitigations measures shall be incorporated into project approvals, if necessary.

Program 2.A: Encourage in-place preservation or the recover and preservation of materials for later study and display when reviewing development proposals and cultural surveys that identify sensitive resources.

Program 2.C: Include Native American tribes, if requested, in the permit review process for new development applications.

Policy 3: The City shall ensure the protection of sensitive archaeological and historical resources from vandalism and illegal collection

City of Cathedral City

The City of Cathedral City General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Cathedral City, 2002):

Goal: Identification, preservation, and revitalization of significant cultural, historical and archaeological resources that are valuable to the City of Cathedral City's heritage.

Policy 1: The City will ensure that sites in archaeologically and historically sensitive areas are surveyed prior to development.

Program 1.B: City staff shall require, early in the project review process, the preparation of focused cultural resource surveys in areas of known sensitivity.

Program 1.C: The City shall adopt specific standards for the identification, preservation and maintenance of archaeological and historic sites. These standards shall include professional qualifications for persons performing site-specific surveys.

Program 1.E: In the event that archaeological resources are identified during construction, the City shall require that development cease, and a professional archaeologist shall be employed to examine and document the site to determine subsequent actions.

Policy 2: The City shall make every effort to protect sensitive archaeological and historic resources from vandalism and illegal collection.

Program 2.A: Mapping and site-specific information shall be kept confidential, and access shall be given only to those with appropriate professional credentials.

Program 2.B: The preservation of sensitive sites or artifacts in-situ should be considered whenever feasible.

Policy 4: Encourage public participation and appreciation of archaeological and historic resources.

Program 4.A: Continue to coordinate and cooperate with the Agua Caliente Band of Cahuilla Indians in the identification and preservation of sensitive Cahuilla Indian sites and resources, and the continued expansion of the tribal Cultural Museum.

City of Indian Wells

The City of Indian Wells General Plan contains the following applicable goal and policies concerning cultural resources (City of Indian Wells, 1996):

Goal IIIA3: Preservation of significant historical, cultural, and paleontological resources.

Policy IIIA3.1: Review all public and private development projects in areas of high potential for archaeological/paleontological resources and require strict adherence to CEQA guidelines for environmental documentation and mitigation measures

Policy IIIA3.2: Require sites proposed for future development to be evaluated for archaeological and paleontological resources either through a literature search or a survey by a certified archaeologist or paleontologist in accordance with CEQA.

Paleontological Resources Regulatory Context

Federal

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or federally managed lands or involves a federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et. seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands.

State

Paleontological resources are also afforded protection by CEQA. Appendix G (Part V) of the *CEQA Guidelines* provides guidance relative to significant impacts on paleontological resources, stating that a project will normally result in a significant impact on the environment if it will "...disrupt or adversely affect a paleontologic resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Standards

The Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys,

monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice

Local

Riverside County

The Riverside County General Plan identifies the following policies that pertain to paleontological resources (County of Riverside, 2003):

Policy OS 19.8: Whenever existing information indicates that a site proposed for development may contain biological, paleontological, or other scientific resources, a report shall be filed stating the extent and potential significance of the resources that may exist within the proposed development and appropriate measures through which the impacts of development may be mitigated.

Policy OS 19.9: This policy requires that when existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities, with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department documenting any paleontological resources that are found during the course of site grading.

Policy OS 19.10: Transmit significant development applications subject to CEQA to the San Bernardino County Museum for review, comment, and/or preparation of recommended conditions of approval with regard to paleontological resources.

City of Palm Springs

The City of Palm Springs General Plan contains the following applicable action concerning paleontological resources (City of Palm Springs, 2007):

Action RC10.3: Require site assessment conducted by a qualified specialist whenever information indicates that a site proposed for development may contain paleontological, historic, or archaeological resources.

City of Palm Desert

The City of Palm Desert General Plan does not contain any policies on paleontological resources (City of Palm Desert, 2004).

City of Rancho Mirage

The City of Rancho Mirage General Plan does not contain any policies on paleontological resources (City of Rancho Mirage, 2005).

City of Cathedral City

The City of Cathedral City General Plan does not contain any policies on paleontological resources (City of Cathedral City, 2002).

City of Indian Wells

The City of Indian Wells General Plan addresses both paleontological and archaeological resources in the same policies, which are identified above under the discussion of City of Indian Wells cultural resources regulations (City of Indian Wells, 1996).

4.5.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, an impact resulting from the Proposed Project would be considered significant if it would:

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

CEQA provides that a project may cause a significant environmental effect where the project could result in a substantial adverse change in the significance of an historical resource (Public Resources Code, Section 21084.1). CEQA Guidelines Section 15064.5 defines a “substantial adverse change” in the significance of an historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be “materially impaired” (CEQA Guidelines, Section 15064.5[b][1]).

CEQA Guidelines, Section 15064.5(b)(2), defines that the significance of an historic resources 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 the 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 purposes of CEQA.

Historic resources are usually 50 years old or older and must meet at least one of the criteria for listing in the California Register (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]).

Finally, CEQA Section 15126.4(b)(2) states that, “(2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.” This is supported by recent CEQA case law which finds that documentation will not mitigate the loss of an historic resource to a less than significant level, and that demolition of historic resources would have a significant unmitigable impact on the environment.

4.5.3 Applicant Proposed Measures

Cultural Resources

SCE proposes the following Applicant Proposed Measures (APMs) to minimize impacts to cultural resources from the Proposed Project. The impact analysis assumes that the following APMs would be implemented as discussed below.

APM CUL-1. Native American Consultations. Continued consultation and communication with interested Native American community to understand the concerns of Native American members in identifying measures that would prevent direct and indirect impacts. One such measure may include the following: if previously unidentified archaeological resources are unearthed during construction activities, construction will be halted in that area and directed away from the discovery, until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve, or recover the resources.

APM CUL-2. Discovery of Human Remains. If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the county coroner makes the necessary findings as to origin, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The Native American Heritage Commission (NAHC) would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding the treatment of remains.

APM CUL-3. Construction Monitoring. All ground-disturbing activities occurring along the Proposed Mirage-Santa Rosa 115 kV Subtransmission Line Alternative (Route 4)

would be monitored by a qualified archaeologist. The route is highly sensitive for cultural resources.

APM CUL-4.¹ Data Recovery Plan. An evaluation and data recovery plan shall be developed to address impacts to CA-RIV-785, 33-15429, and 33-15430.

APM CUL-5.² Cultural Resources Plan. A cultural resource management plan shall be developed to prevent operational impacts to the cultural resource located between the Mirage Substation and I-10.

APM CUL-6.³ Garnet Hills Native American Cultural Resource. Appropriate measures, if deemed necessary, would be developed in consultation with Native American community members, as recommended by the NAHC, to address potential impacts to the Garnet Hills Native American cultural resource.

Paleontological Resources

SCE has committed to implementing the following prior to and during construction, in association with the development of the Proposed Project, in areas of potential paleontological sensitivity.

APM PA-1. Paleontological Field Assessment. Conduct a paleontological field assessment of the finalized ROWs for the Proposed Project, as needed.

APM PA-2. Paleontological Resources. Prior to construction, a paleontologist would salvage known, exposed paleontological resources. This would consist of collecting standard samples of fossiliferous sediments.

APM PA-3. Paleontological Monitoring. A paleontological monitor would be present during ground-disturbing activities within areas designated as having a high possibility for the presence of paleontological resources. The monitor would be empowered to temporarily halt or redirected construction activities to ensure avoidance of adverse impacts.

APM PA-4. Salvage and Recovery of Paleontological Resources. Upon encountering a large deposit of bone, salvage of all bone in the area would be conducted in accordance with modern paleontological techniques.

APM PA-5. Transfer of Fossils to Museum. All fossils collected would be prepared to a reasonable point of identification. Itemized catalogs of all material collected and identified would be provided to a museum repository along with the specimens. A specimen repository would be arranged, in writing, with a museum prior to initiation of construction excavation.

APM PA-6. Paleontological Reporting. A report documenting the results of the monitoring and salvage activities and the significance of the fossils would be prepared.

¹ APM CUL-4 was identified as CUL-MIT-1 in the PEA.
² APM CUL-5 was identified as CUL-MIT-2 in the PEA.
³ APM CUL-6 was identified as CUL-MIT-3 in the PEA.

4.5.4 Impacts and Mitigation Measures

Analysis Approach

Impacts on cultural resources could result from ground-disturbing activities, including project-related excavation, grading, brush-clearing, trenching, or other sub-surface disturbance that could damage or destroy buried archaeological resources including prehistoric and historic remains or human burials. Construction activities would vary by project component, but would include: removal and installation of wood and steel poles and towers; installation of conductor; construction of new access roads; maintenance of existing access roads, and grading of construction areas.

Potential impact thresholds are discussed below as defined by CEQA. Although the APMs outlined above would reduce those impacts, additional measures are recommended to ensure that cultural resources are protected.

a, b) Cause a substantial adverse change in the significance of an historical or unique archeological resource as defined in §15064.5.

Six potentially significant cultural resources, *Hoon wit ten ca va*, CA-RIV-785, 33-15429, 33-15430, 33-8408 (Varner Road), and CA-RIV-6381H (Southern Pacific/Union Pacific Railroad), have been identified within the project area.

Historic feature CA-RIV-6381H, the Southern Pacific/Union Pacific Railroad, would not be impacted by the Proposed Project. The railroad would be spanned by the proposed Farrell-Garnet 115 kV subtransmission line and the proposed Mirage-Santa Rosa 115 kV subtransmission line, and no ground disturbing activity would occur within the railroad right-of-way. Therefore, there would be no impacts to this resource (No Impact).

Historic resource 33-4808 (Varner Road), Native American cultural resource *Hoon wit ten ca va* and prehistoric archaeological sites CA-RIV-785, 33-15429, and 33-15430, could be impacted by the Proposed Project. Impacts are described in detail below.

Impact 4.5-1: Project construction could adversely affect historic site 33-8408, Varner Road. *Less than significant (Class III)*

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a “distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system” (Schaefer et al., 2009a:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity. This evaluated segment included the portion of the APE encompassing the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line.

Construction activity associated with the proposed 155 kV reconfiguration at Date Palm Drive and Varner Road would occur in the vicinity of a recorded historic segment of Varner Road near its intersection with Date Palm Drive. Ground disturbing activity in the vicinity of Date Palm Drive and Varner Road would consist of removing six wood poles and installing one new TSP and four new wood poles.

There is currently a wooden pole line along Varner Road, as well as several more modern subtransmission lines that cross above the intersection of Varner Road and Date Palm Drive. No ground-disturbing activity within the roadway itself or alteration to the resource's setting would take place. The removal and installation of the wood poles and TSP would have no impact on the integrity of the roadway. Given that Varner Road is considered eligible for the NRHP and CRHR under Criterion A/1 due to its association with early automobile travel across the California deserts, and that neither the road's pavement nor its original route would be impacted by the proposed project, the addition of five new poles at this location would not affect the resource's ability to convey its significance under Criterion A/1 as a distinctive example of early pre-Interstate highway system automobile travel through the Coachella Valley. Impacts to Varner Road at this location would be less than significant.

The proposed Mirage-Santa Rosa 115 kV subtransmission line would also cross Varner Road just north of I-10, in the Thousand Palms area. At this location, Varner Road exists as a frontage road just north of I-10. This segment of Varner Road has not been evaluated for its eligibility for the NRHP or CRHR; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this impacts analysis, this segment of Varner Road where it intersects the proposed Mirage-Santa Rosa 115kV subtransmission line alignment is assumed to be similar to the previously evaluated segment and to retain a similar level of integrity, and therefore to be eligible for listing on the NRHP and CRHR. However, the only proposed work taking place in the immediate vicinity of this segment of Varner Road would be the installation of three additional arms and insulators on an existing double-circuit TSP. No ground-disturbing activity or alteration to the resource's setting would take place, and no impact to Varner Road would occur as a result of this work.

Mitigation: None required.

Impact 4.5-2: Project construction could adversely affect the *Hoon wit ten ca va* (Garnet Hill), a Native American cultural resource. *Less than significant with mitigation* (Class II)

Hoon wit ten ca va (Garnet Hill) has been identified as a Native American cultural resource. Its known association with the history of the Cahuilla culture may qualify the hill and landscape as a Traditional Cultural Property (TCP). At present, the area can be considered an Area of Traditional Importance (ATI) pending formal evaluation. Traditional cultural significance is derived from the role a property plays in a community's historically rooted beliefs, customs, and practices. Properties may also have historic significance under Criterion A if they are associated with events, or a series of events, significant to the cultural traditions of a community. Since *Hoon wit*

ten ca va (Garnet Hill) appears eligible for listing in the NRHP and CRHR under Criterion A, it will be treated as a significant resource. Consultation with the Cahuilla Indian Tribe has been initiated and would be on going throughout the construction of the proposed Farrell-Garnet 115 kV subtransmission line.

It has not been determined how construction of the proposed Farrell-Garnet 115 kV subtransmission line would affect this resource. While it is unlikely that the site would be directly impacted by the proposed line, the resource might be *indirectly* impacted. APM CUL-1 and CUL-6 encourages communication with local Native American communities concerning this resource. However, Mitigation Measure 4.5-2 would be required to ensure that impacts to the resource would be adequately mitigated.

Mitigation Measure 4.5-2: Additional consultation shall be conducted with Native American community members regarding *Hoon wit ten ca va* (Garnet Hill). An agreement document that addresses potential impacts to this resource and sets forth an agreement concerning how to minimize impacts shall be created and signed by the tribes and SCE, and shall be submitted to the CPUC as documentation that the consultation has occurred.

Significance after Mitigation: Less than Significant.

Impact 4.5-3: Project construction could adversely affect cultural resources CA-RIV-785, 33-15429, and 33-15430. *Less than Significant with Mitigation (Class II)*

Implementation of the proposed Mirage-Santa Rosa 115 kV subtransmission line could potentially impact site CA-RIV-785. This site has yielded numerous artifacts, a house floor, and a cremation burial. The proposed subtransmission line alignment directly bisects the site. Project-related construction activities associated with the installation of this subtransmission line in the vicinity of CA-RIV-785 would include:

- Installation of new light weight steel (LWS) poles 65 feet west of the existing Mirage-Tamarisk 115 kV line. The spans between poles would be approximately 185 feet.
- Smoothing and resurfacing of Vista Del Oro (which runs through site CA-RIV-785).

No new access or spur roads would be constructed, and construction equipment would be staged at the Mirage Substation. It appears that the location of the proposed Mirage-Santa Rosa 115 kV subtransmission line poles would be set such that the line would avoid impacts to CA-RIV-785 as presently recorded (Lapin, 2008). However, smoothing and resurfacing of Vista del Oro road would have the potential to impact the site.

Phase III data recovery excavations (Everson et al, 1993) conducted in 1992, included the area of potential impact for potential road grading crossing the site. However, despite the fact that much archeological work has been completed at this site, it should be treated as significant given the potential for presence of additional burials and the research potential of the site.

APM CUL-3 would require archaeological monitoring along the proposed Mirage-Santa Rosa 115 kV subtransmission line during construction activities. Because of the sensitivity of this area for Native American resources, a Native American monitor should also monitor ground-disturbing activities (Mitigation Measure 4.5-3c). Implementation of APM CUL-3 and Mitigation Measure 4.5-3a, 4.5-3b, and 4.5-3c would reduce the potential impacts to less than significant.

Construction of the proposed Mirage-Santa Rosa 115 kV subtransmission line could also impact sites 33-15429 and 33-15430. These sites may be related to site CA-RIV-785 and may be eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory. Neither site, however, appears to be within the direct APE for the proposed alignment. These sites should be avoided to ensure that any adverse effects are minimized. Implementation of APM CUL-3 (Construction Monitoring) as well as Mitigation Measures 4.5-3a, 4.5-3b, and 4.5-3c would reduce potential impacts to less than significant.

Mitigation Measure 4.5-3a: Avoid and protect archaeological resources. SCE shall narrow the construction zone to avoid potentially significant archaeological resources CA-RIV-785, 33-15429, and 33-15430 if feasible. The resources shall be designated as Environmentally Sensitive Areas (ESAs) to ensure avoidance. Protective fencing or other markers shall be erected around ESAs prior to any ground disturbing activities; however, such ESAs shall not be identified specifically as cultural resources, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts.

Mitigation Measure 4.5-3b: Preparation of treatment plan if avoidance is not feasible. If avoidance of sites CA-RIV-785, 33-15429, and 33-15430 is not feasible, prior to issuing any grading or excavation permits and prior to any project-related ground disturbing activities, a detailed Historic Properties Treatment Plan (HPTP) shall be prepared by SCE and implemented by a qualified archaeologist. The HPTP shall include a research design and a scope of work for data recovery, in conformance with APM CUL-4, or additional treatment of potentially significant archaeological sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection in the area of direct impact, and site documentation, with the aim to target the recovery of important scientific data contained in the portion(s) of the archaeological resource(s) to be impacted by the project. As specified in APM CUL-5, a long-term management plan shall also be developed by SCE for those resources that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance.

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories, libraries, and interested professionals.

Mitigation Measure 4.5-3c: Due to the sensitivity of the project area for Native American resources, in addition to archaeological monitoring as specified in APM CUL-3, at least one Native American monitor shall also monitor all ground-disturbing activities along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Selection of monitors by SCE shall be made by agreement of the Native American groups identified by the Native American Heritage Commission as having affiliation with the project area, with documentation of such agreement submitted to the CPUC.

Significance after Mitigation: Less than Significant.

Impact 4.5-4: Project construction could adversely affect currently unknown cultural resources. *Less than significant with mitigation (Class II)*

Construction activities could encounter currently unknown cultural resources, either prehistoric or historic. Pursuant to CEQA Guidelines Section 15064.5 or CEQA Section 21083.2(g), this could cause substantial adverse changes to the significance of the resource.

APM CUL-3 would require archaeological monitoring along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Because of the sensitivity of this area for Native American resources, a Native American monitor would also monitor ground-disturbing activities, pursuant to Mitigation Measure 4.5-3c. Mitigation Measures 4.5-4a and 4.5-4b are also required to ensure that the APMs are effectively implemented. Implementation of Mitigation Measures 4.5-3c, 4.5-4a, and 4.5-4b would reduce this potentially significant impact to a less-than-significant level.

A 0.25-mile segment of the proposed Farrell-Garnet 115 kV subtransmission line alignment just south of I-10 was not surveyed due to access restrictions. However, per the requirements of Mitigation Measure 4.5-4c (see below), the unsurveyed portion of the project area would be surveyed prior to commencement of construction activities by a qualified archaeologist to evaluate and record any cultural resources that may be present in the area.

Mitigation Measure 4.5-4a: Any accidental discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the archaeologist, in consultation with the CPUC and appropriate Native American group(s), shall develop a treatment plan. All work adjacent to the unanticipated discovery (estimated at 25 feet) shall cease until the qualified archaeologist has evaluated the discovery, and/or the treatment plan has been implemented.

Mitigation Measure 4.5-4b: An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained by SCE to oversee and implement the applicant proposed measures and mitigation measures stipulated in this Environmental Impact Report.

Mitigation Measure 4.5-4c: Prior to any ground disturbing activity, those portions of the project area not surveyed because of low visibility or lack of access shall be surveyed by a qualified archaeologist. After additional archaeological survey is carried out, the archaeologists shall evaluate any cultural resources recorded during the course of the survey for their eligibility for listing on the National Register or California Register, make recommendations for treatment of these resources if found to be significant, and make recommendations concerning archaeological monitoring during construction in the survey areas.

Significance after Mitigation: Less than Significant.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact 4.5-5: The project could adversely affect unidentified paleontological resources. *Less than significant* (Class III)

Fossil remains are found in the geologic deposits (sedimentary rock formations) within which they were originally buried. A paleontologically important deposit is one that has a high probability of producing unique, scientifically important fossils. This is determined by the abundance and densities of fossil specimens and/or previously recorded fossil sites in exposures of the deposit. Therefore, the potential paleontological sensitivity of the project site can be assessed by identifying the paleontological importance of geologic deposits within the project site.

A three-tiered classification system for paleontological sensitivity, recommended by the SVP and recognized in California, is listed below:

- High sensitivity – Indicates fossils are currently observed onsite, localities are recorded within the study area, and/or the unit has a history of producing numerous significant fossil remains.
- Low sensitivity – Indicates significant fossils are not likely to be found because of a random fossil distribution pattern, extreme youth of the rock unit, and/or the method of rock formation, such as alteration by heat and pressure.
- Indeterminate sensitivity – Unknown or undetermined sensitivity indicates that the rock unit has not been sufficiently studied or lacks good exposures to warrant a definitive rating. This rating is treated initially as having a high sensitivity or potential. After study or monitoring, this unit may be placed into one of the other categories.

Based on the fossil occurrences, the Ocotillo Conglomerate, the Cabazon Fnglomerate, the older alluvium, the alluvial fan deposits, stream channel deposits, dune sand, and younger alluvium at the surface, are classified as being of low paleontological importance because of their low potential for containing scientifically important fossil remains that might be exposed by earth-moving activities.

However, the Imperial Formation and the younger alluvium at depth are classified as being of high paleontological importance because of their demonstrated high potential for containing scientifically important fossil remains that might be exposed by earth-moving activities. The Imperial Formation occurs in the Garnet Hill area and may be adversely impacted by construction activities associated with the proposed Farrell-Garnet 115 kV subtransmission line. The younger alluvium occurs at numerous locations within the study area; however, this unit is considered to be sensitive only at depths of five feet or more. The younger alluvium may be adversely impacted by construction activities within the proposed Mirage-Santa Rosa 115 kV subtransmission alignment and the proposed Devers-Coachella 220 kV Loop-In alignment.

Earth-moving activities associated with construction in areas where the Imperial Formation or younger alluvium are exposed might result in the disturbance or loss of paleontological resources, including an undetermined number of unrecorded fossil sites and scientifically important fossil specimens and associated fossil specimen data. The disturbance or loss of such resources would be a significant impact. However, implementation of APMs PA-1 through PA-6 would ensure that impacts would be less than significant.

Mitigation: None required

d) Disturb any human remains, including those interred outside of formal cemeteries.

Impact 4.5-6: Project construction could result in damage to previously unidentified human remains. *Less than significant (Class III)*

Damage could occur to previously undiscovered areas of human remains, including those interred outside of formal cemeteries, during grading and other ground disturbing construction related activities. However, APM CUL- 2 (Discovery of Human Remains) would require that if human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County coroner makes the necessary findings as to origin of the remains, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The NAHC would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC would mediate any disputes regarding the treatment of remains. Therefore, impacts to previously unidentified human remains would be reduced to less than significant.

Mitigation: None required.

4.5.5 Cumulative Impacts

There are over 100 proposed, approved, and in-progress projects within 0.5 mile of the Proposed Project and alternative alignments and sites. Section 4.5.4 includes several mitigation measures to reduce potential impacts to cultural resources during construction of the Proposed Project (i.e., accidental damage or destruction of previously unknown archaeological sites) to less-than-significant levels. The study area contains significant archaeological and historical records that, in many cases, have not been well documented or recorded. Thus, there is the potential for future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. However, future projects with potentially significant impacts to cultural resources would be required to comply with federal, State, and local regulations and ordinances

protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, the potential construction impacts of the Proposed Project in combination with other projects in the area would not contribute to a cumulatively significant impact on cultural or paleontological resources. With the mitigation measures identified above, cumulative impacts would be less than significant (Class II).

4.5.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) a new transmission line and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

The construction of a new transmission line and/or a power plant under the No Project scenario would likely result in potential impacts similar to what would occur under the Proposed Project; however, because historical, archaeological, and Native American resources tend to be highly discrete and localized, impacts to historical resources may be avoided by construction-related mitigation measures. The siting and placement of the transmission line and the power plant would determine whether impacts to known or unknown historical, archaeological, and Native American resources would result from project construction and operations. At a minimum, accidental find mitigation would be standard for most any project where ground disturbance would occur. Further mitigation may be necessary if buildings or historical settings are potentially affected by the No Project Alternative.

The construction of a new transmission line and/or a power plant under the No Project scenario would likely result in potential impacts similar to what would occur under the Proposed Project; however, because unique paleontological resources or sites and unique geologic features tend to be highly discrete and localized, impacts may be avoided by construction-related mitigation measures. The siting and placement of the transmission line and/or the power plant would determine whether impacts to known or unknown paleontological resources or unique geologic features would result from project operations. At a minimum, accidental find mitigation would be standard for most any project where ground disturbance would occur.

The potential for impacts to human remains under the No Project Alternative would be similar to those identified under the Proposed Project. In most cases, the existence of human remains or burials is unknown unless a previously identified archaeological site that yielded burials exists within a project area or vicinity. Given the unknown location of construction activity that would occur under the No Project Alternative, potential impacts to human remains cannot be assessed.

At a minimum, however, a procedural mitigation for accidental discoveries of human remains would be standard for most any project where ground disturbance would occur.

Alternative 2

The Alternative 2 alignment would extend through significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Similar to the proposed Farrell-Garnet 115 kV alignment, the Alternative 2 alignment could potentially impact previously recorded resource, *Hoon wit ten ca va* (Garnet Hill). This resource appears significant to the oral histories of the Cahuilla Indian Tribe and may be considered a TCP. Construction of Alternative 2 could result in impacts to *Hoon wit ten ca va* (Garnet Hill). Potential impacts to the resource would be mitigated to a less-than-significant level through the implementation of APM CUL-1 and CUL-6 as well as Mitigation Measure 4.5-2, described above for the proposed Farrell-Garnet 115 kV subtransmission line (Class II).

As with the proposed Farrell-Garnet 115 kV alignment, impacts associated with Alternative 2 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 2 would be essentially the same as those that would result under construction of the proposed Farrell-Garnet subtransmission line. With implementation of APMs PA-1 through PA-6, impacts would be less than significant (Class III).

The potential impacts to human remains that would be associated with Alternative 2 would be essentially the same as those that would result during construction of the proposed Farrell-Garnet subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 3

The Alternative 3 alignment would extend through significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Similar to the proposed Farrell-Garnet 115 kV alignment, the Alternative 3 alignment could potentially impact one previously recorded resource, *Hoon wit ten ca va* (Garnet Hill). This resource appears significant to the oral histories of the Cahuilla Indian Tribe and may be

considered a TCP. Construction of Alternative 3 could result in impacts to *Hoon wit ten ca va* (Garnet Hill). Potential impacts to the resource would be mitigated to a less-than-significant level through the implementation of APMs CUL-1 and CUL-6 as well as Mitigation Measure 4.5-2 (Class II).

As with the proposed Farrell-Garnet 115 kV subtransmission line, construction impacts associated with Alternative 3 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b, and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 3 would be essentially the same as those that would result under construction the proposed Farrell-Garnet 115 kV subtransmission line. With implementation of APMs PA-1 through PA-6, impacts would be less than significant (Class III).

The potential impact to human remains that would be associated with construction of Alternative 3 would be essentially the same as those that would result during construction of the proposed Farrell-Garnet 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 5

Impact 4.5-ALT5-1: Construction of Alternative 5 could adversely affect historic site 33-8408, Varner Road, a segment of which has been recommended eligible for the National Register of Historic Places and the California Register of Historic Resources. *Less than significant* (Class III)

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a “distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system” (Schaefer et al., 2009a:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity.

Approximately 1.3 miles of the Alternative 5 underground alignment would run along Varner Road (33-8408). No formal evaluation of the 1.3-mile segment of Varner Road that intersects the Alternative 5 alignment has been conducted; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this impacts analysis, this 1.3-mile segment of Varner Road that would be impacted by implementation of Alternative alignment 5 is assumed to be similar to the previously evaluated segment, and therefore to be eligible for listing on the NRHP and CRHR. While the pavement on this segment is not original, it is assumed that the route of Varner

Road where it traverses the project area is original in intact. Therefore, Varner Road is considered a historical resource for the purposes of CEQA.

Construction related to Alternative 5 would involve trenching within the Varner Road Right-of-Way for the installation of the underground subtransmission line. Varner Road is considered eligible for the NRHP and CRHR under Criterion A/1 due to its association with early automobile travel across the California deserts. The previous evaluation of Varner Road as a significant historic resource (Schaefer et al., 2009a) was based largely on the integrity of the original pavement, in addition to the road's association with early automobile travel. However, Varner Road where it intersects Alternative 5 has been recently repaved (County of Riverside, 2009). Therefore, the pavement in this segment is not original and proposed trenching related to Alternative 5 would alter pavement that has already been modified. In addition, implementation of Alternative 5 would not impact or modify the route of Varner Road or impact the use of the road to carry automobile traffic. Therefore, impacts to Varner Road would be less than significant.

Mitigation: None required.

The Alternative 5 alignment would extend through significant cultural resource 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

As with the proposed Mirage-Santa Rosa 115 kV subtransmission line, impacts associated with construction of Alternative 5 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with construction of Alternative 5 would be essentially the same as those that would result under the proposed Mirage-Santa Rosa 115 kV subtransmission line; impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with construction of Alternative 5 would be essentially the same as those that would result under the proposed Mirage-Santa Rosa 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 6

The Alternative 6 alignment would extend through one significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Portions of the Alternative 6 alignment were not subject to systematic archaeological survey due to lack of access. These segments will be surveyed if this alternative alignment is selected, per Mitigation Measure 4.5-4c. As with the proposed Farrell-Garnet 115 kV alignment, impacts associated with Alternative 6 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b, and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 6 would be similar to those that would result under the proposed Farrell-Garnet 115 kV subtransmission line, with the exception that Alternative 6 would not impact the high-sensitivity Imperial Formation. Impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with Alternative 6 would be essentially the same as those that would result under the proposed Farrell-Garnet 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 7

The Alternative 7 alignment would extend through one significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Portions of the Alternative 7 alignment were not subject to systematic archaeological survey due to lack of access. These segments will be surveyed if this alternative alignment is selected, per Mitigation Measure 4.5-4c. As with the proposed Farrell-Garnet 115 kV subtransmission line, impacts associated with Alternative 7 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measure 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 7 would be similar to those that would result under the proposed Farrell-Garnet 115 kV subtransmission line, with the exception that Alternative 7 would not impact the high-sensitivity Imperial Formation. Impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with construction of Alternative 7 would be essentially the same as those that would result under construction of the proposed Farrell-Garnet 115 kV subtransmission. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

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