

5.7 CULTURAL RESOURCES

This section analyzes the potential effects the SES Solar Two, LLC (Solar Two or Applicant) Project and ancillary facilities (Project) may have on known or previously unrecorded cultural resources located within the Area of Potential Effect (APE).

Cultural resources include prehistoric resources; historic buildings, structures, objects, districts, and sites; and sites and resources of concern to Native American and other ethnic groups. The cultural resources assessment prepared for the Project includes a description of the Project area and affected environment; existing site conditions; a summary of the ethnography, prehistory, and history of the region; a review of site records for previously completed cultural resource investigations and recorded sites in the APEs and within a 1-mile study area; the results of the archaeological and historic architecture pedestrian surveys of the APE; and the Native American consultation. Complete documentation of the cultural resources assessment is appended in the archaeological survey report (Appendix Z, Cultural Resources Technical Report).

The results of this study indicate that the Project will have adverse effects to cultural resources eligible for the National Register of Historic Places (NRHP) and/or the California Register of Historic Resources (CRHR) within the APE. The NRHP and CRHR are lists of cultural resources worth of preservation on a national and state level, respectively. Appropriate mitigation measures for the NRHP-eligible resources affected by the Project will be detailed in a Historical Resources Treatment Plan referenced in Section 5.7.10, Mitigation Measures. There is also the possibility that further NRHP-eligible cultural resources could be discovered within the APE during construction phase of this Project. If so, appropriate mitigation measures (as set forth in Section 5.7.10) will be employed to ensure avoidance and/or proper treatment of cultural resources.

All cultural resources work for the Project was carried out under the direct supervision of an archaeologist who meets the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation Professional Qualification Standards (36 Code of Federal Regulations [CFR] Part 61, Appendix A). The cultural resources investigation was done in accordance with the Warren-Alquist State Energy Resources Conservation and Development Act (Public Resources Code, Section 25000 *et seq.*); *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification* (CEC 1992). *Regulations Pertaining to the Rules of Practice and Procedure and Power Plant Site Certification* (CEC 2007a); and *Rules of Practice and Procedure and Power Plant Site Regulations Revisions* (CEC 2007b). Also, this study was done in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000 *et seq.* and Title 14 of the California Code of Regulations, Chapter 3, Section 15000).

5.7.1 Affected Environment

5.7.1.1 Site Description

The Project description is provided in Section 3.0, Project Description and Location. Figure 5.7-1, Previous Archaeological Surveys, details the site description in relation to the Project.

5.7.1.2 Area of Potential Effects

The archaeological APE includes the Project area, and an additional 200 feet around the Project area. The delineation of the APE was done in accordance with the *Rules of Practice and Procedure and Power Plant Site Regulations Revisions*, Appendix B (g)(2)(C) (CEC 2007b).

5.7.1.3 Physiography

Section 5.3, Geologic Hazards and Resources, provides a detailed description of the physiography of the Project area.

Of particular note with respect to cultural resources is the fact that the Project Site is located on the western edge of the Salton Basin. At various times during prehistory, the basin filled with floodwaters from the Colorado River to form a large lake that is referred to as Lake Cahuilla. The insertion, expansion, and retreat of this large body of water in the midst of an arid region had profound consequences for the prehistoric occupation of the region (Schaefer and Laylander 2007).

5.7.1.4 Soils and Geology

Section 5.3, Geologic Hazards and Resources, and Section 5.4, Soils, provide detailed descriptions of regional geology and soil conditions, respectively.

5.7.1.5 Existing Conditions

The Project area is currently open desert and outside of the Plaster City factory area. On the north boundary of the Project area, there is no current economic use of the area. Off-highway vehicle usage within the area is presently restricted to the established Bureau of Land Management (BLM) roads, though there is ample evidence this practice was not followed in the past. Bone scatters of domestic animals show that the area may have been used for grazing in the past. Additionally, there is evidence of modern disturbance in portions of the Project area in the form of gravel and sand mining.

5.7.1.6 Prehistoric Context

The Project area is situated within the Colorado Desert in a region that has not had substantial archaeological investigations. As more extensive archaeological excavations are completed, Colorado Desert native cultures are likely to be similar to those of the Mojave Desert to the north, where archaeological research has been conducted more extensively. However, some differences from the Mojave Desert region are to be expected. The Colorado Desert lies at a lower latitude and is prone to different weather conditions, which could have affected the types and amount of plant and animal resources available to prehistoric peoples. Also, throughout the Holocene, the Colorado River inundated the Salton Sink and created Lake Cahuilla, which increased freshwater resources and created areas with a more fertile environment able to sustain larger populations (Weide 1976).

Malcolm Rogers conducted the most extensive archaeological survey and report of the Colorado Desert in the 1920s (Weide 1976). His theories on the periods for many of the sites he found are

uncertain because most of the cultural material is non-stratified surface remains and at that time the artifact chronology was in early stages of development (Rogers 1939). Several sites recorded have no artifact assemblage associated with them; they are merely cleared circles of about 6 feet in diameter and are sometimes defined by a low wall around the perimeter (Rogers 1939). These sites were interpreted by Rogers as “temporary bedding platforms” (Rogers 1939). These bedding platform features and other sites containing artifact assemblages of crude tools were the basis of Rogers’s suggestion that they were associated with a pre-projectile point culture (Pre-Paleoindian period) (Rogers 1939). The absence of dateable material makes this hypothesis inconclusive.

Aside from the disputed Pre-Paleoindian period, archaeological research in Southern California over the past century has resulted in the development of a temporal scheme for regional prehistory that is generally accepted by the archaeological community. The temporal periods include the Paleoindian period, 12,000 to 7,000 years before present (YBP); the Archaic period, beginning between 8,000 and 7,000 YBP; and (transitioning to) the Late Prehistoric period at approximately 3,000 YBP. Although specific dates are given, the beginning and end date for each period is not static because technological innovations occurred at different times within this region. For example, the introduction of the bow and arrow closely coincided with the introduction of pottery, but their introduction does not appear to have occurred simultaneously throughout the region (Moratto 1984).

Paleoindian Period “San Dieguito” (12,000 to 7,000 Years Before Present)

San Dieguito is the earliest established and dated period for the Colorado Desert region (Weide 1976). The start of the Paleoindian period is marked by increased rainfall and cooler temperatures that formed deep pluvial lakes and marshes even in interior desert regions and offered a multitude of subsistence options. Although temperatures warmed and the lakes began to recede around 11,000 YBP (Moratto 1984), the recession was so gradual that the pluvial lake environment was still in existence for several millennia, during which the San Dieguito people adopted living patterns in association with their environment. These cultural patterns composed the Western Pluvial Lakes Tradition, which included developing methods of procuring foods and materials based on the plants and animals that lived around the lakes (Moratto 1984). Marshes in particular offered a variety of plants with edible seeds, roots, and stems. This habitat provided frogs, turtles, fish, and water rats and attracted ducks and other waterfowl, which were good for meat and eggs. Sites located along the former shore of Lake Cahuilla reveal that these people had developed a flaked-stone industry with an extensive number of tool forms, including ovate bifaces, chipped stone crescents (called amulets by Rogers), drills, cleavers, pulping planes, and keeled scrapers (Rogers 1939). However, milling tools are conspicuously absent from these sites, implying that hard seeds were not included in the diet (Moratto 1984).

Archaic Period (7,000 to 3,000 Years Before Present)

With a dramatic increase in temperature and the evaporation of the pluvial lakes during the early Holocene, it is believed the population of the Colorado Desert dropped precipitously. Archaeological sites recorded to date are limited to small artifact scatters, and the dates for these sites are questionable because of poor chronological sequencing; the only good chronology to compare them with is from sites in the southern Mojave Desert. Excavations in the Mojave

Desert include several sites in the Pinto Basin Area; these excavations resulted in the discovery of the material culture ascribed to this period (Campbell and Campbell 1935). The Pinto Period is defined to have existed between 7,000 to 4,000 YBP (Moratto 1984). This period is marked by large numbers of Pinto-style points, which are moderately large triangular dart points with straight to expanding stems with marked basal notches that produce an eared or flared appearance, and the introduction of a small, flat variety of millingstone (Moratto 1984). A few Pinto-like points have been found in the Colorado Desert, such as one at the Split Mountain Sand Dune site. Because the stratum where the point was recovered was radiocarbon dated to 770 YBP, the point likely represents re-use by a later cultural group rather than presence of Pinto cultural group. Pinto points have also been recorded at sites located along relict terraces of ancient Lake Cahuilla, indicating the lake may have refilled temporarily during this period (Weide 1976). The presence of these sites, the Truckhaven Man burial (radiocarbon date of 5,840 YBP), and a quartz point of unspecified type from a stratum radiocarbon dated at 4,980 YBP (Weide 1976) suggest that the Colorado Desert region was not entirely unoccupied during the Archaic Period; people may have been present only on a seasonal basis because of lack of resources (Fagan 2003).

The evaporation of the lakes also caused a shift in flora to plants adapted to arid climates. The hard seeds of mesquite (*Prosopis juliflora*) and screwbean (*Prosopis pubescens*) and foods from other desert-adapted plants, such as various types of cactus and agaves, became staples of the Native American diet (Barker 1976). Groundstone tools, including manos, metates, mortars, and pestles, were developed to aid in the processing of these new foods, and are commonly found in artifact assemblages throughout the Mojave and Colorado Deserts (Moratto 1984). In addition to stone tools, people of the Colorado Desert may have made wooden milling utensils and other artifacts of organic materials that are usually not preserved in the archaeological record. Ethnographic records show use of wooden mortars and pestles, items such as hooked sticks for shaking mesquite pods down from trees, nets in which to collect cactus and then beat against the ground to remove the needles, digging sticks for excavating rodents from burrows or digging up plants, and throwing sticks for hunting hare and other small game (Barker 1976). These tool types likely persisted for millennia with little change in technology or style.

Late Prehistoric Period (3,000 Years Before Present to European Contact – Anno Domini 1769)

Between Anno Domini (AD) 500 and 800, the Colorado River shifted course, and by around AD 1050 refilled Lake Cahuilla. This refilled lake provided a stable year-round water supply in the Colorado Desert. People began to repopulate the Colorado Desert, some following the river on its route from the Colorado River Valley and some attracted from the Mojave Desert or the mountain ranges to the west (Moratto 1984; Weide 1976). Ceramic wares, which had been introduced centuries before in other areas, were brought into this region with the influx of people. Typical wares included Tizon Brown wares and, in smaller quantities, Lower Colorado Buff wares (Moratto 1984). The Lower Colorado Buff wares, in common use since AD 800, show new attributes around AD 1050 such as stucco finishes, recurved jar rims, and tab handles on scoops. These attributes aid archaeologists in dating sites that appear in the area (Moratto 1984).

Small arrow points, such as Cottonwood Triangular points, appearing around AD 900, and Desert Side-notched points, first appearing around AD 1100, replacing the larger dart point types

that marked earlier periods (Moratto 1984). These smaller points indicate the introduction of the bow and arrow and its replacement of the atlatl (Moratto 1984). These projectile point types are common throughout California during this period and into the historic period (Justice 2002).

People began to occupy permanent settlements and exploit different food sources at different times of the year because enough resources were present to provide year-round sustenance. Evidence for these settlements can be seen in coprolite analyses, which reveal the remains of plant and animal foods available during different seasons (Moratto 1984). Trade networks with people living near the coast also likely developed during this time. This conclusion is suggested by the first appearance of shell beads and shell ornaments in the artifact assemblages (Moratto 1984).

Around AD 1450, the Colorado River's course shifted eastward, and native peoples were confined to an ever decreasing fertile area as Lake Cahuilla gradually dried up (Moratto 1984). As the lake receded, surrounding areas experienced an increase in occupation as the population shifted to more abundant lands, such as the Colorado River Valley and mountains to the west of the Salton Trough (Weide 1976; Moratto 1984). People persevered in this desert environment, as evidenced in a series of stone-lined fish traps marking the progress of the receding waterline (Moratto 1984). As subsistence resources disappeared along with the lake, people also attempted to rely on limited agriculture. Evidence of water control techniques, such as the use of wells and springs for irrigation and the construction of reservoirs and ditches, is apparent (Weide 1976). Tizon Brown wares still compose a majority of the ceramic wares used, though Lower Colorado Buff wares significantly increase during this period (Moratto 1984). Desert Side-notched and Cottonwood Triangular points remain common point types throughout the Late Prehistoric Period (Moratto 1984).

Materials used in projectile point production include chalcedony, chert, quartzite, quartz, fine grained basalt, Andesite, and obsidian. Isotropic materials such as obsidian were preferred sources for projectile points and the receding shoreline of Lake Cahuilla exposed an ideal obsidian source, Obsidian Butte; the butte is located between 131 feet to 230 feet below sea level at the southern end of the Salton Sea. This lithic source was exposed intermittently during the Late Prehistoric Period and subsequently exploited for use in flaked stone tool manufacture. When available, obsidian was collected, used locally, and traded or carried west to coastal Southern California. Obsidian hydration dates for the source range from A.D. 1200 to 1800 (Laylander 1997).

5.7.2 Ethnography

Kroeber's 1925 inventory of California Indian groups found that the Salton Trough was occupied at least intermittently by the Kamia (Heizer 1966), a band that has been more recently linked to the Ipai and Tipai tribes. Although the bands did not recognize a native tribal name, they were grouped together based on their linguistic similarities. The bands shared the Tipai language, classified in the Yuman language family, Hokan stock (Luomala 1978). Together, the Ipai and Tipai ranged from the Colorado Desert to the coast, and along the coast from Agua Hedionda past the Todos Santos Bay (Luomala 1978). The Tipai were thought to have lived along the coast and in the mountains for millennia before migrating east into the Mojave Desert and south along the Colorado River around 1,000 AD; eventually Tipai people moved further into the

Colorado Desert, including around Lake Cahuilla (Luomala 1978). As Lake Cahuilla receded, some Tipai migrated back to the mountains and others relocated to the banks of the New and the Alamo Rivers.

The Kamia band occupied a small area of the Ipai/Tipai area and was found primarily in Imperial Valley (Gifford 1931). Heintzelman recorded a population of 254 Kamia living along the banks of the New River in 1849 (Barker 1976). The Southern Diegueño, another band of the Tipai, occupied the peninsular ranges to the west of the Colorado Desert and the Kamia kept in close contact with this group, though they spoke different dialects and had different social structures and subsistence collection methods (Barker 1976). The Kamia would frequently exchange agricultural produce with their Southern Diegueño neighbors for gathered food staples abundant at higher elevations, such as acorns, dried cakes of mescal, and piñon nuts (Gifford 1931; Barker 1976). Interaction between the Kamia and the Southern Diegueño was so extensive that Gifford had difficulty defining a territorial boundary between the two (Gifford 1931).

The Kamia apparently also had strong relationships with another group of Yuman speakers, the Quechan tribe to the east, who occupied the Colorado River Valley (Luomala 1978). The two tribes were so familiar with each other that it was reported in 1849 that the “Grand Chief of the Cuchans” (Quechan) was a Kamia and born in a New River settlement (Gifford 1931). The two tribes shared many traits, including the practice of agriculture, and frequently were allied in battle (Gifford 1931). As with the Southern Diegueño, friendly relations made territorial boundaries between the Quechan and the Kamia difficult to ascertain, and Gifford even records Kamia living in Quechan territory, on the west bank of the Colorado River (Gifford 1931).

Some overlapping of territory may also have occurred with the Cahuilla, whose boundaries lay close to the north, extending from the Salton Sink up to the San Bernardino Mountains (Bean 1978). No record of interaction with the Kamia exists; the Cahuilla preferred to trade and intermarry among tribes more closely related to their own language and culture, such as the Gabrielino, found along the coast near present-day Los Angeles (Bean 1978). Their language belongs to the Cupan subgroup of the Takic family of Uto-Aztecan stock (Bean 1978). Because the environment of the Cahuilla was similar to that of the Kamia, subsistence tactics were essentially the same, though the Cahuilla relied less on agriculture (Bean 1978).

Although European contact with the Tipai occurred with the arrival of the Spanish in 1540 (Luomala 1978), the inland band of Kamia may not have encountered colonists until 1769. It was at this time that the Spanish took an interest in inland routes and Gaspar de Portola, governor of the Spanish territory Las Californias, led an expedition through Mexico and across the Colorado Desert region to San Diego (Chartkoff and Chartkoff 1984). Still, even before this, the effects of the contact on the coast rippled through Native settlements, resulting in population drops even among the interior tribes due the introduction of new European pathogens (Cook 1978).

The Kamia band of Tipai were a semi-sedentary people who, in contrast with the rest of the Tipai, practiced horticulture during summer months, after the floods of the Colorado River had peaked (Luomala 1978; Barker 1976). Crops such as maize (*Zea mays*), tepary beans (*Phaseolus acutifolius* var. *latifolius*), and several species of gourds and melons were grown, as were cowpeas (*Vigna sinensis*), which had been introduced by the Spanish (Barker 1976). Irrigation canals were typically not used in most areas, with the exception of the Jacumba Valley, but occasionally sloughs were dammed to thoroughly soak an area before planting (Gifford 1931).

Agricultural practices were supplemented by gathering wild plant foods, with a particular reliance on mesquite and screwbean (Barker 1976). They also practiced hunting rabbits, deer, sheep, and small mammals, and fishing in sloughs around the New River (Barker 1976).

The last Kamia chief died in 1905 and was not replaced because the population was too scattered (Barker 1976). As a result, the entire Kamia social system suffered a breakdown, though Kamia individuals were still living. Kamia descendants may have survived this breakdown, but currently no longer show any cultural distinction from the other Tipai bands.

5.7.3 Regional Historic Context

5.7.3.1 *Spanish Period (1540 to 1821)*

The northern Sonoran Desert was rarely visited by Europeans until the intensive settlement of the twentieth century because of the desert's remoteness and dry, nearly waterless environment. One early European explorer of the region was Hernando de Alarcon, believed to be the first Spanish explorer to see the Colorado River in the 1540s. Spanish explorers would visit the desert region several hundred years later as they attempted to locate a more direct travel route between their older and well-established missions in Sonora and New Mexico and the missions of San Diego, San Gabriel, and Monterey. The latter missions were all located along coastal Alta California (northern California) and were on the frontier with Russian fur trappers who were moving south along the Pacific coast. Thus, as Weber (1992) points out, "the success or failure of New California as a bastion against Russian expansion seemed to depend on the rapid delivery of reinforcements, food, and supplies."

Spanish officials and clerics in California made many attempts during the mid-eighteenth century to establish a reliable supply network. Antonio María de Bucareli, at the urging of Father Junípero Serra, enlisted the aid of the Sonoran frontier officer Captain Juan Bautista de Anza in 1773 to find an appropriate overland route from Sonora to San Diego and on to Monterey. Along with the overland route, a sea venture was also formulated with the effect that both the sea and land routes would send a message to the Russians that Alta California belonged to Spain. Anza acquired the assistance of a small group of soldiers and two Franciscan friars, the most notable being Francisco Garcés, who made the trip through the lower Colorado Desert several times. The Anza-Garcés journey began in 1774 at the mission in Tubac, south of present day Tucson, Arizona. It proceeded south to Altar in the state of Sonora, Mexico, and one month later arrived at the junction of the Gila and Colorado Rivers. By early 1774, the Anza-Garcés expedition crossed the Sonoran Desert, encountered the Yuman Indians along the Colorado, crossed the San Jacinto Mountains, and reached the San Gabriel Mission (Weber 1992).

In 1781, José de Gálvez ordered the construction of two outposts along the Colorado River to further secure the overland travel route between Sonora and the California coast: Purísima Concepción, near present-day Yuma, and San Pedro y San Pablo de Bicuñer, near present-day Laguna Dam (Weber 1992). Although Father Garcés was the leading priest for the villages, Teodoro de Croix became the first Comandancia General de Provincias Internas in 1777 (Texas State Historical Association 2001). In effect, de Croix was the commandant for the interior provinces of Mexico and was the person responsible for ensuring the success of the enterprise of the two newly established villages along the Colorado.

Four years after the creation of the villages, the Yuma Indians, because of the ill treatment caused to them by the Spanish, attacked the villages, killing Father Garcés along with many of the settlers. In 1782, Pedro Fages argued for an increased force to defend against Russian encroachment and to quell Indian uprisings. Although Fages rescued several of the remaining Spanish captives in Yuman custody and managed to inflict heavy damage on the Yuman villages, no peace accords were established between the Yuma Indians and the Spanish. By the close of the eighteenth century, New Mexico still did not have a reliable overland route to their settlements along the Pacific coast of Alta California and was forced to rely on sea ventures to supply these settlements (Weber 1992).

5.7.3.2 Mexican Period (1821 to 1848)

The downfall of Spain as a colonial imperialist in the New World likely had its most dramatic beginnings in 1810. The downfall occurred when a group of Anglo-Americans rebelled against the Spanish-controlled government in West Florida and captured the town of Baton Rouge on behalf of the United States government. Because of its domestic problems in the wake of the Napoleonic Wars, Spain could do little to provide economic assistance to its overseas ventures and in 1819 signed a peace accord, the Adams-Onís Treaty, which gave East Florida to the United States and in effect de facto control of West Florida to the United States. Texas, a heavily contested region, was to remain under Spanish control.

In 1821, just 2 years after the signing of the Adams-Onís Treaty, Agustín de Iturbide led a successful coup over the Spanish colonial government in Mexico City. Iturbide was an officer in the Spanish military in New Spain who became disenchanted with the current Spanish government. In 1820, he was assigned to suppress an anti-colonial uprising, but instead Iturbide led the coup. In February 1821, Iturbide issued the “Plan of Iguala,” which laid the framework for Mexican independence from Spain. By August of 1821, the Spanish government signed the Treaty of Córdoba, which recognized the change of government to Iturbide’s insurrection. Soon afterward, in 1822, Iturbide declared himself Agustín I, emperor of New Spain. Because of his despotism, Antonio López de Santa Anna led a successful coup that deposed Iturbide in 1824. However, Iturbide had left a dangerous legacy for Mexico. In 1822, Iturbide permitted Stephen Austin and a small group of Anglo-Americans to construct a settlement inside the border of Texas, more likely as an act of appeasement to limit the increasingly frequent border disputes. This act, however, only furthered the cause of the Anglo-Americans to take control of the southwest.

Few, if any, development activities were conducted in the northern territories of Mexico during this period. The Sonoran Desert was nearly forgotten and only referenced as Indian (Yuman) horse thieves were chased through the desert. In 1826 and 1827, Romualdo Pacheco, who would become the first California-born governor of the State of California and was sub-Lieutenant, Engineer officer, and aide-de-camp to the governor of Mexican California, made several exploratory expeditions through the region (Stott 1950). In 1831, a group of Anglo-American traders departed St. Louis, headed for Santa Fe, traveled through the Sonoran Desert, and ended in San Diego. One person of note in this trip was Jonathan Trumbull Warner of Connecticut, who was a clerk on the expedition (Stott 1950). Warner later acquired San Jose Valley in San Diego County. The valley became known as “Warner’s Ranch,” the name it retains to this day.

5.7.3.3 *American Period (1848–Present)*

The Anglo-American colonies established in Texas in the 1820s eventually rebelled and gained their independence from Mexico in the Texas War of Independence in 1836. The newly established Republic of Texas maintained its independence until 1845, when it petitioned for annexation to the United States.

When this annexation was completed in 1845, during the presidency of James K. Polk, the stage was set for war between an outraged Mexico and the United States. Border tensions escalated and the result was war and an invasion of Mexico by the United States in 1846. That year, President Polk enlisted the aid of Mormon volunteers to form a battalion and advance on the Mexican army in California. The Mormons already had a large population in the west, particularly in Salt Lake City, Utah, area. By June 1846, Colonel Stephen W. Kearney, commander of the western army, with the assistance of Mormon leader Brigham Young, recruited 314 Mormon soldiers (Vurtinus 1979). By the fall of 1846, the battalion moved through the southwest toward California and reached San Diego on 29 January 1847. In the process, the western army, with the aid of the Mormon battalion, established garrisons in San Diego, Los Angeles, the mission of San Luis Rey and established a battery in Cajon Pass, San Bernardino County (Vurtinus 1979).

By 1848, the United States had prevailed over the Mexican army, and the Treaty of Guadalupe Hidalgo ended the war. By the terms of the treaty, the United States acquired all Mexican territory north and west of the Rio Grande and Gila rivers, including Texas, New Mexico territory, and Alta California. In the same year, Anglo-Americans discovered gold in the mountains of California, and the resulting gold rush brought a huge influx of Anglo-American settlement. This transformed California from a Hispanic backwoods frontier to the new Anglo-American “Golden State” that was admitted to the Union as the thirty-first state in 1850.

The settlement of the Imperial Valley owes much of its early history to Dr. Oliver M. Wozencraft. In 1849, Wozencraft, on his way to gold fields near San Bernardino from New Orleans, traveled through the Imperial Valley and noted the soil fertility and potential for arability. He was likely the first person to recognize the valley’s potential for agriculture, and he noted that because the Colorado River was much higher than the valley, it would be feasible to irrigate using a gravity canal from the Colorado River (Garnholz 1991).

Wozencraft’s opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, Secretary of the U.S. War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition led by Lieutenant R. S. Williamson and William Phipps Blake, professor of Yale College, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically wrote, “It is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake” (Garnholz 1991). Blake’s expedition in the Salton Sink was the most scientific of its time and included soil scientists, geologists, geographers, and paleontologists to name a few. It was Blake’s expedition that first scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River flooded the valley several times: specifically, in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991).

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly 10 million square acres (essentially the entire present-day Imperial County and parts of Riverside County). However, the federal government retained title to the land in this region of California, and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the “Imperial Valley was to [sic] hot for white men to prosper” (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft left California for Washington, D.C., to lobby Congress. He died several years later without ever convincing Congress and never saw his dream fulfilled. Although Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

Between 1893 and 1894, the Colorado Irrigation Company, under the direction of Chief Engineer Charles R. Rockwood, followed Wozencraft’s earlier attempts to irrigate the Imperial Valley. Originally known as the “Valley of the Dead,” understandable considering that it receives less than 3 inches of rainfall per year, Charles Rockwood renamed it “Imperial Valley” as part of his grand vision of channelizing the Colorado through thousands of miles of canal lines, with the net effect of irrigating hundreds of thousands of acres of land in the Sonoran Desert (Reisner 1986). Teaming with George Chaffey, head of the California Development Company (CDC), Rockwood, who became the chief engineer of the company in 1901, continued on the plans established by Wozencraft in the mid-nineteenth century to have a canal, referred to as the “main channel,” constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development—the canal was to be developed almost entirely on the south side of the border, which, because it was conducted by a foreign agency, was prohibited by Mexican law—established a subsidiary to the CDC, the Sociedad de Irrigación y Terrenos de la Baja California (Smith 1979). By 1901, the Imperial Valley was irrigated and attracted many new settlers and farmers from the Midwest. In 1907, Imperial County was established from the western portions of San Diego County.

George Chaffey replaced Charles Rockwood at the Colorado Irrigation Company because of his experience in working on canal projects and deep financial interests in seeing the development of the southwest. One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, though supposedly temporary, structure referred to as the “Chaffey Gate” (Sperry 1975; Tout 1932). The year the gate was constructed, 1904, was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry, causing the canals’ water level to drop, which precipitated the construction of more diversion and gates around the Chaffey Gate. However, 1905 was extremely wet. Several flooding episodes

occurred, with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of California, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

The Southern Pacific Railroad Company threatened a lawsuit against the company for flooding their railroad line along the Salton Sink. A year later, the company reorganized and the board was taken over by men associated with Southern Pacific, including Epes Randolph, who was the assistant to the president of Southern Pacific and became president of the Development Company (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that Southern Pacific eventually ended its association with the Development Company. However, Southern Pacific did request over \$3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them \$1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam allowed for more effective control of the Colorado River for irrigation purposes.

At about the same time that Rockwood and Chaffey were devising plans to irrigate the Imperial Valley, W.F. Holt was developing an idea to introduce electricity to the region through hydroelectric power. Holt formed the Holton Power Company in 1903 with the purpose of constructing a 40-foot drop on the Alamo River. By 1916, the Holton Power Company was successfully producing enough energy to supply the needs of the entire Imperial Valley. Soon after, the Nevada-California Electric Company acquired the Holton Power Company; however, Nevada-California had problems in producing enough reliable electricity to the expanding agricultural economy of the valley and electricity rates to produce the power needed were becoming too high for the average farmer.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the defunct CDC, and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 2006). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the act and the dam provided immediate hydroelectric power to the valley. The act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID to use the hydroelectric power from the canal system to repay the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 2006). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941.

5.7.4 Key Personnel Qualifications

The key cultural resources personnel who conducted and/or supervised the field survey and prepared the technical report (Appendix Z, Cultural Resources Technical Report) and this Application for Certification section are as follows:

- Reid Farmer, MA, RPA (URS) Principal Investigator for this Project,
- Elizabeth Roberts, MA (URS Archaeologist),
- Rachael Nixon, MA (URS Archaeologist),

- Joshua McNutt, MA (URS Archaeologist),
- Dustin Kay, BS (URS Archaeologist),
- Gordon Tucker, PhD, RPA (URS Archaeologist),
- Juston Fariello, BA (URS Archaeologist),
- Sarah Mattiussi, BA (URS Archaeologist),
- Joshua Peabody, MA (URS Archaeologist),
- Jeffrey Reid, BA (URS Archaeologist),
- Jeremy Hollins, MA (URS Architectural Historian), and
- Leroy Laurie, BA (URS Archaeologist).

Mr. Farmer meets the professional standards of the Secretary of Interior Standards and the *Guidelines for Archaeology and Historic Preservation* (National Parks Service 1983). Appendix Z, Cultural Resources Technical Report, contains the resumes of the key personnel.

5.7.5 Site Records and Literature Review

On 16 January 2007, Matthew Armstrong, URS Archaeologist, requested a records search from the Southeast Information Center (SIC) at the Imperial Valley College Desert Museum from the California Historical Resource Information System cultural resources database. A second records search was conducted by Elizabeth Roberts, URS Archaeologist, on 26 and 27 February 2008 at the SIC to cover the area of the proposed transmission line, which had not been identified at the time of the initial records search.

The SIC searched all relevant previously recorded cultural resources and previous investigations completed for the Project area and a 1-mile search radius (Appendix Z, Cultural Resources Technical Report). Information reviewed included location maps for all previously recorded trinomial and primary prehistoric and historical archaeological sites and isolates; site record forms and updates for all cultural resources previously identified; previous investigation boundaries; and National Archaeological Database citations for associated reports, historical maps, and historical addresses. Copies of site records, maps depicting previously recorded sites and surveys, and technical reports for investigations within a quarter mile of the Project area are included in Appendix Z.

The records searches identified 25 cultural resources investigations conducted within 1 mile of the Project area. No cultural resources investigations have been conducted within the Project area. These investigations are listed in Table 5.7-1, Previous Surveys in or Near Project Area, and their locations are shown on Figure 5.7-1, Previous Archaeological Surveys.

**Table 5.7-1
Previous Surveys in or Near Project Area**

| Project | Report |
|---------------------------------------------------------|--------------------------------------|
| Within Project Area | |
| Jade to Sand Hills Transmission Line | Walker (1981) |
| La Rosita 230 kV Interconnection | Schaefer (1981) |
| Mountain Springs to Sand Hills 500 kV Transmission Line | Shackley (1982) |
| Petty Rey Geophysical Transects | Von Werlhof (1983) |
| Southwest Powerlink Transmission Line | Townsend (1984) |
| Southwest Powerlink Transmission Line | Shackley (1983) |
| Southwest Powerlink Transmission Line | Shackley (1984) |
| Desert Material Sites: West Imperial County | Caltrans (1989) |
| Outside Project Area | |
| Hunter's Alien Waters | BLM (2001) |
| Rio-Tel Communications Site | BLM (2001) |
| Clear Talk Cellular Site | AEI Consultants (2005) |
| Mt. Signal and Dixie Ranch Prison Alternatives | Pignolo et al. (1990) |
| Yuha Rehab 1 | BLM (2003) |
| American Tower Corporation Cell Site CA7 | American Tower Corporation (2000) |
| Phase One Cellular Phone Tower | Barros (2000) |
| AT&T Wireless Service Facility IM004 | Duke (2002) |
| Archaeological Survey of Yuha Basin | Von Werlhof and Von Werlhof (1977) |
| BLM Asset Management Parcels | Welch (1983) |
| Surveys of 547 Acres – BLM | Schaefer (1985) |
| Alamosa PCS Site #82502-020 | Environmental Biologists Inc. (2000) |

Source: URS Corporation, 2008a.

Notes:

BLM = Bureau of Land Management
 Caltrans = California Department of Transportation
 kV = kilovolt
 PCS = Personal Communications System

The records searches identified 106 cultural resources located within the Project APE and 209 cultural resources located within 1 mile of the Project APE boundary. These investigations are listed in Table 5.7-2, Previously Recorded Cultural Resources Within 1 Mile of the Project Area, and their locations are included in Appendix Z, Cultural Resources Technical Report.

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|-----------------------------------------|-----------------------------------------------------------------|-----------------|------------------|
| Sites Located Within Project APE | | | |
| CA-IMP-7834 | Westside Main Canal | 40 mi | Unevaluated |
| CA-IMP-5204 | temporary campsite | 170 m x 30 m | Unevaluated |
| CA-IMP-5198 | low-density lithic scatter | 50 m x 25 m | Unevaluated |
| CA-IMP-5197 | low-density scatter of andesite flakes, sherds, and burnt bone. | 50 m x 25 m | Unevaluated |
| CA-IMP-4677 | lithic and pottery scatter | 2 acres (area) | Unevaluated |
| CA-IMP-2074 | lithic scatter; probably San Dieguito site | 1,001 m x 5 m | Unevaluated |
| CA-IMP-1413 | pottery and lithic scatters | 1,700 m x 250 m | Unevaluated |
| CA-IMP-1009 | 05e: lithic scatter | 600 m x 400 m | Unevaluated |
| CA-IMP-2198 | lithic station | 2 m x 2 m | Unevaluated |
| CA-IMP-2197 | lithic station | 2 m x 2 m | Unevaluated |
| CA-IMP-2196 | lithic station and worked tools | 30 m x 30 m | Unevaluated |
| CA-IMP-2195 | flaking station | 2 m x 2 m | Unevaluated |
| CA-IMP-2194 | flaking station | 2 m x 2 m | Unevaluated |
| CA-IMP-2193 | flaking station | 2 m x 2 m | Unevaluated |
| CA-IMP-2190 | lithic work | 3 m x 3 m | Unevaluated |
| CA-IMP-2189 | lithic work and cairn | 30 m x 30 m | Unevaluated |
| CA-IMP-2185 | lithic tool and trail | 1 m x 1 m | Unevaluated |
| CA-IMP-2183 | lithic assemblage | 1 m x 1 m | Unevaluated |
| CA-IMP-2182 | lithic tools and trail | 1 m x 1 m | Unevaluated |
| CA-IMP-2181 | lithic tool, ovoid scraper (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-2180 | trail | 15 m x 1 m | Unevaluated |
| CA-IMP-2179 | lithic work, fist chopper | 11 m x 1 m | Unevaluated |
| CA-IMP-2178 | lithic work, chopper core, domed scraper plane | 50 m x 10 m | Unevaluated |
| CA-IMP-2156 | lithic flakes | 1 m x 1 m | Unevaluated |
| CA-IMP-2157 | lithic tools | 2 m x 2 m | Unevaluated |
| CA-IMP-2158 | lithic flakes and hammerstone | 1 m x 1 m | Unevaluated |
| CA-IMP-2176 | lithic tools | 1 m x 1 m | Unevaluated |
| CA-IMP-2177 | lithic work and sleeping circles | 30 m x 10 m | Unevaluated |
| CA-IMP-2154 | lithic, core, and flakes | 1 m x 1 m | Unevaluated |
| CA-IMP-2149 | lithic flakes | 1 m x 1 m | Unevaluated |
| CA-IMP-2147 | lithic chips and hammerstone | 2 m x 2 m | Unevaluated |
| CA-IMP-2122 | lithic scatter with tools | 5 m x 5 m | Unevaluated |
| CA-IMP-2107 | sleeping circle | 2 m x 2 m | Unevaluated |
| CA-IMP-2106 | lithic shop with tool | 10 m x 10 m | Unevaluated |
| CA-IMP-2105 | lithic station | 5 m x 5 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|-----------------------------------------------------------------------|---------------------------|-------------------------|
| CA-IMP-2100 | random tools | 10 m x 10 m | Unevaluated |
| CA-IMP-2097 | lithic | 30 m x 5 m | Unevaluated |
| CA-IMP-2096 | lithic site | 15 m x 5 m | Unevaluated |
| CA-IMP-2095 | chipping station | 5 m x 5 m | Unevaluated |
| CA-IMP-2089 | lithic tools | 5 m x 5 m | Unevaluated |
| CA-IMP-2088 | lithic site | 15 m x 15 m | Unevaluated |
| CA-IMP-2087 | chipping station | 10 m x 10 m | Unevaluated |
| CA-IMP-2086 | lithic | 15 m x 30 m | Unevaluated |
| CA-IMP-2085 | tools | 5 m x 5 m | Unevaluated |
| CA-IMP-2094 | lithic tools | 30 m x 30 m | Unevaluated |
| CA-IMP-2093 | chipping station | 30 m x 5 m | Unevaluated |
| CA-IMP-2092 | lithic tools | 30 m x 10 m | Unevaluated |
| CA-IMP-4578 | 05e: chipping circle | 2 m x 2 m | Unevaluated |
| CA-IMP-4577 | 05b; lithic scatter | 60 m x 40 m | Unevaluated |
| CA-IMP-4548 | 05b; lithic scatter, flakes | 70 m x 100 m | Unevaluated |
| CA-IMP-4546 | 16; 3 Felsite flakes | 5 m x 5 m | Unevaluated |
| CA-IMP-4544 | 16; 3 Felsite flakes | 1 m x 1 m | Unevaluated |
| CA-IMP-4541 | 05e; lithic scatter, chipping circle | 0.5 m x 1 m | Unevaluated |
| CA-IMP-4540 | 02; temporary campsite, lithic scatter | 100 m x 400 m | Unevaluated |
| CA-IMP-4470 | 07; pot drop | 20 m x 10 m | Unevaluated |
| CA-IMP-4469 | 02; temporary campsite, 2 pot drops, lithic scatter | 20 m x 15 m | Unevaluated |
| CA-IMP-4390-H | rusted tin cans, buckets, broken glass, cow bone, and pieces of metal | 5 m x 5 m | Unevaluated |
| CA-IMP-4381 | geoglyph and hearths | 30 m x 30 m | Unevaluated |
| CA-IMP-4380 | trail and lithic shop | 91 m x 91 m | Unevaluated |
| CA-IMP-4348 | temporary campsite/village | multiple dimensions given | Unevaluated |
| CA-IMP-4344 | lithic scatter; possible temporary campsite | 160 m x 340 m | Unevaluated |
| CA-IMP-4343 | temporary campsite | 80 m x 50 m | Unevaluated |
| CA-IMP-4342 | lithic (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-4341 | chipping circle | 1 m x 1 m | Unevaluated |
| CA-IMP-4340 | lithic (isolate) | 0.5 m x 0.5 m | Unevaluated |
| CA-IMP-4339 | isolated locale | 1 m x 1 m | Unevaluated |
| CA-IMP-4338 | chipping station | 2 m x 1 m | Unevaluated |
| CA-IMP-4337 | lithic (isolate) | 0.5 m x 0.5 m | Unevaluated |
| CA-IMP-4237 | temporary campsite | 800 m x 800 m | Unevaluated |
| CA-IMP-4193-H | historic trash dump | 2 m x 2 m | Unevaluated |
| CA-IMP-4192 | lithic (isolate) | 0.5 m x 0.5 m | Unevaluated |
| CA-IMP-4191 | lithic scatter | 0 to 10 sq m | Unevaluated |
| CA-IMP-4190 | lithic scatter | 6 m x 8 m | Unevaluated |
| CA-IMP-4189 | temporary campsite | 100 m x 50 m | Unevaluated |
| CA-IMP-3786 | flake (isolate) | 0.5 m x 0.5 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------------------------------|---------------------------------------------------|------------------------|-------------------------|
| CA-IMP-3785 | lithic scatter | 2 m x 2 m | Unevaluated |
| CA-IMP-3784 | chopper (isolate) | --- | Unevaluated |
| CA-IMP-3779 | lithics, core and flake | 0.2 m x 0.2 m | Unevaluated |
| CA-IMP-3778 | chopper (isolate) | 13 cm x 10 cm x 4.5 cm | Unevaluated |
| CA-IMP-3777 | core (isolate) | --- | Unevaluated |
| CA-IMP-3776 | discoid scraper (isolate) | --- | Unevaluated |
| CA-IMP-3775 | lithics, flake and scraper | 1 m x 1 m | Unevaluated |
| CA-IMP-3774 | lithics, 2 cores | 1 m x 1 m | Unevaluated |
| CA-IMP-3773 | lithic scatter with tools | 20 m x 15 m | Unevaluated |
| CA-IMP-3772 | lithic scatter with tools | 15 m x 15 m | Unevaluated |
| CA-IMP-3771 | lithic scatter with tools | 60 m x 60 m | Unevaluated |
| CA-IMP-3770 | single flake (isolate) | NA | Unevaluated |
| CA-IMP-3769 | lithic scatter with tools | 0.5 m x 0.5 m | Unevaluated |
| CA-IMP-3768 | lithic scatter with 2 loci | 25 m x 45 m | Unevaluated |
| CA-IMP-3767 | single flake (isolate) | --- | Unevaluated |
| CA-IMP-3766 | pottery scatter with lithics | 10 m x 0.8 m | Unevaluated |
| CA-IMP-3765 | lithic scatter | 20 m x 10 m | Unevaluated |
| CA-IMP-2764 | lithic scatter with tools | 40 m x 15 m | Unevaluated |
| CA-IMP-3763 | lithic scatter with tools | 30 m x 20 m | Unevaluated |
| CA-IMP-3762 | lithic scatter and trail segment | 30 m x 0.3 m | Unevaluated |
| CA-IMP-3761-H | historic trash dump with 2 loci | 15 m x 20 m | Unevaluated |
| CA-IMP-3760 | lithic scatter with 4 loci | 60 m x 60 m | Unevaluated |
| CA-IMP-3759 | lithic scatter with tools | 50 m x 50 m | Unevaluated |
| CA-IMP-3758 | lithic scatter with tools | 130 m x 60 m | Unevaluated |
| CA-IMP-3757 | lithic scatter with tools | 11 m x 3 m | Unevaluated |
| CA-IMP-3756 | lithic scatter | 1 m x 1 m | Unevaluated |
| CA-IMP-3755 | lithic scatter | 3 m x 3 m | Unevaluated |
| CA-IMP-3754 | lithic scatter with 2 loci | 5 m x 10 m | Unevaluated |
| CA-IMP-3753 | isolate (bifacial scraper) | --- | Unevaluated |
| CA-IMP-3752 | lithic scatter with 4 loci | 25 m x 30 m | Unevaluated |
| AC-IMP-3751 | lithic scatter | 1 m x 1 m | Unevaluated |
| Sites Located Outside Project APE | | | |
| CA-IMP-3750 | chipping station | 3 m x 3 m | Unevaluated |
| CA-IMP-3748 | isolate (hammerstone) | 10 cm x 8 cm x 6 cm | Unevaluated |
| CA-IMP-3747 | single potsherd (isolate) | --- | Unevaluated |
| CA-IMP-3745 | lithic scatter | 5 m x 5 m | Unevaluated |
| CA-IMP-3505-H | military occupation (heavy) mounts, cairns, trail | 402.3 m (length) | Unevaluated |
| CA-IMP-3401-H | cross wagon road | --- | Unevaluated |
| CA-IMP-954 | sleeping circle | 450 cm x 450 cm | Unevaluated |
| CA-IMP-953 | sleeping circle | 400 cm x 300 cm | Unevaluated |
| CA-IMP-952 | sleeping circle | 600 cm x 400 cm | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|-------------------------------------------------------------------------|--------------------------------|-------------------------|
| CA-IMP-951 | sleeping circle | 350 cm x 370 cm | Unevaluated |
| CA-IMP-950 | sleeping circle | 400 cm x 360 cm | Unevaluated |
| CA-IMP-949 | sleeping circle | 470 cm x 400 cm | Unevaluated |
| CA-IMP-948 | sleeping circle | 350 cm x 340 cm | Unevaluated |
| CA-IMP-947 | sleeping circle | 400 cm x 280 cm | Unevaluated |
| CA-IMP-946 | lithic shop, Malpais | 2 m x 2 m | Unevaluated |
| CA-IMP-945 | small lithic shop, Malpais | 2 m x 2 m | Unevaluated |
| CA-IMP-944 | lithic shop, Malpais | 10 m (area) | Unevaluated |
| CA-IMP-943 | lithic shop, Malpais | 5 m x 6 m | Unevaluated |
| CA-IMP-942 | lithic shop, Malpais | 3 m x 3 m | Unevaluated |
| CA-IMP-941 | lithic shop, Malpais | 2 m x 1 m | Unevaluated |
| CA-IMP-940 | lithic shop, Malpais | 1 m x 1 m | Unevaluated |
| CA-IMP-937 | assemblage of porphyry tools and debitage; lithic shop, malpais | 2 m x 2 m | Unevaluated |
| CA-IMP-936 | small lithic shop, Malpais | 1 m x 1 m | Unevaluated |
| CA-IMP-935 | lithic shop, Malpais or SD I | 1 m x 1 m | Unevaluated |
| CA-IMP-808 | trail | 402 m x 1 m | Unevaluated |
| CA-IMP-778 | fire pit | 1 m x 1 m x 14.5 cm | Unevaluated |
| CA-IMP-777 | trail | 1,609 m x 1 m | Unevaluated |
| CA-IMP-764 | trail | 804 m x 3 m | Unevaluated |
| CA-IMP-760 | lithic shop | 30 m x 40 m x 20 cm | Unevaluated |
| CA-IMP-759 | trail | 80 m x 35 cm | Unevaluated |
| CA-IMP-758 | mound of pebbles on a sand base | 1 m x 1 m 35 cm x 7 cm | Unevaluated |
| CA-IMP-740-I | single artifact (isolate); fist axe | 158 mm x 70 mm x 70 mm | Unevaluated |
| CA-IMP-734 | lithic shop | 1 m x 2 m | Unevaluated |
| CA-IMP-733 | lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-732 | lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-731 | lithic area with large amount of chipped and flaked porphyry and quartz | 10 m x 10 m | Unevaluated |
| CA-IMP-453 | pottery shards | --- | Unevaluated |
| CA-IMP-364 | probable seasonal campsite | 120 m x 130 m | Unevaluated |
| CA-IMP-321 | Yuman site | --- | Unevaluated |
| CA-IMP-112 | cremation site | 15 to 20 m x 15 to 20 m x 1 ft | Unevaluated |
| CA-IMP-7886 | United States Highway 80 frontage road | 2.5 mi x 30 m | Unevaluated |
| CA-IMP-7868-H | historic trash scatter on open desert | 8 m x 12 m | Unevaluated |
| CA-IMP-7816-H | historic railroad stop | 100 m x 40 m | Unevaluated |
| CA-IMP-5225 | geoglyph | 5 m x 10 m | Unevaluated |
| CA-IMP-5203 | temporary campsite | 15 m x 10 m | Unevaluated |
| CA-IMP-5202 | temporary campsite | 29 m x 20 m | Unevaluated |
| CA-IMP-5201 | pumice cache and low-density lithic scatter | 15 m x 15 m | Unevaluated |
| CA-IMP-5200 | chipping circle | 22 m x 2 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|--------------------------------------------------------------------------|-------------------|-------------------------|
| CA-IMP-5199 | chipping circle | 15 m x 25 m | Unevaluated |
| CA-IMP-5190 | trail, porphery side scraper, porphery punctate | 100 m x 6 m | Unevaluated |
| CA-IMP-5189 | lithic tools and flakes, possible shell midden, ceramics, and trails | 60 m x 80 m | Unevaluated |
| CA-IMP-4954 | lithic site with cairn | 220 m x 120 m | Unevaluated |
| CA-IMP-4875 | chipping circle | 0.5 m x 0.5 m | Unevaluated |
| CA-IMP-4750 | lithic scatter | 1 m x 1 m | Unevaluated |
| CA-IMP-4602 | pottery scatter | 25 m x 25 m | Unevaluated |
| CA-IMP-2302 | lithic work | 30 m x 30 m | Unevaluated |
| CA-IMP-2084 | chopper, 2 cores, and knife | 5 m x 5 m | Unevaluated |
| CA-IMP-2083 | chipping station with core, chopper, and debitage | 5 m x 5 m | Unevaluated |
| CA-IMP-2082 | chopper and 2 cores | 3 m x 18 m | Unevaluated |
| CA-IMP-2081 | 3 tools, choppers, and scraper | 1 m x 30 m | Unevaluated |
| CA-IMP-2078 | choppers and core | 30.4 m x 21.3 m | Unevaluated |
| CA-IMP-2077 | core, chopper, debitage, and scraper | 30.4 m x 9.1 m | Unevaluated |
| CA-IMP-2076 | core and 3 choppers | 5 m x 5 m | Unevaluated |
| CA-IMP-2075 | core, grey porphyry, 2 choppers | 3 m x 3 m | Unevaluated |
| CA-IMP-2073 | chipping station, scrapers, knives, spokeshave | 1 m x 2 m | Unevaluated |
| CA-IMP-2071 | lithic shop | 6 m x 6 m | Unevaluated |
| CA-IMP-2046 | lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-2044 | lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-2043 | lithic shop | 1.5 m x 1.5 m | Unevaluated |
| CA-IMP-2041 | lithic shop | 7 m x 7 m | Unevaluated |
| CA-IMP-2038 | porphyry core with debitage | unknown | Unevaluated |
| CA-IMP-2036 | punctate and debitage | 1 m x 1 m | Unevaluated |
| CA-IMP-2035 | single artifact (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-2034 | lithic shop | 7.6 m x 7.6 m | Unevaluated |
| CA-IMP-2033 | chipping station | 10 m x 2 m | Unevaluated |
| CA-IMP-2029 | chopper, lithic shop | unknown | Unevaluated |
| CA-IMP-2028 | lithic shop | unknown | Unevaluated |
| CA-IMP-2027 | lithic shop with combination tools | 5 m x 5 m | Unevaluated |
| CA-IMP-2026 | lithic shops | 3 m x 3 m | Unevaluated |
| CA-IMP-2024 | miscellaneous artifacts | 1 m x 1 m | Unevaluated |
| CA-IMP-2025 | lithic shop | 4 m x 4 m | Unevaluated |
| CA-IMP-2013 | single artifact amid misc worked material | 10 m x 10 m | Unevaluated |
| CA-IMP-2011 | lithic shops | 50 m x 50 m | Unevaluated |
| CA-IMP-2010 | lithic shop with knives, scrapers, cores, debitage, other possible tools | --- | Unevaluated |
| CA-IMP-2009 | lithic shop with cores, debitage, and tools | 10 m x 10 m | Unevaluated |
| CA-IMP-2006 | lithic shop with tools, cores, and debitage | 1 m x 1 m | Unevaluated |
| CA-IMP-2005 | single artifact in extended lithic area | 1 m x 1 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|-------------------------------------------------|----------------------|-------------------------|
| CA-IMP-2004 | miscellaneous tools in extended lithic site | 1 m x 1 m | Unevaluated |
| CA-IMP-2003 | miscellaneous artifacts in extended lithic area | 1 m x 1 m | Unevaluated |
| CA-IMP-2002 | single artifact along extended lithic shop | 12 m x 12 m | Unevaluated |
| CA-IMP-2001 | random artifact in extended lithic shop | 8 m x 5 m | Unevaluated |
| CA-IMP-2000 | lithic shop with tools, cores, and debitage | 8 m x 8 m | Unevaluated |
| CA-IMP-1999 | scraper, mano, and destroyed evidence | 1 m x 0.5 m | Unevaluated |
| CA-IMP-1997 | lithic shop with chips | 2 m x 3 m | Unevaluated |
| CA-IMP-1996 | lithic shop | 3 m x 4 m | Unevaluated |
| CA-IMP-1746 | crossed express and Indian trail | --- | Unevaluated |
| CA-IMP-1745 | crossed express and Indian trail | --- | Unevaluated |
| CA-IMP-1744 | crossed express and Indian trail | --- | Unevaluated |
| CA-IMP-1724 | Indian trail Northeast | --- | Unevaluated |
| CA-IMP-2030 | single artifact (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-1663 | campsite | 3 m x 7.5 m | Unevaluated |
| CA-IMP-1662 | temporary campsite | 75.5 m x 38.4 m | Unevaluated |
| CA-IMP-1661 | pottery scatter and tools | --- | Unevaluated |
| CA-IMP-1426 | village | 10 m x 100 m | Unevaluated |
| CA-IMP-1420 | pottery scatter and felsite flake scatter | 20 m x 30 m | Unevaluated |
| CA-IMP-1419 | lithic scatter, pottery locus | 40 m x 40 m | Unevaluated |
| CA-IMP-1418 | 3 pot sherds | 10 m x 10 m | Unevaluated |
| CA-IMP-1417 | 6 sherds | 8 m x 4 m | Unevaluated |
| CA-IMP-1412 | pot sherd (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-1411 | felsite flake (isolate) | 1 m x 1 m | Unevaluated |
| CA-IMP-1078 | lithic shop, mound of 19 cobbles on sand base | 33 m x 50 m | Unevaluated |
| CA-IMP-1072 | lithic shop and cairn, Malpais | 30 m x 50 m | Unevaluated |
| CA-IMP-1070 | lithic shops | 2 m x 4 m | Unevaluated |
| CA-IMP-1069 | lithic shop, Malpais | --- | Unevaluated |
| CA-IMP-1067 | trail | 208 m x 1 m | Unevaluated |
| CA-IMP-1015 | temporary campsite and lithic shop | 30 m x 15 m | Unevaluated |
| CA-IMP-1014 | trail | 35 m x 1 m | Unevaluated |
| CA-IMP-1013 | lithic shop, San Dieguito I | 15 m x 15 m | Unevaluated |
| CA-IMP-1012 | temporary campsite, Yuman | 15 m x 15 m | Unevaluated |
| CA-IMP-1011 | sleeping circles | 320 cm x 5 cm x 5 cm | Unevaluated |
| CA-IMP-1010 | sleeping circle | 225 cm x 5 cm x 5 cm | Unevaluated |
| CA-IMP-1007 | lithic shop, Yuman | 10 m x 10 m | Unevaluated |
| CA-IMP-1006 | temporary campsite, Yuman | 10 m x 10 m | Unevaluated |
| CA-IMP-1003 | lithic shop, San Dieguito | 1 m x 1 m | Unevaluated |
| CA-IMP-1002 | temporary campsite, San Dieguito | 8 m x 8 m | Unevaluated |
| CA-IMP-1001 | temporary campsite, San Dieguito | 5 m x 5 m | Unevaluated |
| CA-IMP-1000 | trail | 50 m (length) | Unevaluated |
| CA-IMP-999 | scattered lithic shop, Yuman | 15 m x 15 m | Unevaluated |
| CA-IMP-998 | temporary campsite, Yuman | 3 m x 3 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|-------------------------------------|---------------------------|-------------------------|
| CA-IMP-997 | cremation site, Yuman | 3 m x 3 m | Unevaluated |
| CA-IMP-996 | temporary campsite, Yuman | 30 m x 30 m | Unevaluated |
| CA-IMP-995 | temporary campsite, Yuman | 30 m x 30 m | Unevaluated |
| CA-IMP-994 | temporary campsite, Yuman | 3 m x 3 m | Unevaluated |
| CA-IMP-993 | cremation site, Yuman | 3 m x 3 m | Unevaluated |
| CA-IMP-992 | temporary campsite, Yuman | 150 m x 50 m | Unevaluated |
| CA-IMP-991 | temporary campsite, Yuman | 30 m x 30 m | Unevaluated |
| CA-IMP-990 | cairn (or monument), probable Yuman | 1 m x 1 m | Unevaluated |
| CA-IMP-989 | trail, probable Yuman | 402 m x 1 m | Unevaluated |
| CA-IMP-972 | lithic shop | 60.9 cm x 70.9 cm | Unevaluated |
| CA-IMP-964 | cairn, lithic scatter | recheck | Unevaluated |
| CA-IMP-963 | trail | 805 m x 6 m | Unevaluated |
| CA-IMP-962 | 3 scrapers, possible lithic site | 6 m x 6 m | Unevaluated |
| CA-IMP-961 | tools along trail | 500 m x 1 m | Unevaluated |
| CA-IMP-958 | cairn | 1 m x 2 m | Unevaluated |
| CA-IMP-3399-H | crossed wagon road | --- | Unevaluated |
| CA-IMP-3396-H | crossed express trail | --- | Unevaluated |
| CA-IMP-3192-H | Dixieland Cafe and Grocery store | --- | Unevaluated |
| CA-IMP-3191-H | ruins of the Dixieland School | --- | Unevaluated |
| CA-IMP-2479 | scraper, 2 cores, and flakes | 1 m x 1 m | Unevaluated |
| CA-IMP-2478 | possible trail | 100 m x 1 m | Unevaluated |
| CA-IMP-2443 | lithic work, green porphyry | 130 m x 10 m | Unevaluated |
| CA-IMP-2442 | 5 fired red sandstone deposits | 100 m x 60 m | Unevaluated |
| CA-IMP-2441 | 2 cores and flakes | 5 m x 5 m | Unevaluated |
| CA-IMP-2440 | 2 cores and 20 bone fragments | 5 m x 5 m | Unevaluated |
| CA-IMP-2439 | 2 cores and a few flakes | 10 m x 10 m | Unevaluated |
| CA-IMP-2438 | lithic scatter | 10 m x 10 m | Unevaluated |
| CA-IMP-2373 | intersection of 2 trails | 300 m x 1 m | Unevaluated |
| CA-IMP-2372 | lithic work | 15 m x 15 m | Unevaluated |
| CA-IMP-2371 | lithic work | 30 m x 30 m | Unevaluated |
| CA-IMP-2364 | lithic workshop | multiple dimensions given | Unevaluated |
| CA-IMP-2363 | lithic work | 30 m x 30 m | Unevaluated |
| CA-IMP-2362 | single artifact | 1 m x 1 m | Unevaluated |
| CA-IMP-2361 | lithic shop | 9.12 | Unevaluated |
| CA-IMP-2360 | cairn | 1 m x 1 m | Unevaluated |
| CA-IMP-2359 | lithic shop | 1 m x 1 m | Unevaluated |
| CA-IMP-2353 | single artifact | 1 m x 1 m | Unevaluated |
| CA-IMP-2351 | 3 artifacts | unknown | Unevaluated |
| CA-IMP-2334 | lithic shop, 5 tools | 6 m x 4.5 m | Unevaluated |
| CA-IMP-2333 | lithic workshop | 2.4 m x 2.4 m | Unevaluated |
| CA-IMP-2332 | lithic workshop with core | 3 m x 1.5 m | Unevaluated |
| CA-IMP-4584 | 05e: chipping circle | 5 m x 5 m | Unevaluated |

**Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area**

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|------------------|--------------------------------------|---------------------------|-------------------------|
| CA-IMP-2306 | single artifact | multiple dimensions given | Unevaluated |
| CA-IMP-2305 | lithic work | 100 m x 30 m | Unevaluated |
| CA-IMP-2304 | lithic work | 30 m x 100 m | Unevaluated |
| CA-IMP-2303 | lithic work | 50 m x 50 m | Unevaluated |
| CA-IMP-2236 | lithic work | 25 m x 10 m | Unevaluated |
| CA-IMP-2235 | lithic work (core and debitage) | 2 m x 2 m | Unevaluated |
| CA-IMP-2234 | lithic work | 1 m x 1 m | Unevaluated |
| CA-IMP-2232 | lithic work (spokeshave and flakes) | 1 m x 2 m | Unevaluated |
| CA-IMP-2231 | lithic workshop | 2 m x 2 m | Unevaluated |
| CA-IMP-2226 | lithic (3 cores) | 3 m x 1 m | Unevaluated |
| CA-IMP-2225 | lithic work | 3 m x 2 m | Unevaluated |
| CA-IMP-2214 | lithic workshop and tools | 12 m x 3 m | Unevaluated |
| CA-IMP-2213 | lithic work | 60 m x 20 m | Unevaluated |
| CA-IMP-2211 | lithic work (core and 3 choppers) | 3 m x 3 m | Unevaluated |
| CA-IMP-2205 | sleeping circle, 3 flaking stations | 10 m x 10 m | Unevaluated |
| CA-IMP-2204 | lithic work (core and debitage) | 1 m x 1 m | Unevaluated |
| CA-IMP-2203 | lithic work (3 choppers) | 5 m x 3 m | Unevaluated |
| CA-IMP-2202 | lithic work (3 choppers) | 20 m x 5 m | Unevaluated |
| CA-IMP-2200 | lithic station | 1 m x 1 m | Unevaluated |
| CA-IMP-956 | trail | 1,207 m x 1 m | Unevaluated |
| CA-IMP-934 | lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-932 | small lithic shop | 2 m x 2 m | Unevaluated |
| CA-IMP-776 | cleared sandy area | 1 m x 1 m | Unevaluated |
| CA-IMP-741 | cairn | 1 m x 1 m x 20 cm | Unevaluated |
| CA-IMP-739-I | ridge-backed scraper | 103 mm x 83 mm x 27 mm | Unevaluated |
| CA-IMP-738 | lithic shop and 3 tools | 7 m x 3 m | Unevaluated |
| CA-IMP-737 | cairn | 112 cm x 180 cm x 24 cm | Unevaluated |
| CA-IMP-735 | cairn of porphyry rock | 90 cm x 90 cm x 7 cm | Unevaluated |
| CA-IMP-456 | temporary campsite | 0.5 acre | Unevaluated |
| CA-IMP-1071 | campsite | 100 m x 100 m | Unevaluated |
| CA-IMP-966 | agave pit | recheck | Unevaluated |
| CA-IMP-960 | lithic shop | 2 m x 3 m | Unevaluated |
| CA-IMP-959 | cairn | 1 m x 1 m | Unevaluated |
| CA-IMP-269 | probable seasonal area | 480 m x 890 m | Unevaluated |
| CA-IMP-1066 | small lithic shop | 1.5 m x 1 m | Unevaluated |
| CA-IMP-3402-H | Wagon Road (unable to relocate 1978) | --- | Unevaluated |

Table 5.7-2
Previously Recorded Cultural Resources Within 1 Mile of the Project Area

| Trinomial | Site Type | Dimensions | NRHP Eligibility |
|---------------|--------------------------------------|------------|------------------|
| CA-IMP-3400-H | Wagon Road (unable to relocate 1978) | --- | Unevaluated |
| CA-IMP-4471 | 07; pottery scatter | --- | Unevaluated |

Source: URS Corporation, 2008a.

Notes:

- = not available
- APE = Area of Potential Effect
- cm = centimeters
- ft = feet
- m = meter
- mi = miles
- mm = millimeter
- NRHP = National Register of Historic Places
- sq m = square mile
- x = by

5.7.6 Archaeological Survey

The archaeological survey was conducted in two different sessions due to the addition of acreage to the Project APE after the first field session was complete. Survey for the initial Project APE was completed by a crew of twenty between 9 January 2008 and 5 April 2008. Fieldwork was under the overall control of Reid Farmer, and due to varying personnel requirements, field supervision was under the control of Mr. Farmer, Rachael Nixon, Dustin Kay, Leroy Laurie, or Joshua Peabody. Survey for the additional acreage was conducted under the field supervision of Rachael Nixon and a crew of four between 6 and 9 May 2008.

Work was conducted under URS Cultural Resource Use Permits CA-06-01 and CA-06-11. A Fieldwork Authorization (Form 8151-3) for this Project was issued by the El Centro BLM Field Office on 17 December 2007 and a second authorization was issued on 31 March 2008, when the fieldwork took longer than initially anticipated.

This pedestrian survey for the Project APE covered the Project area and extended an additional 200 feet around it (Appendix Z, Cultural Resources Technical Report). A 300-foot wide right-of-way was surveyed for the proposed transmission line. The survey right-of-way extended approximately 7.5 miles south (approximately 10.5 miles total) of the Project area. Survey of a 50-foot right-of-way for a 7-mile-long water supply line east of the Project area was also conducted. The principal survey method consisted of a systematic walk-over in parallel transects at 10 meter intervals. The survey transects extended across the entire horizontal extent of the archaeological APE and the rights-of-way of the linears. Little vegetation was extant in the area, and ground visibility was excellent, usually at least 90 percent.

The URS archaeological team identified 264 archaeological sites and isolated finds. These are listed in Table 5.7-3, Newly Recorded Cultural Resources Within the Project Area. This list of sites is preliminary. Information is still being processed for each of the sites and will be completed before the final version of this table is submitted in the final version of the Cultural Resources Technical Report (URS 2008b). The table below reflects data currently available. At this time, data that assists in determining NRHP eligibility for some sites is not available. Many

of the site boundaries are being reconfigured to include other newly recorded sites or previously recorded sites. Much of the information and details related to the cultural resource sites recorded during the Project may be subject to change between the draft and final Cultural Resources Technical reports (URS 2008b). Details about these sites, the Department of Parks and Recreation 523 forms completed for them, and the reasons for the URS recommendations are shown in Appendix Z, Cultural Resources Technical Report.

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|---------------------|-------------------------|---------------------------------------------------------------------------|
| DRK-001 | SB-035 | Possible temporary camp location |
| DRK-001 | SB-035 | Prehistoric foot trail |
| DRK-002 | SB-061 | Lithic scatter |
| DRK-004 | SB-062 | Prehistoric lithic reduction station |
| DRK-005 | SB-063 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-006 | ----- | Prehistoric trail |
| DRK-007 | ----- | Prehistoric trail |
| DRK-008 | T-17, 18, and 19 | 3 prehistoric desert trails and Prehistoric lithic reduction station |
| DRK-009 | SB-043 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-010-H | SB-049 | GLO Marker, cairn and tobacco tin |
| DRK-011 | SB-050 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-012 | SB-051 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-013 | SB-052 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-015 | SB-068 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-016 | SB-065 | Prehistoric lithic reduction station |
| DRK-017 | SB-066 | Small Prehistoric lithic reduction station |
| DRK-019 | SB-072 | Prehistoric trail and pot drop loci |
| DRK-I-020H | ----- | GLO marker |
| DRK-I-021H | ----- | GLO marker |
| DRK-022 | SB-076 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-023-H | SB-077 | Historic rock cairns |
| DRK-025 | SB-079 | Prehistoric lithic reduction station |
| DRK-I-026H | ----- | Historic cairn |
| DRK-027 | SB-085 | Prehistoric cairn and Prehistoric lithic procurement site |
| DRK-I-028 | ----- | Lithic scatter |
| DRK-030-H | SB-092 | Historic trash, bottle and can scatter |
| DRK-031 | SB-094 | Sparse Prehistoric lithic reduction station |
| DRK-032 | SB-095 | Concentrated Prehistoric lithic reduction station |
| DRK-I-033H | ----- | GLO marker |
| DRK-034 | SB-096 | Sparse Prehistoric lithic reduction station |
| DRK-035 | ----- | Sparse Prehistoric lithic reduction station |
| DRK-037 | SB-097 | Sparse prehistoric lithic scatter |
| DRK-I-039 | ----- | Metavolcanic Core |
| DRK-041 | SB-102 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-042 | SB-106 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|---------------|------------------|---------------------------------------------------------------------------|
| DRK-043 | SB-107 | Sparse prehistoric lithic scatter |
| DRK-044 | SB-111 | Sparse prehistoric lithic scatter |
| DRK-045 | SB-112 | Sparse prehistoric lithic scatter |
| DRK-046 | SB-119 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-047 | SB-120 | Prehistoric lithic procurement site and lithic reduction locus |
| DRK-048 | SB-121 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-049 | SB-123 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-050 | SB-122 | Prehistoric lithic reduction station |
| DRK-I-051 | ----- | Metavolcanic tested cobble |
| DRK-052 | SB-124 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-SUR-I-115 | ----- | Tison brown ceramic sherd |
| DRK-SUR-I-135 | ----- | 2 Tizon Brown ceramic sherds |
| DRK-139 | SB-182 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| DRK-140 | SB-183 | Sparse prehistoric lithic scatter |
| DRK-141 | SB-184 | Habitation site |
| DRK-143 | SB-185 | Ground stone scatter |
| DRK-144 | SB-186 | Prehistoric lithic procurement site |
| DRK-146-H | SB-187 | Historic refuse scatter |
| DRK-147/H | SB-188 | Prehistoric lithic scatter w/historic component |
| DRK-148 | SB-026 | Update SB-26 / activity area campsite |
| DRK-149-H | SB-190 | Historic trash and can scatter |
| DRK-150/H | SB-029 | Prehistoric lithic procurement site w/historic component |
| DRK-150 | SB-030 | Multi component Prehistoric and Historic site |
| DRK-SUR-152 | ----- | Temporary habitation site |
| DRK-SUR-154H | ----- | Historic refuse scatter |
| DRK-SUR-157 | ----- | Prehistoric lithic and ceramic sherd scatter |
| DRK-SUR-158 | ----- | Habitation and Prehistoric lithic procurement site |
| DRK-SUR-162 | ----- | Habitation and Prehistoric lithic procurement site |
| DRK-SUR-163H | ----- | Historic refuse scatter |
| DRK-SUR-167 | ----- | Habitation and Prehistoric lithic procurement site |
| DRK-188 | SB-201 | Sparse prehistoric lithic scatter |
| DRK-SUR-189 | ----- | Prehistoric artifact concentration |
| DRK-SUR-190H | ----- | Historic irrigation canal |
| EBR-001 | SB-056 | Prehistoric lithic scatters and trails |
| EBR-002 | SB-057 | Prehistoric trail and lithic reduction loci |
| EBR-003 | SB-001 | Prehistoric lithic reduction station |
| EBR-008 | ----- | Temporary prehistoric campsite and lithic scatter |
| EBR-009/H | ----- | Prehistoric lithic and Historic refuse scatters |
| EBR-010 | ----- | Prehistoric lithic and ceramic scatter |
| EBR-011 | ----- | Prehistoric lithic and ceramic scatter |
| EBR-012 | ----- | Prehistoric lithic procurement site |
| EBR-013 | ----- | Prehistoric lithic reduction station |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|--------------|------------------|---------------------------------------------------------------------------|
| EBR-017 | ----- | Extensive prehistoric lithic and tool scatter |
| EBR-014aH | SB-047 | Historic refuse scatter |
| EBR-018 | SB-036 | Prehistoric lithic and ceramic sherds scatter |
| EBR-019 | SB-042 | Large prehistoric open camp |
| EBR-020 | SB-064 | Prehistoric lithic reduction station |
| EBR-021 | SB-055 | Prehistoric lithic reduction station |
| EBR-022 | SB-045 | Prehistoric cairns and lithics |
| EBR-023 | SB-046 | Prehistoric lithic reduction station |
| EBR-024 | ----- | Prehistoric lithic reduction station |
| EBR-025 | SB-048 | Prehistoric lithic reduction station |
| EBR-026 | SB-069 | Prehistoric ceramic sherd scatter |
| EBR-060 | SB-209 | Tamped circle |
| EBR-061 | SB-128 | Prehistoric lithic reduction station |
| EBR-062 | SB-129 | Prehistoric lithic reduction station |
| EBR-I-063 | ----- | Bifacially worked primary flake |
| EBR-064 | ----- | Prehistoric lithic reduction station |
| EBR-065 | SB-130 | Prehistoric lithic reduction station |
| EBR-066 | SB-131 | Prehistoric lithic and ceramic scatter |
| EBR-070 | SB-132 | Prehistoric lithic reduction station |
| EBR-072 | SB-133 | Prehistoric lithic reduction station |
| EBR-077 | SB-139 | Prehistoric ceramic sherd scatter and tested cobble |
| EBR-079 | SB-135 | Prehistoric lithic reduction loci |
| EBR-080 | SB-210 | Prehistoric lithic reduction station and trail |
| EBR-081 | SB-136 | Prehistoric lithic reduction station |
| EBR-084 | SB-137 | Prehistoric lithic reduction station |
| EBR-085 | SB-138 | Prehistoric ceramic scatter |
| EBR-I-086H | ----- | Historic glass |
| EBR-087-H | SB-212 | Historic glass and can scatter and historic road |
| EBR-I-088 | ----- | Tested cobble |
| EBR-089/H | ----- | Prehistoric lithic reduction station and historic glass |
| EBR-091 | ----- | Prehistoric lithic scatter |
| EBR-092-H | SB-214 | Historic cairn |
| EBR-095 | SB-140 | Prehistoric lithic reduction loci |
| EBR-096 | SB-141 | Prehistoric lithic reduction loci |
| EBR-097 | SB-142 | Prehistoric ceramic scatter |
| EBR-098 | SB-143 | Prehistoric lithic procurement site and Prehistoric lithic reduction loci |
| EBR-099 | SB-144 | Prehistoric lithic reduction loci |
| EBR-100 | SB-216 | Prehistoric lithic reduction loci |
| EBR-101 | SB-217 | Prehistoric lithic reduction loci |
| EBR-102 | SB-218 | Prehistoric lithic reduction loci |
| EBR-103 | SB-219 | Prehistoric lithic reduction loci |
| EBR-106 | SB-220 | Prehistoric lithic scatter |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|--------------|------------------|------------------------------------------------------------------------------|
| EBR-107 | SB-221 | Prehistoric lithic scatter |
| EBR-108 | SB-222 | Prehistoric lithic reduction station |
| EBR-109/H | SB-223 | Prehistoric lithic reduction station and historic insulator fragment |
| EBR-200 | ----- | Prehistoric lithic reduction site |
| EBR-213 | SB-233 | Prehistoric lithic and ceramic sherds scatter |
| EBR-218 | SB-381 | Prehistoric lithic and ceramic sherds scatter |
| EBR-219 | SB-237 | Prehistoric lithic and ceramic sherds scatter |
| EBR-I-222 | SB-240 | Prehistoric hearth |
| EBR-223 | SB-241 | Prehistoric lithic scatter |
| EBR-300 | SB-242 | Prehistoric lithic reduction loci |
| EBR-I-300 | ----- | Quartz Prehistoric lithic reduction station |
| EBR-301 | ----- | Continuation Site RAN-85/SB-269 Prehistoric lithic and ceramic sherd scatter |
| EBR-303-H | SB-245 | Historic refuse scatter |
| EBR-304 | SB-246 | Prehistoric lithic and ceramic sherds scatter |
| EBR-305 | SB-247 | Prehistoric lithic scatter |
| EBR-C | SB-248 | Prehistoric occupation site with cremation |
| JF-001 | SB-259 | Prehistoric lithic scatter |
| JF-002 | SB-260 | Prehistoric lithic scatter |
| JF-003 | SB-261 | Prehistoric lithic scatter |
| JF-004 | SB-262 | Prehistoric lithic scatter |
| JF-005 | SB-263 | Prehistoric lithic scatter |
| JF-006H | SB-264 | Historic rock cairns |
| JF-007H | SB-265 | Gravel piles from modern gravel mining |
| JF-008H | SB-002 | Historic refuse deposit |
| JF-019 | SB-011 | Prehistoric lithic scatter |
| JF-026 | SB-266 | Lithic and ceramic scatter |
| JF-026 | SB-054 | Prehistoric lithic and ceramic sherds scatter and fire affected rocks |
| JF-027 | SB-024 | Prehistoric lithic scatter |
| JF-030H | SB-027 | Historic refuse deposit |
| JF-031H | SB-028 | Historic refuse deposit |
| JF-043/H | SB-060 | Prehistoric lithic and historic refuse scatter |
| JM-001 | SB-146 | Prehistoric lithic scatter |
| JM-002 | SB-147 | Prehistoric lithic reduction station |
| JM-003 | SB-148 | Prehistoric lithic scatter and tools |
| JM-004 | SB-149 | Prehistoric cobble tools |
| JM-005 | SB-150 | Prehistoric lithic scatter (tools, cores and flakes) |
| JM-006 | SB-151 | Prehistoric lithic scatter |
| JM-007 | SB-152 | Prehistoric cobble tools and flakes |
| JM-008 | SB-153 | Prehistoric lithic scatter |
| JM-009 | SB-154 | Prehistoric lithic reduction station |
| JM-011 | SB-157 | Prehistoric lithic procurement and lithic reduction station |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|---------------------|-------------------------|------------------------------------------------------------------------------------------------|
| JM-012 | SB-158 | Prehistoric lithic scatter |
| JM-013 | ----- | Prehistoric lithic scatter and cobble tool |
| JM-016 | SB-161 | Prehistoric lithic scatter |
| JM-017 | SB-162 | Prehistoric lithic reduction station |
| JM-020 | SB-156 | Prehistoric lithic procurement and lithic reduction station |
| JM-021 | SB-164 | Prehistoric lithic scatter and rock cairn |
| JM-022 | SB-165 | Prehistoric lithic scatter |
| JM-023 | SB-166 | Prehistoric lithic scatter |
| JM-024 | SB-167 | Prehistoric lithic scatter |
| JM-025 | SB-268 | Prehistoric lithic scatter |
| JM-026 | SB-168 | Prehistoric lithic reduction station |
| JM-027 | SB-169 | Prehistoric lithic scatter |
| JM-028 | SB-170 | Prehistoric lithic scatter |
| JM-029 | SB-269 | Prehistoric lithic scatter and lithic reduction station |
| JM-030 | SB-163 | Prehistoric lithic scatter |
| JM-032 | SB-171 | Prehistoric lithic scatter |
| JM-033 | SB-172 | Prehistoric lithic scatter |
| JM-034 | ----- | Prehistoric lithic scatter |
| JM-035 | SB-173 | Prehistoric lithic reduction station |
| JM-036 | SB-270 | Prehistoric lithic reduction station |
| JM-037 | SB-271 | Prehistoric lithic reduction station |
| JM-038 | SB-174 | Prehistoric lithic scatter and lithic reduction station |
| JM-041 | SB-176 | Prehistoric trail and lithic scatter |
| JMK-010 | SB-283 | Prehistoric lithic and ceramic scatter |
| JMR-004 | SB-290 | Single prehistoric hearth feature |
| JMR-005/H | SB-291 | Prehistoric lithic reduction loci and Historic refuse scatter |
| JMR-006-H | SB-292 | Historic refuse scatter and cairn |
| JMR-I-007 | ----- | Prehistoric Colorado buff ceramic sherd with slip |
| JMR-008 | SB-293 | Prehistoric quartz lithic reduction station |
| JMR-009 | SB-294 | Prehistoric lithic reduction loci and scatter |
| JMR-I-010 | ----- | Core and pestle |
| JMR-011 | SB-295 | Prehistoric lithic reduction station |
| JMR-012 | SB-296 | Prehistoric lithic reduction station |
| JMR-013 | SB-297 | Prehistoric lithic reduction station |
| JMR-014 | SB-298 | Prehistoric lithic reduction loci |
| JMR-018 | SB-299 | Multiple Prehistoric lithic reduction station |
| JMR-I-021 | SB-300 | Metavolcanic flake and prehistoric ceramic sherds |
| JMR-022 | SB-301 | Update of CA-IMP-269: prehistoric ceramic sherd scatters and prehistoric lithic reduction loci |
| JMR-024 | ----- | Prehistoric ceramic sherd and lithic scatter |
| JMR-025 | SB-302 | Prehistoric lithic reduction loci |
| LL-018 | SB-318 | Prehistoric lithic scatter |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|---------------------|-------------------------|-------------------------------------------------------------------------------------------------------------|
| LL-I-019 | SB-319 | Metavolcanic tested cobble |
| LL-020 | SB-320 | Prehistoric lithic reduction station |
| LL-021 | SB-321 | Prehistoric lithic reduction station |
| LL-022 | SB-322 | Prehistoric lithic reduction station |
| LL-024 | SB-324 | Prehistoric lithic reduction station |
| LL-I-026H | SB-326 | Historic brown bottle glass |
| RAN-001-H | SB-070 | GLO marker |
| RAN-002 | SB-071 | Prehistoric lithic reduction station |
| RAN-004/H | SB-073 | Prehistoric lithic and Historic refuse scatter |
| RAN-005-H | SB-074 | GLO marker |
| RAN-006-H | SB-075 | Historic refuse deposit |
| RAN-007 | SB-080 | Prehistoric lithic scatter |
| RAN-I-008-H | SB-081 | Prehistoric ceramic Tizon Brown body sherd |
| RAN-009-H | SB-082 | Historic refuse scatter (possible association with railroad) |
| RAN-010 | SB-084 | Prehistoric lithic scatter |
| RAN-011 | SB-086 | Lithic reduction areas |
| RAN-012 | SB-087 | Multi-component prehistoric lithic reduction loci |
| RAN-013-H | SB-088 | Historic refuse deposit |
| RAN-014-H | SB-089 | Historic refuse deposit |
| RAN-015-H | SB-090 | Historic refuse deposit |
| RAN-016-H | SB-093 | GLO marker |
| RAN-017/H | SB-100 | Multi-component historic structural/encampment remains and prehistoric Prehistoric lithic reduction station |
| RAN-018-H | SB-098 | Historic areal photo marker |
| RAN-019-H | SB-099 | Historic refuse deposit |
| RAN-020-H | SB-101 | Historic refuse deposit |
| RAN-021 | SB-103 | Prehistoric lithic reduction loci |
| RAN-022-H | SB-104 | Historic trash and can scatter |
| RAN-023H | SB-105 | Historic cistern foundation and wire concentration |
| RAN-024 | SB-108 | Prehistoric lithic scatter and lithic reduction station |
| RAN-025 | SB-109 | Prehistoric lithic scatter |
| RAN-026 | SB-110 | Prehistoric lithic reduction station |
| RAN-027-H | SB-113 | Historic campsite |
| RAN-028 | SB-114 | Prehistoric lithic reduction station |
| RAN-029 | SB-115 | Prehistoric lithic reduction loci |
| RAN-030 | SB-116 | Prehistoric lithic reduction loci |
| RAN-034-H | SB-125 | Historic artifact scatter |
| RAN-035-H | SB-126 | Historic artifact scatter |
| RAN-036/H | SB-127 | Historic and prehistoric activity area (Prehistoric cairns, lithic reduction loci and historic glass) |
| RAN-045 | ----- | Prehistoric lithic scatter |
| RAN-046H | SB-327 | Historic refuse scatter |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|---------------------|-------------------------|-----------------------------------------------------------------|
| RAN-048 | SB-328 | Low density lithic scatter |
| RAN-049-H | SB-329 | Historic refuse scatter |
| RAN-050 | SB-330 | Prehistoric lithic reduction loci |
| RAN-051 | SB-331 | Prehistoric lithic reduction loci |
| RAN-052 | SB-382 | Prehistoric lithic reduction loci |
| RAN-053 | SB-332 | Prehistoric lithic reduction loci |
| RAN-054 | SB-333 | Prehistoric lithic reduction loci |
| RAN-055 | SB-334 | Prehistoric lithic reduction loci |
| RAN-057 | SB-335 | Prehistoric ceramic sherd scatter |
| RAN-058 | SB-336 | Prehistoric lithic reduction loci |
| RAN-061 | SB-337 | Prehistoric lithic reduction loci |
| RAN-063 | SB-338 | Prehistoric lithic reduction loci |
| RAN-066 | SB-339 | Prehistoric lithic reduction loci |
| RAN-067 | SB-340 | Prehistoric lithic reduction loci |
| RAN-068 | SB-341 | Prehistoric quartz lithic reduction station |
| RAN-069 | SB-342 | Prehistoric lithic reduction loci |
| RAN-070 | SB-343 | Prehistoric lithic reduction loci |
| RAN-072 | SB-344 | Prehistoric lithic reduction station |
| RAN-073 | SB-345 | Prehistoric lithic reduction loci |
| RAN-074 | SB-346 | Prehistoric lithic scatter and lithic reduction station |
| RAN-081 | SB-349 | Prehistoric lithic reduction loci |
| RAN-082 | SB-350 | Prehistoric lithic reduction loci |
| RAN-084 | SB-352 | Prehistoric lithic scatter, lithic reduction station and hearth |
| RAN-088 | ----- | Prehistoric lithic reduction station |
| RAN-092 | SB-354 | Prehistoric lithic reduction loci |
| RAN-095 | SB-355 | Prehistoric lithic reduction station |
| RAN-SUR-I-409 | ----- | Basalt secondary flake |
| RAN-SUR-I-410 | ----- | Metavolcanic retouched flake |
| RAN-SUR-I-411 | ----- | Metavolcanic core and flakes |
| RAN-SUR-I-412A | ----- | Metavolcanic flake |
| RAN-I-412C | SB-356 | Metavolcanic utilized flake |
| RAN-SUR-I-412D | ----- | Basalt core and flakes |
| RAN-412F | SB-357 | Lithic scatter |
| RAN-413A | SB-358 | Lithic scatter |
| RAN-SUR-I-413B | ----- | Metavolcanic flake and quartz shatter |
| RAN-SUR-I-413E | ----- | Metavolcanic tertiary flake |
| RAN-416 | SB-359 | Prehistoric ceramic sherd scatter |
| RAN-417 | SB-360 | Prehistoric lithic reduction station |
| RAN-SUR-I-418A | ----- | Metavolcanic primary flake |
| RAN-418B | SB-361 | Temporary campsite / resource procurement |
| RAN-419 | SB-362 | Prehistoric lithic and ceramic sherd scatter and hearth |
| RAN-420 | SB-363 | Prehistoric lithic scatter and lithic reduction station |

**Table 5.7-3
Newly Recorded Cultural Resources Within the Project Area**

| Field Number | Temporary Number | Site Type |
|----------------|------------------|--------------------------------------------------------|
| RAN-421 | SB-364 | Prehistoric lithic and ceramic sherd scatter |
| RAN-SUR-I-421A | ----- | Prehistoric Tizon Brown sherds and tested cobble |
| RAN-SUR-I-425 | ----- | Fire affected rock and metavolcanic flakes |
| RAN-426 | SB-365 | Lithic scatter |
| RAN-428 | SB-366 | Prehistoric lithic and ceramic scatter |
| RAN-430 | SB-367 | Prehistoric lithic procurement and reduction loci |
| RAN-431 | SB-368 | Prehistoric lithic procurement and reduction loci |
| RAN-433 | SB-369 | Prehistoric lithic procurement site and reduction loci |
| RAN-434 | SB-370 | Prehistoric lithic reduction loci |

Source: URS Corporation, 2008a.

Notes:

----- = information not yet available

NRHP = National Register of Historic Places

5.7.7 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted on 4 January 2008 to request a search of the Native American Sacred Lands File to determine the presence of Native American sacred sites within the APE. A list of the Native American contacts who may have some knowledge of known cultural resources or sacred sites within the APE was also requested. The NAHC responded on 23 January 2008 and indicated that a records search of the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate APE. In addition to the response letter, the NAHC also supplied a Native American contact list.

Because the BLM is responsible for government-to-government tribal consultation, URS delayed notifying the individuals on the NAHC list until BLM had initiated its consultation. Each contact on the list was sent a notification of the proposed undertaking by mail on 28 February 2008 with a request that he or she respond with any known cultural resources or sacred sites within the APE.

A telephone message was received from Carmen Lucas on 10 March 2008 expressing concern that the Project would adversely affect the rich cultural resources in the Project area. A letter was received from Bridget R. Nash-Chrabascz, Tribal Historic Preservation Officer of the Quechan Indian Tribe, on 17 March 2008. This letter forwarded a copy of a letter the Quechan Indian Tribe had sent to BLM on 19 February 2008. This letter had requested that a Class III inventory be conducted of the Project area and that the Quechan Indian Tribe be provided with a report of the results.

Correspondence letters between URS, on behalf of Solar Two, and the NAHC, as well as a spreadsheet showing those Native American individuals contacted are included in Appendix Z, Cultural Resources Technical Report.

5.7.8 Environmental Consequences

5.7.8.1 *Significance Criteria*

Section 106 of the National Historic Preservation Act as implemented per 36 CFR Part 800 defines the process for identifying, evaluating, and assessing adverse effects of federal undertakings on cultural resources. The conduct of this Project has followed this procedure.

Cultural resources that have been identified must be evaluated for eligibility for inclusion on the National Register of Historic Places with reference to the evaluation criteria enumerated in 36 CFR Part 63.

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:

1. that are associated with events that have made a significant contribution to the broad patterns of our history,
2. that are associated with the lives of significant persons in the past,
3. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, and
4. that have yielded or may be likely to yield, information important in history or prehistory.

Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

1. a religious property deriving primary significance from architectural or artistic distinction or historical importance,
2. a building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event,
3. a birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life,
4. a cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events,
5. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived,

6. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance, and
7. a property achieving significance within the past 50 years if it is of exceptional importance.

Once cultural resources have been identified, the lead federal agency for the Project is responsible, in consultation with the State Historic Preservation Officer/Tribal Historic Preservation Officer, and other parties as identified in 36 CFR 800.2, for evaluating the NRHP eligibility. Then, if an NRHP-eligible resource, defined as a “historic property” upon eligibility, will be affected, the lead agency official shall notify all consulting parties and invite their comment with regards to potential adverse effects, if any, in accordance with 36 CFR 800.5.

Per 36 CFR 800.5, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.

Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

Examples of adverse effects could include:

- physical destruction of or damage to all or part of the property,
- alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, or provision of handicapped access, in a way that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines,
- removal of the property from its historic location,
- change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance,
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features,
- neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian Organization, and
- if adverse effects to historic properties are identified, the lead agency in consultation with the identified consulting parties, will agree on adequate mitigation measures.

5.7.9 Cumulative Effects

Direct effects from the Project could result from: vegetation clearing; grading of roads for the Main Services Complex and other structure sites; trenching for pipelines, electrical transmission lines, and drainage diversions; augering for foundations for electrical towers or poles and SunCatchers; and any other earth-moving activity that disturbed or buried previously undisturbed

cultural resources such as prehistoric objects or sites, making those objects and their cultural resources unavailable for future scientific investigation. Clearing, grading, and deeper excavations at the Project Site could result in significant adverse effects to cultural resources. In addition, the construction of supporting facilities, such as construction offices, laydown areas, and parking areas, have the potential to cause adverse effects to cultural resources if they involve additional ground disturbance. Furthermore, past and present actions within the region including highway/roadway construction, commercial and residential development, and off-highway vehicle use have resulted in effects to cultural resources. However, the location and engineering of the Project Site have been specifically designed to avoid effects to cultural resources.

Because a properly designed and implemented mitigation program is used, these potential effects could be reduced such that significant effects are avoided. Assuming mitigation measures are implemented properly, the contribution of the Project is not likely to result in long-term, significant effects. The potential effects of other reasonably foreseeable future projects are unknown as mitigation measures for such projects cannot be determined at this time.

5.7.10 Mitigation Measures

The Project is anticipated to have an effect on NRHP-eligible cultural resources. Mitigation measures have been provided that will reduce potential effects to cultural resources to a less-than-significant level. Also, due to the fact that a high probability exists for buried resources in the area, archaeological monitoring must be conducted during all ground-disturbing activities within the Project Site. Should a potentially eligible cultural resource be encountered, evaluation of this resource to determine significance is required. The mitigation measures and procedures described below would apply to any cultural resources located within the identified Project APE. With implementation of the mitigation measures listed below, effects to cultural resources would be reduced to a less-than-significant level.

All cultural resources monitoring and mitigation will be carried out under the direct supervision of an archaeologist who meets the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (36 CFR Part 61, Appendix A), and will be consistent with the procedures for compliance with 36 CFR 800.

5.7.10.1 Data Recovery

CUL-1

Data recovery to mitigate adverse effects to historic properties will be conducted in accordance with a Historic Properties Treatment Plan approved by BLM, the California Energy Commission, and other consulting parties.

5.7.10.2 Avoidance

CUL-2

In the event cultural resources are encountered before or during construction activities, including subsurface excavation, construction activities in the immediate vicinity of the identified resource

shall be halted, and a qualified archaeologist shall identify the nature and boundary of the finds and assess whether the proposed activities will impinge on a cultural resource. Routes of any access roads that must be built or graded that are outside of areas previously surveyed for cultural resources will be subjected to archaeological survey before construction. In the event the resource is identified as a potentially significant cultural resource, planned construction activities shall be modified to avoid the resource, if feasible. If it is not feasible to avoid the resource, the archaeologist shall identify the proper course of testing, excavation, recovery, and documentation to be undertaken to reduce Project-related effects to a less-than-significant level. In the event that archaeological resources are discovered during the course of construction, activities related to the Project, grading, and/or excavation activities within 100 feet of the potentially significant resource should be monitored by a qualified archaeologist.

5.7.10.3 Preconstruction Assessment and Construction Training

CUL-3

A qualified professional archaeologist shall be retained to monitor all ground-disturbing activities associated with the Project. Ground-disturbing activities include clearing, grubbing, grading, and trenching within the Project Site and construction laydown areas. The archaeological monitor shall visit the Project Site before commencement of construction activities to become familiar with site conditions.

The archaeological monitor shall attend the pre-construction meeting and work with BLM, Solar Two, and the construction management staff to suspend or redirect construction activities if cultural materials are encountered. The archaeological monitor shall also provide training to appropriate construction personnel on the site to explain the importance of and legal basis for the protection of significant archaeological resources.

5.7.10.4 Archaeological Monitoring

CUL-4

The archaeological monitor shall be equipped with a cellular telephone to ensure rapid communication with URS senior cultural resources staff to promptly report any cultural finds or discuss any problems as they are encountered in the field. Archaeological monitors shall keep a daily monitoring log of construction activities, observations, types of equipment used, problems encountered, and any new archaeological discovery (including the cultural material observed and the location). Photographs shall be taken as necessary to supplement the documentation. These logs shall be signed and dated by the archaeological monitor and included within the monitoring report.

The archaeological monitor shall monitor all ground-disturbing activities within the Project Site and construction laydown areas. The archaeological monitor will be authorized to temporarily halt ground-disturbing activities in the immediate vicinity of a discovery in the event that cultural resources are uncovered during construction. Similarly, if the construction staff or others identify cultural resources during construction activities, they shall halt construction in the immediate vicinity and immediately notify the archaeological monitor and Project supervisor.

The archaeological monitor shall then immediately notify URS senior cultural resources staff. The archaeological monitor shall use flagging tape to delineate the area of the find and protect the resources from construction activities. Construction activities shall not take place within the delineated discovery area until the archaeological monitor, in consultation with URS senior cultural resources staff and BLM, can inspect and evaluate the significance of the find and implement mitigation measures, if needed. During this time, construction activities may be redirected to other areas outside of the flagged area.

After all ground-disturbing activities are complete, URS cultural resources staff shall prepare a cultural resources compliance monitoring report. The report shall include the daily monitoring logs as an appendix. The report shall also include the level of effort involved in monitoring cultural resources, a description of activities monitored, and the number and types of new cultural resources discoveries, including assessment and treatment action.

5.7.10.5 Native American Monitoring

CUL-5

To ensure participation by interested members of the Native American community, it is recommended that a Native American monitor be present during archaeological testing and/or data recovery for cultural resources that appear to have a prehistoric or ethnographic component. The monitor will be retained either directly by the Applicant or by the consultant conducting the actual fieldwork.

5.7.10.6 Resource Recordation and Evaluation

CUL-6

The archaeological monitor shall follow accepted professional standards in recording any discovery and shall submit applicable Department of Parks and Recreation forms to the SIC. If the discovery is deemed not significant by URS senior cultural resources staff, construction activities may proceed. Should a potentially significant cultural resource be encountered during monitoring, evaluation of this resource to determine significance will be required. Significant cultural resources affected by the Project would require additional mitigation, which may include data recovery. A recovery of a sample of the deposit from which the archaeologist can define scientific data to address archaeological research questions is considered an effective mitigation measure. URS cultural resources staff shall prepare and carry out a mitigation plan. The mitigation program shall be carried out as quickly as possible to avoid construction delays. Construction may resume on-site as soon as the field data collection phase is completed.

5.7.10.7 Provision for Encountering Human Remains

CUL-7

If human remains are encountered, construction activities shall be immediately halted in the immediate vicinity of the discovery. The Project supervisor shall immediately contact the county

coroner, BLM, and the Applicant. If the remains are Native American, the NAHC shall be contacted. The NAHC is required to determine the most likely descendant, notify that person, and request that they inspect the burial and make a recommendation for treatment and removal.

5.7.10.8 Laboratory Analysis and Curation

CUL-8

Cultural material removed during the course of monitoring or other mitigation measures shall be bagged and catalogued in the field, and analyzed in the laboratory. Cultural materials shall be analyzed to characterize the resource(s) and their association to existing regional chronologies. The materials, and the contexts from which they were sampled, shall also be evaluated with regard to the eligibility criteria for inclusion on the NRHP.

The objectives of laboratory processing and analysis are to determine to the extent possible the date, function, cultural affiliation, and significance of the archaeological sites, and to prepare artifacts for permanent curation. Artifacts shall be processed (i.e., cleaned, catalogued, and analyzed) according to the Secretary of the Interior's Standards and Guidelines for curation (36 CFR 79). Artifacts shall be gently washed using tap water and a soft toothbrush. Delicate and/or unstable materials, such as decayed metal and organic material, shall be carefully dry-brushed with a soft toothbrush. After drying, artifacts shall be analyzed, catalogued, and rebagged according to provenience and type. Artifacts shall have acid-free paper labels with full provenience information, including the state site number, catalog number, shovel test pit or test unit number, stratum, and date. All artifact information shall be entered into a customized computer-based application.

All artifacts, monitoring logs, and photographs are the property of BLM and shall be placed in appropriately labeled boxes for temporary storage at URS. As part of mitigation requirements, final curation shall be wherever BLM shall direct.

5.7.10.9 Physical

CUL-9

In instances where a Project facility must be placed within 100 feet of a known cultural resource previously found eligible for inclusion on the CRHR, the cultural resource will be temporarily fenced or otherwise demarcated on the ground, and the area will be considered environmentally sensitive. Construction equipment will be directed away from the cultural resource and construction personnel will be directed to avoid entering the area. Where cultural resource boundaries are unknown, the protected area will include a buffer zone with a 100-foot radius. In some cases, additional archeological work may be required to demarcate the boundaries of the cultural resource to ascertain whether the cultural resource can be avoided.

5.7.11 Compliance with LORS

The Project shall be conducted in a way consistent with all applicable laws, ordinances, regulations, and standards (LORS). Any cultural resources potentially affected by the Project are subject to compliance with the provisions outlined in Section 106 of the National Historic Preservation Act, due to their location on BLM-administered public land. All applicable LORS are summarized in Table 5.7-4, Summary of LORS – Cultural Resources.

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Federal Jurisdiction | | | | |
| National Historic Preservation Act of 1966 as amended, Public Law 102-575 | Requires preservation or mitigation of effects to historic properties that are eligible for inclusion on the National Register of Historic Places | Section 5.7.8.1 | BLM; State Historic Preservation Office | Carrie L. Simmons Archaeologist El Centro Field Office BLM 1661 South 4 th Street El Centro, CA 92243 760-337-4437 |
| Archaeological Resources Protection Act of 1979 as amended, Public Law 96-95 | Provides for the protection of archaeological resources and sites that are on public lands and Indian lands. | Section 5.7.10 | BLM | Carrie L. Simmons |
| Federal Land Policy and Management Act of 1976 as amended, Public Law 94-579 | Establishes policies and goals to be followed in administration of public lands by the Bureau of Land Management to include preservation of historic and archaeological resources. | Section 5.7.10 | BLM | Carrie L. Simmons |
| Native American Graves Protection and Repatriation Act, Public Law 101-601 | Requires federal agencies and institutions that receive federal funding to return Native American cultural items and human remains to their respective peoples. Cultural items include funerary objects, sacred objects, and objects of cultural patrimony. | Section 5.7.10 | BLM | Carrie L. Simmons |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|-----------------------|
| Antiquities Act of 1906, as amended | Prescribes penalties for the theft or destruction of archaeological resources on public land and establishes procedure for issuance of permits for the conduct of research on cultural resources on public land. | Section 5.7.11.1 | BLM | Carrie L. Simmons |
| Executive Order No. 11593: Protection And Enhancement Of The Cultural Environment, 1971 | Requires Federal agencies to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations, initiate measures necessary to direct their policies, plans, and programs in such a way that federally owned sites, structures, and objects of historical, architectural, or archaeological significance are preserved, restored, and maintained and institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance. | Section 5.7.11.1 | BLM | Carrie L. Simmons |
| National Environmental Policy Act of 1969, as amended, Public Law 91-190 | Requires the analysis of the effect of federal undertakings on the environment to include the effect on cultural resources. | Section 5.7.11.1 | BLM | Carrie L. Simmons |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State Jurisdiction | | | | |
| The Warren-Alquist Act 1974, as amended | Requires cultural, historic, and aesthetic resources be taken into account in consideration of an Application for Certification. Requires that a portion of any such resources on public land be set aside for public access. | Section 5.7.11.2 | CEC | Michael McGuirt Heritage Resource Analyst California Energy Commission Energy Facilities Siting Division Environmental Office 1516 9 th Street, MS 40 Sacramento, CA 95814-5512 916-654-4870 |
| CEQA of 1970, as amended | Applies to discretionary projects causing a significant effect on the environment and a substantial adverse change in the significance of a historical or archaeological resource. | Section 5.7.11.2 | CEC | Michael McGuirt |
| California PRC Section 5020-5029.5 | Establishes the criterion for the California Register of Historical Resources, and creates the California Historic Landmarks Committee and authorizes the Department of Parks and Recreation to designate Registered Historical Landmarks and Registered Points of Historical Interest; establishes criteria for the protection and preservation of historic resources. | Section 5.7.11.2 | CEC; State Historic Preservation Office; Department of Parks and Recreation | Michael McGuirt Milford Wayne Donaldson Fellow of the American Institute of Architects, State Historic Preservation Officer California Department of Parks and Recreation Office of Historic Preservation 1416 9 th Street, Room 1442 Sacramento, CA 95814 P.O. Box 942896 Sacramento, CA 94296-0001 |
| Senate Bill 922 (Ducheny 2005) | Exempts from California Public Records Act Native American graves, cemeteries, archaeological site information, and sacred places in the possession of the Native American Heritage Commission and other state or local agencies. | Section 5.7.11.2 | CEC; Native American Heritage Commission | Michael McGuirt Larry Myers Native American Heritage Commission Executive Secretary 915 Capitol Mall, Room 364 Sacramento, CA 95814 916-653-4082 |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Senate Bill 18 (Burton 2004) | Protection and preservation of Native American Traditional Cultural Places during city and county general plan development. | N/A | CEC; County of San Luis Obispo; Native American Heritage Commission | Michael McGuirt |
| Senate Concurrent Resolution Number 87 (1994) | Provides for the identification and protection of traditional Native American resource gathering sites on state land. | N/A | CEC | Michael McGuirt |
| Administrative Code, Title 14, Section 4307 | No person shall remove, injure, deface, or destroy any object of paleontological, archaeological, or historical interest or value. | Section 5.7.11.2 | CEC | Michael McGuirt |
| Government Code, Sections 6253, 6254, 6254.10 | Disclosure of archaeological site information is not required for records that relate to archaeological site information maintained by the Department of Parks and Recreation, the State Historical Resources Commission, or the State Lands Commission. | Section 5.7.11.2 | CEC | Michael McGuirt |
| Health and Safety Code, Section 7050.5 | Requires construction or excavation to be stopped near human remains until a coroner determines whether the remains are Native American; requires the coroner to contact the NAHC if the remains are Native American. | Section 5.7.11.2 | CEC; County Coroner | Michael McGuirt Sergeant Charles Lucas Imperial County Sheriff/Coroner P.O. Box 1040 El Centro, CA 92244 760-339-6311 |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|-------------------------------------------|
| Health and Safety Code, Section 7051 | Establishes removal of human remains from interment, or from a place of storage while awaiting interment or cremation, with the intent to sell them or to dissect them with malice or wantonness as a public offense punishable by imprisonment in a state prison. | Section 5.7.11.2 | CEC; County Coroner | Michael McGuirt Sergeant Charles Lucas |
| Health and Safety Code, Section 7052 | States that willing mutilation of, disinterment of, removal from a place of disinterment of, and sexual penetration of or sexual contact with any remains known to be human are felony offenses. | Section 5.7.11.2 | CEC; County Coroner | Michael McGuirt Sergeant Charles Lucas |
| Penal Code, Title 14, Section 622.5 | Misdemeanor offense for any person, other than the owner, who willfully damages or destroys archaeological or historic features on public or privately owned land. | Section 5.7.11.2 | CEC | Michael McGuirt |
| PRC 5097-5097.6 | Provides guidance for state agencies in the management of archaeological, paleontological, and historical sites affected by major public works project on state land. | Section 5.7.11.2 | CEC | Michael McGuirt |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRC 5097.9-5097.991 | Establishes regulations for the protection of Native American religious places; establishes the Native American Heritage commission; California Native American Remains and Associated Grave artifacts shall be repatriated; notification of discovery of Native American human remains to a most likely descendent. | Section 5.7.11.2 | CEC; State Historic Preservation Office; Tribal Historic Preservation Office; Native American Heritage Commission | Michael McGuirt Milford Wayne Donaldson Agua Caliente Band of Cahuilla Indians Richard M. Begay, THPO 5401 Dinah Shore Drive Palm Springs, CA 92264 760-325-3400, Extension 6906 |
| CCR Section 1427 | Recognizes that California’s archaeological resources are endangered by urban development; the Legislature finds that these resources need preserving; it is a misdemeanor to alter any archaeological evidence found in any cave, or to remove any materials from a cave. | Section 5.7.11.2 | CEC | Michael McGuirt |
| Senate Concurrent Resolution Number 43 | Requires all state agencies to cooperate with programs of archaeological survey and excavation, and to preserve known archaeological resources whenever reasonable. | Section 5.7.11.2 | CEC | Michael McGuirt |
| Penal Code, Title 14, Section 622.5 | Misdemeanor offense for any person, other than the owner, who willfully damages or destroys archaeological or historic features on public or privately-owned land. | Section 5.7.11.2 | CEC | Michael McGuirt |

**Table 5.7-4
Summary of LORS – Cultural Resources**

| LORS | Requirements | Conformance Section | Administering Agency | Agency Contact |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Local Jurisdiction | | | | |
| Imperial County General Plan, Conservation/ Open Space Element | Identify, preserve and protect locally significant cultural resources, and preserve prehistoric and historic areas as open space. | Section 5.7.11.3 | Imperial County Planning Department | Jurg Heuberger American Institute of Certified Planners, Director 939 Main Street El Centro, CA 92243 760-339-4236 |

Source: URS Corporation, 2008a.

Notes:

- BLM = Bureau of Land Management
- CCR = California Code of Regulations
- CEC = California Energy Commission
- CEQA = California Environmental Quality Act
- LORS = laws, ordinances, regulations, and standards
- N/A = not applicable
- PRC = Public Resources Code
- THPO = Tribal Historic Preservation Officer

5.7.11.1 Federal

The Project is mostly located on BLM-administered public land. Therefore, all treatment of cultural resources will be consistent with Section 106 of the National Historic Preservation Act per 36 CFR Part 800, and any other applicable federal LORS.

5.7.11.2 State

Table 5.7-4, Summary of LORS – Cultural Resources, summarizes the cultural resources state-level LORS that may be applicable to the Project.

5.7.11.3 Local

Imperial County has specific LORS that also determine the treatment of cultural resources identified and recorded in the county. Table 5.7-4, Summary of LORS – Cultural Resources, summarizes the local-level LORS.

5.7.12 Agencies and Agency Contacts

Agencies with jurisdiction to issue applicable permits and/or enforce LORS related to cultural resources are shown in Table 5.7-5, Agency Contact List for LORS.

**Table 5.7-5
Agency Contact List for LORS**

| | Agency | Contact | Address | Telephone |
|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------|
| 1 | Bureau of Land Management | Rolla Queen | Bureau of Land Management 22835 Calle San Juan De Los Lagos Moreno Valley, CA 92553 | 951-697-5386 |
| 2 | Bureau of Land Management | Carrie Simmons | Bureau of Land Management 1661 South 4 th Street El Centro, CA 92243 | 760-337-4437 |
| 3 | California Energy Commission | Michael McGuirt | California Energy Commission 1516 9 th Street Sacramento, CA 95814-5512 | 916-654-4870 |
| 4 | SHPO California Department of Parks and Recreation Office of Historic Preservation | Milford Wayne Donaldson, Fellow of the American Institute of Architects | 1416 9 th Street, Room 1442 Sacramento, CA 95814 P.O. Box 942896 Sacramento, CA 94296-0001 | 916-653-6624 |
| 4 | Imperial County Sheriff/ Coroner | Sargeant Charles Lucas | P.O. Box 1040 El Centro, CA 92244 | 760-339-6311 |
| 5 | Native American Heritage Commission | Larry Myers, Executive Secretary | 915 Capitol Mall, Room 364 Sacramento, CA 95814 | 916-653-4082 |
| 6 | Agua Caliente Band of Cahuilla Indians | Richard M. Begay, THPO | 5401 Dinah Shore Drive Palm Springs, CA 92264 | 760-325-3400 Extension 6906 |
| 7 | American Institute of Certified Planners | Jurg Heuberger, Director | 939 Main Street El Centro, CA 92243 | 760-339-4236 |

Source: URS Corporation, 2008a.

Notes:

SHPO = State Historic Preservation Officer

THPO = Tribal Historic Preservation Officer

5.7.13 Permits Required and Permitting Schedule

No permits are required for cultural resources for the Project.

5.7.14 References

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| Adequacy Issue: | | Adequate | Inadequate | DATA ADEQUACY WORKSHEET | | | Revision No. | 0 | Date |
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| Technical Area: | | Cultural Resources | | | Project: Solar Two Project | | | Technical Staff: | |
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| SITING REGULATIONS | | INFORMATION | | | AFC SECTION NUMBER | ADEQUATE YES OR NO | INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS | | |
| Appendix B (g) (1) | ...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation. | | | | Section 5.7.1.1 Section 5.7.9 Section 5.7.10 | | | | |
| Appendix B (g) (2) (A) | A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location. | | | | Section 5.7.1.6 Section 5.7.2 Section 5.7.3 | | | | |
| Appendix B (g) (2) (B) | The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed. | | | | Section 5.7.5 | | | | |

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| | | <p>Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.</p> | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | |

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| Appendix B (g) (2) (C) | | <p>The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> | | <p>Section 5.7.4 Section 5.7.5 Table 5.7-1 Table 5.7-2</p> <p>Section 5.7.6 Table 5.7-3</p> | | | | | | |

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| | | A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included). | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (C) cont. | | Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, the technical report shall include the following: | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (C) (i) | | The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B); | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (C) (ii) | | The survey procedures and methodology used to identify cultural resources and a discussion of the cultural resources identified by the survey; | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (C) (iii) | | Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource; | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (C) (iv) | | A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii); and | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |

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| Appendix B (g) (2) (C) (v) | The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report. | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (D) | Provide a copy of your request to the Native American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses. | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (E) | Include in the discussion of proposed mitigation measures required by subdivision (g)(1): | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (E) (i) | A discussion of measures proposed to mitigate project impacts to known cultural resources; | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (E) (ii) | A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |
| Appendix B (g) (2) (E) (iii) | Educational programs to enhance employee awareness during construction and operation to protect cultural resources. | | | Appendix Z, Cultural Resources Technical Report (Confidential) | | | | | |

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| Appendix B (i) (1) (A) | | Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and | | Section 5.7.11 Table 5.7-4 | | | | | |
| Appendix B (i) (1) (B) | | Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities. | | Section 5.7.11 Table 5.7-4 | | | | | |
| Appendix B (i) (2) | | The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff. | | Section 5.7.12 Table 5.7-5 | | | | | |
| Appendix B (i) (3) | | A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits. | | N/A | | | | | |

