

Section 3.4

Cultural Resources

This section addresses the project's potential impacts in relation to cultural, paleontological, historic, and tribal cultural resources. Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. By statute, CEQA is primarily concerned with two classes of cultural resources: "historical resources," which are defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5, and "unique archaeological resources," which are defined in Public Resources Code Section 21083.2. Tribal cultural resources are generally described as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are further defined in Public Resources Code Section 21074(a)(1)(A)–(B).

The analysis in this section is based on *the Cultural Resources Inventory and Evaluation Report* for the Ord Mountain Solar Project and Calcite Substation Project (November 2016); the *Final Cultural Resources Inventory Report* (October 2016); and the *Cultural Resources Addendum Report* for the Ord Mountain Solar Project and Calcite Substation Project (August 2018), all prepared by Dudek and peer reviewed by Michael Baker International (see **Appendix E**). The analysis herein is further based upon the County of San Bernardino General Plan (2007) and consultation with applicable agencies and tribes.

ENVIRONMENTAL SETTING

CLIMATE, GEOLOGY, AND HYDROLOGY

The project site is located in the Lucerne Valley area of San Bernardino County, which lies within the central Mojave Desert. The climate of the Lucerne Valley region is typical of the central Mojave and of mid-latitude deserts overall with cool, moist winters and hot, dry summers. Temperatures in the winter can dip below freezing, often hovering just above 32°F [degrees Fahrenheit] during winter nights, while summer temperatures are high, averaging from 100° to over 110°F. Prevailing winds are typically westerly at 10–15 knots, with gusts nearing 50 knots a common occurrence. Rainfall occurs primarily during the winter season, totaling less than 4 to 6 inches annually.

The valley itself is characterized primarily by Quaternary alluvium deposits. These alluvial deposits are derived from the mountains surrounding the valley, which are composed primarily of Mesozoic granitic rock (hornblende diorite gabbro granite and quartz monzonite) and Pre-Cambrian metamorphic (quartz diorite gneiss and granite gneiss) rock. Erosion and deflation are the primary factors that have influenced the geomorphological context of Lucerne Valley. Deeply incised

washes drain the Granite Mountains from the west and the Ord Mountains from the north into the dry lake bed of Lucerne Lake in the center of the valley to the south of the project area.

PALEOENVIRONMENT

During the late Pleistocene, vegetation across the region was sustained by a milder (cool-wet) climate. Most of the Mojave Desert was forested by piñon-juniper woodland at elevations of 3,000–4,000 feet lower than those found at present. Large game in the region consisted of Pleistocene horses, camels, and mammoths. As Wisconsin glacial conditions waned between 12,000 and 10,000 Before Present (BP), basin lakes began to desiccate and woodland vegetation began shifting to higher elevations. Over the next few thousand years, the basic climatic conditions, floral communities, and faunal composition of the contemporary central Mojave gradually took form. Much of the desert assumed essentially modern conditions by the middle Holocene (about 7500 BP), as woodland habitat was replaced by mixed saltbush (*Atriplex* spp.) and creosote (*Larrea tridentata*) vegetation during a gradual warming and drying period known as the Altithermal. The next major climatic shift is the Medieval Climatic Anomaly, which is defined as sequential droughts varying in intensity that occurred between about 1200 and 650 BP. The effects of the Medieval Climatic Anomaly on desert environments are questionable, given that most plant and animal communities in the desert regions were already drought-tolerant. Nevertheless, a major impact of punctuated droughts would be the reduction of available water—one resource critical for human occupation. Finally, the last 650 years of prehistory are defined by a high degree of variation in precipitation and seasonal temperatures. That these fluctuations produced on-the-ground changes in biotic communities is a subject of debate, despite their recent occurrence.

CULTURAL RESOURCES INVENTORY RESULTS

The boundaries of the area of potential effects (APE) that was analyzed as part of the cultural resources inventory includes the 484-acre proposed solar facilities site. However, it does not include the Calcite Substation area. A separate study was conducted for the Calcite Substation area in 2016, and supplemented in 2018, the results of which are also summarized herein.

The APE for the solar facility was previously surveyed in 2009 and 2011, at which time three archaeological sites and six isolates were identified. All nine resources were recommended as not significant under CEQA and not eligible for listing in the California Register of Historical Resources (CRHR). An intensive pedestrian survey of the APE was conducted as part of the cultural resources inventory for the proposed project in July 2016. The three previously recorded archaeological sites and two newly recorded archaeological sites were identified in the APE. All five sites are related to historic ranching/agriculture, including a residential house which the other sites are likely related to. These resources are listed in Table 3.4-1.

Additionally, the 2016 cultural resource inventory for the Calcite Substation included the gen-tie line to be constructed in association with the solar facility. This inventory conducted for the Calcite Station identified Barstow Road/State Route 247 (P-36-028005/CA-SBR-17465H) which was previously recommended as eligible for listing in the National Register of Historic Places (NRHP) and the CRHR. Additionally, Site P-36-014876/CA-SBR-13115H was previously recommended eligible for listing under NRHP Criterion A and CRHR Criterion 1 (ICF 2016).

The 2016 cultural resource inventory for the Calcite Substation identified three additional resources within the study area that were not evaluated for significance under CEQA at that time. Two archaeological sites (ICF-CAL-1 and ICF-CAL-2) were identified along the Gen-tie alternative alignment and one previously-recorded site (SBR-2145) was identified along the telecommunication line alignment. However, subsequent evaluation of these resources in 2018 was performed and determined that Site ICF-CAL-1 (historic homesite) would be avoided, and therefore, a significance evaluation was not performed. Site ICF-CAL-2 (historic refuse scatter) was determined not to be eligible for listing on the CRHR, and therefore, is not significant under CEQA. Site SBR-2145 (pre-contact village site) was determined to be outside of the APE, and therefore, a significance evaluation was not performed.

**Table 3.4-1:
Archaeological Sites in the Project Area of Potential Effects**

Resource Number	Period	Type	CRHR Status	Description
Ord Mountain Solar and Energy Storage Project				
P-36-021160/ CA-SBR-13657	Historic	Historic Agricultural Remains	Not eligible	Various concrete pads and pipe fittings
P-36-021161/ CA-SBR-13658	Historic	Wooden Utility Poles	Not eligible	Numerous groupings of wooden power poles
P-36-021162/ CA-SBR-13659	Historic	Historic Agricultural Remains	Not eligible	Various concrete pads and pipe fittings
P-36-021163	Prehistoric	Isolate	Not eligible	Granitic millingstone
P-36-021164	Prehistoric	Isolate	Not eligible	Chert flake
P-36-021165	Prehistoric	Isolate	Not eligible	Basalt biface
P-36-021166	Prehistoric	Isolate	Not eligible	Basalt flake
P-36-021167	Prehistoric	Isolate	Not eligible	Granitic millingstone
P-36-021168	Prehistoric	Isolate	Not eligible	Chert flake

Resource Number	Period	Type	CRHR Status	Description
Calcite Substation / Gen-Tie Alignment				
P-36-028005/CA-SBR-17465	Historic	Historic Roadway	Eligible (roadway only)	Barstow Road/State Route 247 and associated debris scatter, collapsed structure, and sign frame
P-36-002145/SBR-02145	Prehistoric	Village	Undetermined	Prehistoric village with groundstone, debitage, and projectile points
P-36-014876/CA-SBR-13115H, P-36-024245/CA-SDI-15430H	Historic	Transmission Line Segments / Access Roads	Eligible [First (No. 1) and Second (No. 2) Lines only]	Transmission lines Southern California Edison's First (No. 1), Second (No. 2), and Third (No. 3) Boulder Lines; Access roads
ICF-CAL-1 (P-36-29900)	Historic	Historic Homestead	Undetermined	Shed-roofed rectangle-plan building; concrete-lined water retention basin
ICF-CAL-2 (P-36-29901)	Historic	Historic Trash Scatter	Not Eligible	Roadside trash scatter with multiple deposits

Source: Dudek 2016 and 2018; ICF 2016. Refer to Appendix E.

PREHISTORIC SETTING

PALEOINDIAN (PRE-10,000 BP)

Though much has been written about the Paleoindian period in western North America, it remains poorly understood, especially in the Mojave Desert where organic materials associated with Paleoindian toolkits and suitable for radiocarbon assays are virtually nonexistent. The problem is made worse by the vagaries of obsidian hydration from specimens that date to this period (due largely to weathered or sandblasted specimens). The hallmark artifacts of the Paleoindian period—fluted concave base projectile points—are not an uncommon occurrence throughout the Mojave, particularly on the China Lake Naval Air Weapons Station. Since then, discoveries of fluted concave base points have become more common, especially on military installations where most systematic archaeological work has occurred.

Fluted concave base points remain the hallmark of Paleoindian occupation because they are technologically distinctive and their morphological correlates are well dated to the 12,000-10,000 BP (late Pleistocene) in the Great Plains. To be sure, the best case for late Pleistocene occupation of the Mojave Desert comes from the China Lake assemblages where Emma Lou Davis reported fluted concave base points in strong association with burned bone from extinct late Pleistocene fauna. When found with other tools, fluted points tend to be associated with a highly formalized lithic tool kit consisting of shaped scraping and cutting tools, and crescents, with groundstone being essentially absent.

Most early discoveries of fluted points have occurred along the margins of Pleistocene dry lake beds, leading to an obvious assumption that Paleoindian groups were adapted to lacustrine environments for targeting large game, and the definition of the Western Pluvial Lakes Tradition. However, research in the last 40 years since has demonstrated that fluted point sites occur in a variety of environments, indicating that inhabitants were likely generalized foragers rather than specialized big game hunters. However, much debate surrounds this interpretation because of the specialized nature of fluted point technology. Regardless, there is little, if any, debate that Paleoindian groups were highly mobile. This is inferred from the wide range of lithic raw materials reflected in fluted point assemblages indicating that the points traveled far from the stone sources.

LAKE MOJAVE AND SILVER LAKE (10,000 TO 7,000 BP)

In the western Great Basin, various stemmed projectile point forms have been fairly well dated to the early Holocene, roughly between 10,000–7500 BP. The “Great Basin Stemmed” label is used to describe a relatively wide range of stemmed points characterized by relatively long lanceolate blades with obtuse stem-to-shoulder angles that are often rounded. In the Mojave Desert, Great Basin Stemmed varieties are represented by relatively slender Lake Mojave (unshouldered) and Silver Lake (slightly shouldered) forms. Associated toolkits are similar to those found with fluted points, and include various shaped scraping and cutting tools, bifaces, and crescents. The formal shape of these items is both a product of initial shaping as well as rejuvenation over time. Also like fluted points, Lake Mojave and Silver Lake points were at first thought to be associated with extant Pleistocene lakes due to their discovery in such contexts. However, recent research has shown that they occur in a wide range of contexts outside of lacustrine settings. Lake Mojave and Silver Lake are generally thought to reflect the same socioeconomic pattern as San Dieguito and Death Valley. This similarity is borne out by the discovery of Lake Mojave and Silver Lake point forms located in archaeological sites in the San Diego region. More interesting is that there are indications at some Lake Mojave and Silver Lake sites that grinding implements increase in frequency and signify the growing importance of vegetal processing; though such an inference is not well substantiated. Regardless, preservation bias (including preservation of grinding tools in erosional contexts) likely contributes to a misunderstanding of the role of plant foods in Early Holocene contexts. The contribution of different foods to the diet of people inhabiting the Mojave Desert during Lake Mojave and Silver Lake periods is largely inferred from subsistence technology. A consensus is developing that suggests the variability in the form and use of subsistence technology of these periods is indicative of a generalized diet with regionally variant manifestations. Despite such regional variability, faunal profiles from Lake Mojave and Silver Lake sites appear stable. Small game seems to predominate in these assemblages, though medium and large-bodied prey are not rare.

PINTO (7,000 TO 4,000 BP)

Archaeological assemblages dating to this period are typified by Pinto points, projectiles bearing weak shoulders and indented or split-stem bases. Associated flaked stone assemblages include leaf-shaped bifaces, formal unifaces, simple flake tools, and large quantities of groundstone and core-cobble implements. The stark abundance of groundstone in Pinto assemblages signals a fundamental shift in subsistence and settlement, leading most researchers to speculate that seed processing was a socioeconomic response to the Altithermal—a period of marked aridity for the desert west. Early research continued to be site-specific in approach, producing a biased record that, on the surface, indicates the Mojave Desert was all but abandoned during the Altithermal of the Middle Holocene. However, ongoing research has documented an abundance of Pinto period sites in the Mojave—large and small—indicating instead very regular, serial occupation of sites with access to predictable resources. Moreover, additional research indicates that the Altithermal was variable in its onset, magnitude, and consistency, likely being regionally variable in the degree of aridity.

Regardless, the pattern of serial site occupation during Pinto times generated vast, relatively homogenous assemblages. In areas of raw material abundance, Pinto toolkits appear more expedient in nature, taking advantage of easily exploitable local materials for use as grinding stones and for lithic tool production, while smaller or more task specific sites have higher proportions of shaped tools, including shaped grinding stones. Indeed, the high visibility of large Pinto habitation sites would appear at first glance to signify larger, more stable populations. However, serial site occupation is a more likely scenario for the robustness of these assemblages, and population densities during Pinto times probably remained similar to those during the Silver Lake period, if not slightly denser.

The large numbers of grinding stones have been taken to signify a widening of diet breadth to exploit lower ranked seeds with higher processing costs. Small animals continue to dominate Pinto period faunal profiles, as they did during the Silver Lake period, lending support to such a scenario. Additionally, Pinto period midden deposits seem more abundant or least recognizable than during the Lake Mojave/Silver Lake period. However, the trend of increasing diet breadth probably began during the Lake Mojave/Silver Lake period, as indicated by morphological characteristics of subsistence tools and the presence of groundstone implements therein.

GYP SUM (4,500 TO 1,500 BP)

Diagnostic artifacts at Gypsum period sites include Gypsum contracting-stem projectile points, Elko Eared and Corner-notched points, and Humboldt Basal-notched points. Lithic assemblages are typified by bifaces, formal scrapers, a large number and variety of other flake-based tools, and millingstones and handstones, but also contain mortars and pestles as evidence of expanded

plant processing (including mesquite, pine nuts, yucca, and agave). Sutton speculates that the presence of some large villages or village complexes that appear during Gypsum times reflect a transition from seasonal transhumance to year-round sedentary occupation, although this pattern may have been limited to the southwestern Mojave Desert, particularly within the Antelope Valley. Regardless, the Gypsum period appears to be defined by subsistence intensification and the development of large scale regional trade relations. The terminus of the Altithermal between 5,000–4,000 years BP produced widespread improvement in environmental conditions, including the availability of water and stable resource communities. The effect of these environmental changes on human subsistence is inferred from an apparent increase in large game hunting and the intensive exploitation of high value seed and nut crops, mainly pinyon, mesquite, and acorn.

Marked intensification beginning during Gypsum times is supported by a sharp increase in the frequency of milling tools at Gypsum period sites on Fort Irwin; a pattern paralleled at Twentynine Palms Marine Corps Air Ground Combat Center, as well as on Edwards Air Force Base.

Subsistence intensification and consequent shifts in settlement were accompanied by enhanced cultural relationships between various Mojave Desert groups. Given the high mobility of Mojave Desert groups for much of the Holocene, trans-desert trade relationships have likely been in place and somewhat complex for a long period of time. These trade relationships are evidenced by Lake Mojave and Silver Lake points (likely occupations) at coastal sites in San Diego County, as well as marine shell items in Mojave Desert sites that date to the Early Holocene. Additional evidence of early trans-desert relationships also come from Newberry Cave, where split-twig figurines were identified that appear similar to those in the Grand Canyon. Anasazi ceramics are reported in Mojave Desert sites. Halloran Springs provided evidence not only of Anasazi ceramics, but also of turquoise quarrying that was used by prehistoric and ethnohistoric aboriginal groups for trade.

SARATOGA SPRINGS (1,500 TO 800 BP)

By at least 1500 BP, the aboriginal people of the Mojave Desert had replaced the atlatl (or spear-thrower) with the bow and arrow. This change brought about a shift toward the use of smaller projectile points, including various corner-notched and side-notched Saratoga Springs types and the corner-notched Rose Spring and Eastgate types. Anasazi ceramics are more common in the southern Mojave around 1200–1100 BP, coinciding with the westward spread of the Virgin Anasazi into southern Nevada. Influence from the cultures of the Colorado River eventually grew stronger than those from the west, allowing for an influx of buffware ceramics and other goods that persisted until the historic present. The intensification of plant use initiated during the Gypsum period continued in the Saratoga Springs period, as diet breadth was expanded to include a wide range of plant foods that required high cost/high return procurement

and processing strategies. This is indicated by a general increase in milling equipment from Gypsum times through the Saratoga Springs period. An increase in plant use might have continued until about 700 BP, when artiodactyl overexploitation necessitated the further expansion of native diets and vegetal resources first assumed a dominant economic role. However, the appearance of mortars and pestles—by all accounts, a costly processing technology—during earlier Gypsum times suggests that plant processing was already taking a dietary lead.

PROTOHISTORIC (800 TO 300 BP)

Social and economic adaptations during this final prehistoric interval were largely an extension of patterns that developed during the Saratoga Springs period. Trade along the Mojave River continued to provide the people of the eastern Antelope Valley with a variety of exotic goods and materials, although it appears that relationships with groups in coastal California eventually grew stronger than those with groups inhabiting the arid interior, suggested by acorns and shell beads becoming more common. Projectile points also shifted in form, with unnotched Cottonwood Triangular and Desert Side-notched points being even smaller than their predecessors. Mortars and pestles also appear in significant quantities, probably an indication of increased emphasis on high-cost/high-yield processing.

ETHNOHISTORY

Aboriginal groups that inhabited the Mojave Desert at the time of contact with Euroamerican explorers and settlers were numerous, including Numic-speakers (Southern aiute/Chemehuevi, Kawaiisu, and Panamint Shoshone), and Takic speakers (Serrano/Vanyume). The Chemehuevi are likened unto the Kawaiisu, only more desert oriented; likewise, the Vanyume are likened unto the Serrano, but more focused along the Mojave River. The western and central Mojave Desert regions were a nexus between several aboriginal groups due to productive trade routes along the Mojave River. The overlap of Numic and Takic-speaking groups, taken as evidence of different cultural heritage, has been cited as a possible source of settlement and subsistence variability and inferences of land tenure between the Chemehuevi and the Vanyume. A detailed overview for the Serrano/Vanyume is presented below, as the project site is located in Serrano/Vanyume territory.

The Vanyume were a northern division of the Serrano Indians that generally inhabited the Mojave River corridor and the broader Barstow region. Perhaps the most significant difference between the Vanyume and Serrano is that the Vanyume enjoyed good trade relations with the Mojave and Chemehuevi—both enemies of the southerly Serrano. These trade relations contributed to easier access to foods and other goods not available on the central Mojave Desert floor, such as acorns. Bean and Smith and Kroeber note that the Vanyume sometimes visited the southerly

foothills in the San Gabriel Mountains to trade for acorns. Father Francisco Hermenegildo Garcés noted that he had been given acorn meal at a Vanyume village southwest of what is currently Barstow. This account seems to confirm the notion that the Vanyume were distinct from the Serrano based on trade relations and geography.

Most information on the Serrano relates to the more southern areas near Twentynine Palms and Victorville, with less information available about the Vanyume. However, it is generally inferred that subsistence among the Vanyume was based on a typical Mojave Desert adaptation, similar to other groups such as the Chemehuevi. Staple foods included Mesquite, pinyon, acorns, yucca, cactus, small seeds, chia, and ricegrass, with other plants supplementing the diet when available. Small game, including reptiles, rodents, and birds were the primary game targeted, but larger-bodied antelope and mountain sheep were taken if encountered. Subsistence technology was relatively standard and included bows and arrows, throwing sticks, traps and snares, deadfalls, millingstones and handstones, and mortars and pestles; although the daily economic significance of any one of these is not well understood. Communal hunting (deer and rabbit) and gathering (acorn and mesquite) events were sometimes organized on an annual basis; Bean and Smith reported that community activities were organized during the annual mourning ceremony. The Vanyume/Serrano also had a relatively standard material culture consisting of cordage-based containers, mats, and baskets, undecorated brownware pottery (paddle and anvil method), with basketry providing supplemental containers of various kinds, winnowers, and as hoppers for portable stone mortars. Vanyume settlement was centered on single families, with dwellings consisting of basic circular wood lattice structures covered with either brush or mats as available. Like the Chemehuevi, more substantial dwellings occurred at seasonal villages; including shade structures, sweat houses, and granaries (elevated acorn or seed/nut storage facilities).

HISTORIC SETTING

Unlike the coastal areas of California, the Mojave Desert was not intensively explored by the Spanish in early historic times, remaining beyond the limit of Hispanic settlement during the period of Mexican rule, that ended after the Mexican-American War of 1848. The first visit to the region by the Spanish was made in 1772 by Pedro Fages, who was searching for deserters from the Spanish army. In 1776, Father Francisco Hermenegildo Garcés traveled the course of the Mojave River across the desert and the mountains westward through the Tejon Pass. A portion of the Garcés route was the first documented use of what was eventually called the Old Spanish Trail, an important transportation route between Southern California and Santa Fe. Garcés' venture into the Mojave Desert while traveling from Sonora to Los Angeles is an example of the many attempts to find pathways through the desert, although it would appear from his writings and his dealings with military Captain Fernando Rivera that Garcés was more concerned about good relations with native populations. In any case, a stable trade route was not established until well after Mexico

achieved independence from Spain in 1821, when Antonio Armijo opened a trade route between Santa Fe and Los Angeles between 1829 and 1831. The newly established trade route enhanced economic ties between Mexican colonies for a short time until 1848 when the Spanish ceded much of its territory to the United States. Other explorers made more regular visits to the Mojave Desert beginning in the late 1820s. Early explorers included trappers Jedediah Smith and Joseph Walker. Kit Carson, a trapper on Jedediah Smith's 1828 expedition, later served as guide for John C. Frémont's exploratory expedition in 1844 traveling parts of the Old Spanish Trail. Although the exact route is unknown, and likely varied over time, the trail is generally thought to proceed through Silurian Valley from Salt Spring, along the west side of Silurian Lake, across Red Pass, and down to Bitter Spring, then south to the Mojave River.

The Old Spanish Trail (also known as the Santa Fe Trail or Mormon Road) is currently a listed National Historic Trail (CA-SBR-4272H/CHL 576), and was a corridor made up of a series of roads and trails between common points connecting New Mexico and California with its period of significant use occurring between Garces' initial travels in 1776 through the exploratory mining days prior to 1882. It was originally named by John Fremont after his 1844 scientific expedition during which he surmised that he was following the original Spanish trail. With publication of the trail by the US Government after Kit Carson took the maps and news to Washington, DC, including news of California gold strikes, the "49ers" gold rush was born.

The Old Spanish Trail likely has its roots in ancient Native American trail systems; in this sense, the act of blazing the trail by the Spanish was more an act of Indian suppression than of finding appropriate terrain. Following Spanish and Mexican use of the trail, trappers, emigrants, and especially miners made use of it for various purposes, leading to segments of the trail being given different names.

LUCERNE VALLEY

Settlers arrived in Lucerne Valley in the 1870s, with a way station set up by mid-1880s for travelers to rest and get water. Settlement followed shortly after the 1867 battle at Chimney Rock (California Historical Landmark 737), the final fight in a series of hostilities between settlers in the San Bernardino Mountains and Paiute, Chemehuevi, and Serrano Native Americans throughout the 1860s.

Jim Goulding came to Lucerne Valley in 1897 from Colorado, after a brief stay in San Bernardino, settling near Rock Spring. Goulding took over Box S Ranch, which was the de facto name of the area, and began drilling for water and mining. Goulding put in orchards a few years later, and was shortly followed by homesteaders once reliable water was established. Alfalfa, called Lucerne by the Mormons, became a staple crop of the valley within a few years, leading to the official naming

of the valley and town. Fruit ranches, turkey farming, poultry and egg raising, and rabbit ranching for meat and fur were also advertised as desirable industries for newcomers.

REGULATORY FRAMEWORK

FEDERAL

ARCHAEOLOGICAL RESOURCES PROTECTION ACT

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological sites and resources that are on Native American lands or federal lands.

SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The council's implementing regulations, Protection of Historic Properties, are found in 36 Code of Federal Regulations Section 800. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in 36 CFR 60. Amendments to the act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal funding.

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places is "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." However, the federal regulations explicitly provide that a listing of private property on the NRHP "does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

Historic properties, as defined by the Advisory Council on Historic Preservation, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior" (36 CFR Section 800.16[I]). Eligibility for

inclusion in the NRHP is determined by applying the following criteria, developed by the National Park Service in accordance with the NHPA:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

1. that are associated with events that have made a significant contribution to the broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody 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
4. that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

STATE

State historic preservation regulations affecting the project include the statutes and guidelines contained in CEQA, Public Resources Code (PRC) Sections 20183.2 and 21084.1, and CEQA Guidelines Section 15064.5. CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. A historical resource includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript which is historically or archaeologically significant (PRC Section 5020.1). Section 15064.5 of the CEQA Guidelines specifies criteria for evaluating the significance or importance of cultural resources, including:

- The resource is associated with events that have made a contribution to the broad patterns of California history;
- The resource is associated with the lives of important persons from our past;
- The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to museums, historical commissions, associations, and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

SENATE BILL 18

California Senate Bill (SB) 18, effective September 2004, requires local government to notify and consult with California Native American tribes when the local government is considering adoption or amendment of a general plan or specific plan. Prior to adoption of a specific plan, a local government must refer the proposed action to those tribes that are on the Native American Heritage Commission contact list and have traditional lands located within the city's or county's jurisdiction. The referral must allow a 45-day comment period as pursuant to Government Code Section 65453.

ASSEMBLY BILL 52

On September 25, 2014, Governor Brown signed AB 52, which creates a new category of environmental resources that must be considered under CEQA: tribal cultural resources. The legislation imposes new requirements for consultation regarding projects that may affect a tribal cultural resource, includes a broad definition of what may be considered to be a tribal cultural resource, and lists recommended mitigation measures.

AB 52 adds tribal cultural resources to the categories of cultural resources in CEQA, which had formerly been limited to historic, archaeological, and paleontological resources. Tribal cultural resources are defined as either:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in the state register of historical resources or a local register of historical resources, or that are determined to be eligible for inclusion in the state register; or
2. Resources determined by the lead agency, in its discretion, to treat the resource as a tribal cultural resource.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

AB 2881 was signed into law in 1992, establishing the California Register of Historical Resources. The CRHR is an authoritative guide in California used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The criteria for eligibility for the CRHR are based on National Register of Historic Places criteria. Certain resources are determined by the statute to be included on the CRHR, including California properties formally determined eligible for, or listed in, the NRHP, State Landmarks, and State Points of Interest.

The California Office of Historic Preservation (OHP) has broad authority under federal and state law for the implementation of historic preservation programs in California. The State Historic Preservation Officer makes determinations of eligibility for listing on the NRHP and the CRHR.

The appropriate standard for evaluating "substantial adverse effect" is defined in PRC Sections 5020.1(q) and 21084.1. Substantial adverse change means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired. Such impairment of significance would be an adverse impact on the environment.

Cultural resources consist of buildings, structures, objects, or archaeological sites. Each of these entities may have historic, architectural, archaeological, cultural, or scientific importance. Under the CEQA Guidelines, a significant impact would result if the significance of a cultural resource would be changed by project area activities. Activities that could potentially result in a significant impact include demolition, replacement, substantial alteration, and relocation of the resource. The significance of a resource is required to be determined prior to analysis of the level of significance of project activities. The steps required to be implemented to determine significance in order to comply with CEQA Guidelines are:

- Identify cultural resources.
- Evaluate the significance of the cultural resources based on established thresholds of significance.
- Evaluate the effects of a project on all cultural resources.
- Develop and implement measures to mitigate the effects of the project on significant cultural resources.

Sections 6253, 6254, and 6254.10 of the California Government Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (CPRA; Government Code [GC] Section 6250 et seq.) and California's open meeting laws (the Brown Act, GC Section 54950 et seq.) protect the confidentiality

of Native American cultural place information. The CPRA (as amended, 2005) contains two exemptions that aid in the protection of records relating to Native American cultural places by permitting any state or local agency to deny a CPRA request and withhold from public disclosure:

- Records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in Section 5097.9 and Section 5097.993 of the Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or a local agency (GC Section 6254(r)); and
- Records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency (GC Section 6254.10).

Likewise, the Information Centers of the California Historical Resources Information System (CHRIS) maintained by the OHP prohibit public dissemination of records and site location information. In compliance with these requirements and those of the Code of Ethics of the Society for California Archaeology and the Register of Professional Archaeologists, the locations of cultural resources are considered restricted information with highly restricted distribution and are not publicly accessible.

Any project site located on non-federal land in California is also required to comply with state laws pertaining to the inadvertent discovery of Native American human remains.

CALIFORNIA HEALTH AND SAFETY CODE SECTIONS 7050.5, 7051, AND 7054

California Health and Safety Code Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

LOCAL

SAN BERNARDINO COUNTY GENERAL PLAN

The General Plan Conservation Element includes concepts and guidelines to manage, preserve, and use cultural resources. The following goals, policies, and programs are applicable to the proposed project:

CONSERVATION ELEMENT

Goal CO 3 The County will preserve and promote its historic and prehistoric cultural heritage.

Policy CO 3.1 Identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.

Programs

1. Require a cultural resources field survey and evaluation prepared by a qualified professional for projects located within the mapped Cultural Resource Overlay area.
2. Mitigation of impacts to important cultural resources will follow the standards established in Article 9 of the California Environmental Quality Act Guidelines, as amended to date.

Policy CO 3.2 Identify and protect important archaeological and historic cultural resources in all lands that involves disturbance of previously undisturbed ground.

Programs

1. Require the Archaeological Information Center at the San Bernardino County Museum to conduct a preliminary cultural resource review prior to the County's application acceptance for all land use applications in planning regions lacking Cultural Resource Overlays and in lands located outside of planning regions.
2. Should the County's preliminary review indicate the presence of known cultural resources or moderate to high sensitivity for the potential presence of cultural resources, a field survey and evaluation prepared by a qualified professional will be required with project submittal. The format of the report and standards for evaluation will follow the "Guidelines for Cultural Resource Management Reports" on file with the San Bernardino County Land Use Services Department.

Policy CO 3.3 Establish programs to preserve the information and heritage value of cultural and historical resources.

Policy CO 3.4

The County will comply with Government Code Section 65352.2 (SB 18) by consulting with tribes as identified by the California Native American Heritage Commission on all General Plan and specific plan actions.

Programs

1. Site record forms and reports of surveys, test excavations, and data recovery programs will be filed with the Archaeological Information Center at the San Bernardino County Museum and will be reviewed and approved in consultation with that office.
 - a. Preliminary reports verifying that all necessary archaeological or historical fieldwork has been completed will be required prior to project grading and/or building permits.
 - b. Final reports will be submitted and approved prior to project occupancy permits.
2. Any artifacts collected or recovered as a result of cultural resource investigations will be catalogued pursuant to County Museum guidelines and adequately curated in an institution with appropriate staff and facilities for their scientific information potential to be preserved. This shall not preclude the local tribes from seeking the return of certain artifacts as agreed to in a consultation process with the developer/project archaeologist.
3. When avoidance or preservation of an archaeological site or historic structure is proposed as a form of mitigation, a program detailing how such long-term avoidance or preservation is assured will be developed and approved prior to conditional approval.
4. In areas of potential but unknown sensitivity, field surveys prior to grading will be required to establish the need for paleontologic monitoring.
5. Projects requiring grading plans that are located in areas of known fossil occurrences, or demonstrated in a field survey to have fossils present, will have all rough grading (cuts greater than 3 feet) monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Fossils include large and

small vertebrate fossils, the latter recovered by screen washing of bulk samples.

6. A report of findings with an itemized accession inventory will be prepared as evidence that monitoring has been successfully completed. A preliminary report will be submitted and approved prior to granting of building permits, and a final report will be submitted and approved prior to granting of occupancy permits. The adequacy of paleontologic reports will be determined in consultation with the Curator of Earth Science, San Bernardino County Museum.

Policy CO 3.5

Ensure that important cultural resources are avoided or minimized to protect Native American beliefs and traditions.

Programs

1. Consistent with SB 18, as well as possible mitigation measures identified through the CEQA process, the County will work and consult with local tribes to identify, protect and preserve “traditional cultural properties” (TCPs). TCPs include both manmade sites and resources as well as natural landscapes that contribute to the cultural significance of areas.
2. The County will protect confidential information concerning Native American cultural resources with internal procedures, pursuant to the requirements of SB 922, an addendum to SB 18. The purpose of SB 922 is to exempt cultural site information from public review as provided for in the Public Records Act. Information provided by tribes to the County shall be considered confidential or sacred.
3. The County will work in good faith with the local tribes, developers/applicants and other parties if the local affected tribes request the return of certain Native American artifacts from private development proposed projects. The developer is expected to act in good faith when considering the local tribe’s request for artifacts. Artifacts not desired by the local tribe will be placed in a qualified repository as established by the California State Historical Resources Commission. If no facility is available, then all artifacts will be donated to the local tribe.
4. The County will work with the developer of any “gated community” to ensure that the Native Americans are allowed future access, under

reasonable conditions, to view and/or visit known sites within the “gated community.” If a site is identified within a gated community proposed project, and preferably preserved as open space, the development will be conditioned by the County allow future access to Native Americans to view and/or visit that site.

5. Because contemporary Native Americans have expressed concern over the handling of the remains of their ancestors, particularly with respect to archaeological sites containing human burials or cremations, artifacts of ceremonial or spiritual significance, and rock art, the following actions will be taken when decisions are made regarding the disposition of archaeological sites that are the result of prehistoric or historic Native American cultural activity:
 - a. The Native American Heritage Commission and local reservation, museum, and other concerned Native American leaders will be notified in writing of any proposed evaluation or mitigation activities that involve excavation of Native American archaeological sites, and their comments and concerns solicited.
 - b. The concerns of the Native American community will be fully considered in the planning process.
 - c. If human remains are encountered during grading and other construction excavation, work in the immediate vicinity will cease and the County Coroner will be contacted pursuant to the state Health and Safety Code.
 - d. In the event that Native American cultural resources are discovered during project development and/or construction, all work in the immediate vicinity of the find will cease and a qualified archaeologist meeting U.S. Secretary of Interior standards will be hired to assess the find. Work on the overall project may continue during this assessment period.
 - e. If Native American cultural resources are discovered, the County will contact the local tribe. If requested by the tribe, the County will, in good faith, consult on the discovery and its disposition with the tribe.

SAN BERNARDINO COUNTY DEVELOPMENT CODE

Development Code Chapter 82.12, Cultural Resources Preservation (CP) Overlay, includes regulations pertaining to the identification and preservation of important archaeological and historical resources. The chapter outlines application requirements for a project proposed within a CP Overlay, as well as development standards and explanation of the need for a Native American monitor.

The Development Code states that the CP Overlay may be applied to areas where archaeological and historic sites that warrant preservation are known or are likely to be present. Specific identification of known cultural resources is indicated by listing in one or more of the following inventories: California Archaeological Inventory, California Historic Resources Inventory, California Historical Landmarks, California Points of Historic Interest, and/or National Register of Historic Places.

IMPACT ANALYSIS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on CEQA Guidelines Appendix G. For the purposes of this EIR, the project would be considered to have a significant impact on cultural resources if it would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

PROJECT IMPACTS AND MITIGATION

HISTORIC RESOURCES

Impact 3.4-1 The project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. Impacts would be less than significant.

The Cultural Resources Inventory and Evaluation Report (Dudek 2016) consisted of a records search encompassing a 1-mile radius around the proposed project area at the South Central Coastal Information Center (SCCIC), at California State University, Fullerton, an intensive pedestrian survey of the entire APE, and an evaluation of cultural resources identified in the project APE. The SCCIC records search, performed in July 2016, also included a review of the OHP Determinations of Eligibility file and Directory of History Properties, California Points of Historical Interest, California Historical Landmarks, and Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys. All prehistoric and historic sites and isolates identified during the inventory within or immediately adjacent to the APE were recorded in their entirety on California Department of Parks and Recreation Form DPR 523 (Series 1/95), using the instructions for recording historical resources.

As shown previously in Table 3.4-1, the pedestrian survey of the APE identified two new historic sites (OM-PK-004 and OM-PK-009) and relocated three previously recorded historic period sites (CA-SBR-13657, CA-SBR-13658, and CA-SBR-13659). Six previously recorded prehistoric isolates were not relocated. The five historic sites consist of a single-family home, various ranching/agricultural features, such as water troughs, foundations/slabs for indeterminate structures, and utility poles, which likely are associated with the agricultural activities. Although no definitive connection can be made, it is likely that the occupant of the home at the site OM-PK-004 was the farmer/rancher using the surrounding fields and who most likely constructed the various structures and troughs.

Because of the lack of existing structures which would have been built on the foundations/pads at sites CA-SBR-13657 and CA-SBR-13659, it is not possible to determine their exact functions or architectural styles. The troughs and utility poles present at sites CA-SBR-13657, CA-SBR-13658,

and OM-PK-009 are still generally intact. However, none of the features are unique or notable in any way.

As appropriate, resources present within the APE for the solar facility were evaluated for significance under CEQA. None of the sites are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion A); none of the sites are associated with the lives of persons important in our past (Criterion B); none of the sites embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a an important creative individual, or possess high artistic values (Criterion C); and none have yielded, or may be likely to yield, information important in prehistory or history (Criterion D). Therefore, none of the sites are considered to be significant and none are eligible for listing in the CRHR. In accordance with CEQA, no historical resources are present, and no historical resources would be impacted within the APE for the solar and energy storage project. Refer also to Table 3.4-1.

Additionally, Site P-36-028005, intersects the gen-tie line corridor. This resource, Barstow Road/SR 247, was previously recommended eligible for listing in the NRHP and CRHR under Criterion A and 1, respectively, and is considered a historical resource under CEQA. The road would not be modified by the project, and therefore, no direct impact to the resource would occur. The gen-tie line would be located adjacent to three existing steel lattice electric transmission lines that cross the road. Because of the gen-tie line's proximity to the existing transmission lines, the gen-tie would blend into the existing scenery, and therefore, would not cause an indirect (visual) impact to the resource.

As part of the improvements for the Calcite Substation, two existing 220 kV steel lattice transmission tower structures located on the NRHP-eligible Southern California Edison (SCE) Lugo-Pisgah No. 1 line would be removed and two new transmission lines and six associated towers would be erected. The SCE Lugo-Pisgah No. 1 and No. 2 transmission lines (P-36-014876/CA-SBR-13115H) were determined to be eligible for the NRHP under Criterion A and CRHR Criterion 1 for their "direct association with the history of the Boulder Dam/Hoover Dam construction and hydroelectric generation project and for serving as the first two lines to transmit high voltage electricity to the Los Angeles region by the Southern California Edison Company" (Dudek 2018).

The SCE Lugo-Pisgah No. 1 and Lugo-Pisgah No. 2 220kV Transmission Lines are modern-day segments of two larger transmission lines built in a shared right-of-way between 1938 and 1941 as the SCE Boulder-Chino North (No. 1) and South (No. 2) 220kV Transmission Lines. The First Boulder Line was historically the Boulder-Chino North 220 kV Transmission Line ('North' line) and today is the SCE Lugo-Pisgah No. 1 Transmission Line; the Second Boulder Line was historically the Second Boulder-Chino 220 kV Transmission Line ('South' line) and today is the Lugo-Pisgah No. 2

Transmission Line and are independent from the Los Angeles Department of Water and Power Boulder Dam-Los Angeles No. 1, 2, and 3 lines initially constructed and put into service in 1936. SCE constructed a Third Boulder Line in 1945; the Third Boulder Line was historically the Chino-Hayfield 220 kV Transmission Line and is still in operation under multiple modern-day transmission line segment identifiers.

Prior evaluations determined that the surrounding setting or scenic features of the Lugo-Pisgah No. 1 and No. 2 Transmission Lines have not been identified as a contributing element to the significance and NRHP eligibility of the lines, and significance of both lines does not originate from their aesthetic features (Dudek 2018). Rather, the importance of the Lugo-Pisgah No. 1 and No. 2 Transmission Lines is based upon the electrical voltage technology, length of span, historical connection and association with the Hoover Dam and the conveyance of electricity between the Hoover Dam and the Los Angeles region. Such evaluations determined that the Lugo-Pisgah No. 1 and No. 2 Transmission Lines do not constitute a scenic landscape or cultural landscape.

As stated, construction of the Calcite Substation would result in removal of two existing 220 kV steel lattice towers (M169 T-1 and M169 T-2). These lattice towers are located on the SCE Lugo-Pisgah No. 1, a contributing element of the larger SCE First (No. 1), Second (No. 2), and Third (No. 3) Boulder Transmission Lines (P-36-014876/CA-SBR-13115H), which appears eligible for the NRHP/CRHR. Prior evaluations determined that these lines maintain a high-level integrity, although some minor elements have been altered/replaced over time (Dudek 2018). Although the resource was found eligible under NRHP/CRHR Criterion A/1 only, and not Criterion C/3 for its physical features, the removal of two transmission towers would not adversely affect the resource's NRHP eligibility. Although the project proposes to remove the two towers, they would be replaced with two new transmission structures in close proximity to the original tower locations. Because transmission lines require regular maintenance and repair in order to continue their function overtime, replacement of some equipment (e.g., small segments of line and transmission towers) is not necessarily impactful to the larger resource. As stated above, the significance of the Lugo-Pisgah No. 1 line is based on its electrical voltage technology, length of the span, connection to the Hoover Dam and conveyance of power between the Hoover Dam and the Los Angeles area. None of these key characteristics of significance would be impacted by removing and replacing the two steel lattice towers. Therefore, removal of the two transmission towers would result in a less than significant impact to historic properties.

By looping the existing Lugo-Pisgah No.1 220 kV transmission line into Calcite Substation, two new 220 kV transmission lines would be created. These new transmission lines would depart from the existing Lugo-Pisgah No. 1 line approximately 2,500 feet south of Calcite Substation, cross under SCE's Eldorado-Lugo and Lugo-Mohave 500 kV lines and enter Calcite Substation from the south. The loop-in would modify the Lugo-Pisgah No. 1 220 kV Transmission Line by creating two new line

segments: the Calcite-Lugo 220 kV and the Calcite-Pisgah 220 kV transmission lines. The new 220 kV lines would require approximately six transmission structures; four single-circuit structures and two double-circuit structures. The six new structures would require a new right-of-way ranging between approximately 100 and 200 feet wide (depending on structure types and line crossings) from SCE's existing right-of-way to the Calcite Substation.

While the proposed improvements would result in addition of two new transmission line segments directly north of the SCE Lugo-Pisgah No. 1 and No. 2 transmission lines (P-36-014876/ CA-SBR-13115H), the new lines and associated equipment would be differentiated from the original transmission lines as new construction. Further, the new work would consist of looping the existing Lugo-Pisgah into a new substation in close proximity and would not disrupt the larger important historical connections associated with the conveyance of power between the Hoover Dam and Los Angeles, as these connections would still remain visible. Although the proposed two new lines would cross under SCE's NRHP-eligible Eldorado-Lugo and Lugo-Mohave 500 kV lines, the new lines would not physically touch the existing lines or disrupt their existing tower spans.

Prior evaluations determined that the surrounding setting/scenic features of the Lugo-Pisgah No. 1 and No. 2 Transmission Lines are not considered contributing elements to the significance and NRHP eligibility of the lines, and therefore, construction immediately adjacent to the original lines would not pose a significant impact to the historical setting of the resource (Dudek 2018). Therefore, construction of the Calcite-Lugo 220 kV and the Calcite-Pisgah 220 kV transmission lines would result in a less than significant impact to historic properties.

Additionally, based upon the level of previous disturbance and the minimal number of artifacts noted at the site, there is a low potential for unknown historic resources or properties to be present, and therefore, there is a low potential to impact unknown historical sites. Therefore, impacts to unknown historic resources or properties would be less than significant.

Mitigation Measures: None required.

Level of Significance: Less than significant.

ARCHAEOLOGICAL RESOURCES

Impact 3.4-2 **The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Impacts would be less than significant with mitigation incorporated.**

Based on the level of previous disturbance and the minimal number of artifacts noted at the project site, as identified in Table 3.4-1, there is a low potential to impact unknown archaeological sites.

However, in the event that unknown buried archaeological resources are unearthed during project construction, implementation of mitigation measure **CUL-1** would mitigate any impacts to archaeological resources to a less than significant level.

Additionally, Site SBR-2145 was recorded in 1940 and was previously mapped at a location along the proposed telecommunication line alignment, approximately 2,000 feet south of the proposed Calcite Substation (Dudek 2018). The site was originally recorded as a pre-contact village site containing groundstone, flakes, and projectile points. However, the full extent of the mapped site was resurveyed in 2018 and no artifacts or features were identified (Dudek 2018). It was determined that the site was either destroyed since its original recordation or was incorrectly mapped. Through resurvey of Site SBR-2145, it was determined that the site is not located within the alignment of the proposed telecommunication line, and therefore, is not within the APE. Therefore, no impact to Site SBR-2145 would occur.

Additionally, Site ICF-CAL-1 (P-36-29900) is located along the proposed gen-tie alternative alignment. This site was originally recorded as an historic homesite with one rectangular building, one concrete retention basin, and multiple wood outbuildings (Dudek 2018). The site has not been formally evaluated. However, the proposed alignment of the gen-tie has been readjusted on the north side of the road and so that the poles to be installed would span the length of the site, thereby avoiding the disturbance of any potential resources. Therefore, no earthwork or pole installation would be performed within Site ICF-CAL-1 (P-36-29900). The site would be avoided by project construction, and no impact would occur.

Site ICF-CAL-2 (P-36-29901) is also located along the proposed gen-tie alternative alignment. This site was originally recorded as an historic refuse scatter adjacent to a dirt road. During a 2018 survey, it was determined that the site is likely the result of multiple dumping episodes related to the adjacent homesite recorded as ICF-CAL-1 (P-36-29900). The site was determined to be ineligible for listing in the CRHR and not significant under CEQA. As the site is not significant, potential impacts from construction of the gen-tie alternative would be less than significant.

Mitigation Measure:

Ord Mountain Solar Energy and Storage project and Calcite Substation project:

CUL-1 In the event that previously unknown archaeological resources (sites, features, or artifacts) are exposed during grading and/or construction activities for the proposed project, all work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist can evaluate the significance of the find and determine whether or not additional study is warranted, in consultation with the County. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant

under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Level of Significance: Less than significant with mitigation incorporated.

PALEONTOLOGICAL RESOURCE OR GEOLOGIC FEATURE

Impact 3.4-3 The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Impacts would be less than significant.

The proposed project site is mapped as younger alluvium overlying igneous and metamorphic bedrock (Dudek 2016). Younger alluvium has low paleontological resource sensitivity, while igneous and metamorphic bedrock has no paleontological resource sensitivity. Because the site is fairly level, grading is expected to be minor in most instances. As a result, any disturbance to paleontological resources or natural formations would be too small to be considered significant. Therefore, neither the proposed solar and energy storage project nor the Calcite Substation project would result in substantial adverse impacts to paleontological resources. Less than significant impacts would result from the proposed project and no mitigation is required.

Mitigation Measures: None required.

Level of Significance: Less than significant.

HUMAN REMAINS

Impact 3.4-4 The project would not disturb any human remains, including those interred outside of formal cemeteries. Impacts would be less than significant with implementation of mitigation.

The proposed project site is not located on a known cemetery, and no human remains are anticipated to be disturbed during the construction phase. However, procedures for consulting with Native American tribes as outlined in AB 52 have been completed. The project will be compliant with the requirements for treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097. Mitigation measure **CUL-2** would mitigate any impacts to human remains to less than significant.

Mitigation Measures:

Ord Mountain Solar Energy and Storage project and Calcite Substation project:

CUL-2 In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative will then determine, in consultation with the property owner, the disposition of the human remains.

Level of Significance: Less than significant with mitigation incorporated.

TRIBAL CULTURAL RESOURCES

Impact 3.4-5 The project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impacts would be less than significant with implementation of mitigation.

AB 52 has established a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to “begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project.” Section 21074 of AB 52 also tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe, and is either listed on, or eligible for, the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

In compliance with AB 52, the County of San Bernardino distributed letters on January 9, 2017, to applicable tribes that had previously requested to be notified of future projects proposed by the County, notifying each tribe of the opportunity to consult with the County regarding the proposed project, including the Morongo Band of Mission Indians, San Manuel Band of Mission Indians, Serrano Nation, and San Fernando Band of Mission Indians. Responses were received from the Morongo Band of Mission Indians and the San Manuel Band of Mission Indians; these tribes remain actively engaged with the project as it goes through the County application review and approval process. A collective total of 35 contacts have been made with the Morongo Band of Mission Indians and the San Manuel Band of Mission Indians by letters, emails, phone calls, and in-person meetings.

Due to the presence of prehistoric archaeological isolates within the project area and prehistoric archaeological sites in close proximity to the project area, combined with tribal cultural knowledge of the project area, the Morongo Band of Mission Indians and the San Manuel Band of Mission Indians believe the project area to be of moderate to high cultural sensitivity. As a result of this sensitivity, the tribes are concerned with potential impacts to possible subsurface cultural materials as a consequence of the proposed project. As subsurface investigations have not taken place within the project site to determine the presence of subsurface cultural materials, the project’s implementation will take place with both an archaeological monitor and Native American monitor present in accordance with the Tribal Cultural Resources Monitoring Discovery, Treatment and Disposition Plan established for the project.

Mitigation Measures:

CUL-3 A Tribal Cultural Resources Monitoring, Discovery, Treatment, and Disposition Plan (MDTDP) will be established, in consultation with all parties, prior to the commencement of any ground-disturbing activities. The MDTDP will allow for Native American monitoring of initial ground-disturbing activity, as well as the process for treatment and disposition of inadvertent discoveries of cultural

material(s). Inadvertent discoveries of human remains and/or funerary object(s) are subject to California Health and Safety Code Section 7050.5A.

Level of Significance: Less than significant with mitigation incorporated.

CUMULATIVE IMPACTS

Impact 3.4-6 The project would not result in cumulative impacts related to historical, archaeological, paleontological, or tribal cultural resources. Impacts would be less than significant with mitigation incorporated.

Cumulative projects that would have the potential to be considered in a cumulative context with the projects' incremental contribution, and that are included in the analysis of cumulative impacts relative to land use and planning, are identified in Table 3.0-1 and Exhibit 3-1 in Section 3.0 of this EIR.

Ongoing development and growth in the broader project area may result in a cumulatively significant impact to cultural resources and/or tribal cultural resources due to the continuing disturbance of undeveloped areas, which could potentially contain significant, buried archaeological, paleontological, or tribal cultural resources. However, the project would be constructed on a site that has been subject to previous ground-disturbing activities, which greatly limits the potential for buried, unrecorded cultural resources to underlie the project site. Nonetheless, because there is always a potential to encounter unrecorded archaeological, paleontological, and tribal cultural resources during construction activities, no matter the location or sensitivity of a particular site, mitigation measures **CUL-1** and **CUL-2** are required to protect, preserve, and maintain integrity and significance of cultural resources and/or tribal cultural resources, in the event of an unanticipated find of a significant resource.

As discussed above, the individual, project-level impacts associated with cultural resources were found to be less than significant with incorporation of mitigation measures, and the proposed project would be required by law to comply with all applicable federal, state, and local requirements related to historical, archaeological, paleontological, and tribal cultural resources. Other related cumulative projects would similarly be required to comply with all such requirements and regulations, to be consistent with the provisions set forth by CEQA, and to implement all feasible mitigation measures should a significant project-related and/or cumulative impact be identified.

Mitigation Measures:

Ord Mountain Solar Energy project and Calcite Substation project:

CUL-1, CUL-2, and CUL-3

Level of Significance: Less than significant with mitigation incorporated.