

5.7 CULTURAL RESOURCES

This section analyzes the potential impacts the San Joaquin Solar 1 and 2 (SJS 1&2 or the Project) may have on known or previously unrecorded cultural resources located within the Areas of Potential Effects (APE). Cultural resources include prehistoric resources; historic buildings, structures, objects, districts, and sites; as well as, sites and resources of concern to Native Americans 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, 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 surrounding the Project footprint and a ¼-mile area on either side of the transmission line corridors; results of the archaeological and historic architecture pedestrian surveys of the APEs; and Native American consultation. Complete documentation of the cultural resources assessment is appended in the archaeological survey report (Confidential Appendix G, Cultural Resources).

Study results indicate that the Project will not have any adverse effects to cultural resources eligible for the California Register of Historical Resources (CRHR) or local registers within the APEs. In the event of the discovery of CRHR- or local register-eligible cultural resources within the APEs during the Project construction phase, appropriate mitigation measures (as set forth in this section) will be employed to ensure site 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 performed in accordance with the Warren-Alquist State Energy Resources Conservation and Development Act, Public Resources Code (PRC), Section 25000 *et seq.*; Instructions to the CEC 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). Additionally, this study was done in accordance with CEQA, PRC Section 21000 *et seq.*, and the California Code of Regulations (CCR) Title 14, Chapter 3, Section 15000.

5.7.1 Affected Environment

5.7.1.1 Project Area

The Project Area, located in the southwestern portion of Fresno County (Figures 5.7-1, 5.7-2), consists of two components: the Project footprint (which encompasses 640 acres) and two transmission line corridors (a northern and southern line) that total approximately 12.4 miles in length. The Project footprint (which is the proposed location of the solar hybrid facility) is located entirely within Section 3 of Township 21 South, Range 16 East, as depicted on the Guijarral Hills and Avenal USGS 7.5-minute series quadrangle maps, and is located immediately south of Jayne Avenue. The transmission line corridors are located within Sections 1 and 2 of Township 21 South, Range 16 East and Sections 3, 4, 5, and 6 of Township 21

South, Range 17 East, as depicted on the Gujarral Hills, Avenal, and Huron USGS 7.5-minute series quadrangle maps (Mount Diablo Base Meridian [M.D.B.M.]). The northern transmission line corridor is approximately 5.4 miles long within an existing right-of-way along the south side of Jayne Avenue from the northeast corner of the Project footprint to the Gates substation. The southern transmission line corridor is approximately 7 miles long and extends from the southeast corner of the Project footprint (one-mile south of Jayne Avenue) along the southern borders of Sections 1, 2, 4, 5, and 6, and then heads north towards Jayne Avenue and the northern transmission line corridor between Sections 4 and 5, and Sections 3 and 4.

5.7.1.2 Areas of Potential Effects

There were two APEs for the SJS 1&2: an archaeological APE and a historic architecture APE. The archaeological APE included the Project Area, which consisted of the Project footprint and an additional 200 feet around the footprint, as well as the northern and southern 200-foot wide transmission line corridors (each has a 100-foot wide right-of-way and, per CEC regulations, an additional 50-foot buffer on either side of the corridors). The historic architecture APE included the Project Area, which consisted of the Project footprint and the northern and southern transmission line corridors, and an additional ½-mile around the Project area. The delineation of both the archaeological and historic architecture APEs were performed in accordance with the CEC Rules of Practice and Procedure and Power Plant Site Regulations Revisions, Appendix B (g)(2)(C) (CEC 2007). Figure 5.7-3 is a map of the APEs.

5.7.1.3 Physiography

The Project Area is located in Pleasant Valley, on the edge of the Gujarral Hills, on the western margins of the San Joaquin Valley, approximately 20 miles north of the southwest corner of Fresno County. Pleasant Valley is flanked on the west by the South Coast Ranges. The South Coast Ranges is a region of the Coast Ranges Physiographic Province (California Department of Conservation 2002).

Pleasant Valley is a southeast to northwest trending valley with an elevation of approximately 600 feet. Los Gatos and Warthan Creeks drain portions of the Diablo Ranges to the west of the valley and provide the bulk of the water, though several lesser creeks contribute from around the valley edge. The valley is ultimately drained to the east by Los Gatos Creek and into the San Joaquin Valley.

The Project Area is located within the western edge of Pleasant Valley. The Project Area drains the Gujarral Hills on the northeast and in turn drains into Zapato Chino Creek located to the southeast and subsequently into the San Joaquin Valley. Elevations of the Project Area range from a low of 570 feet above msl in the southeast to a high of 640 feet msl in the northeast.

The proposed transmission line corridors have their western origins at the northeast and southeast corners of the Project Area in the Gujarral Hills from where it aligns eastward into the San Joaquin Valley.

California's diverse environment is separated into 10 different bioregions. The Project Area lies within the San Joaquin Valley Bioregion, near the eastern boundary of the Central Coast Bioregion. The San Joaquin Valley Bioregion is characterized by vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Rare plants in the bioregion include Mason's lilaepsis, San Joaquin woolly threads, and California hibiscus (*Ceres n.d.*). The Central Coast Bioregion

is characterized by a mild, seasonally moist, and sometimes foggy climate that favors rich farmland and vineyards. The bioregion has coastal mountain ranges (including the San Lucia and Santa Ynez) and coastal sand dunes. Vegetation in the Central Coast Bioregion includes chaparral, mixed hardwood, and redwood forests in the bioregion's northern coastal area and oak woodlands. Los Padres National Forest covers much of the southern portion of the Central Coast Bioregion.

5.7.1.4 Soils and Geology

Please refer to the Section 5.3, Geological Hazards and Resources and Section 5.4, Soils, respectively, for detailed descriptions of regional geology and soil conditions.

5.7.1.5 Existing Conditions

The Project Area is distinctly rural in nature with the landscape's environs characterized by ranching sheep and cattle (*e.g.*, grazing, rangeland); cultivation of agricultural products (*e.g.*, wheat); and petroleum extraction facilities. Much of the landscape has been affected and disturbed by extensive dry-land agricultural practices (*e.g.*, seasonal plowing) and the landscape does not generally resemble its natural environment. Most buildings and structures are dilapidated storage sheds, garages, and residences; storage tanks and silos; storage facilities; transmission line corridors and power facilities (*e.g.*, Gates Substation); petroleum extraction facilities; and public buildings.

The Project Area is approximately 6 miles due east of the City of Coalinga. The Project Area is within a predominantly agricultural area primarily divided by section line roads. Jayne Avenue, an east-west thoroughfare provides the northern boundary of the Project footprint and the northern transmission line corridor. The northeast quadrant of the Project Area and the first mile of the transmission line corridors are dominated by the Gujarral Hills. The Gujarral Hills are the location of past and ongoing petroleum extraction. The remainder of the transmission line corridors is located within relatively level alluvial deposits.

5.7.1.6 Site Disturbance within the Project Area and APEs

The primary sources of the previous surface and subsurface disturbance in and adjacent to the Project Area are related to:

- Agricultural activity including grazing, plowing, and planting;
- Petroleum extraction facilities and pipelines;
- Public and private buildings and structures construction; and
- Road construction.

5.7.1.7 Prehistoric Context

5.7.1.7.1 Paleo-Indian Period (12,000 to 10,000 B.P.)

The Paleoindian Period was an era of environmental transition between the late Pleistocene and early Holocene. The beginning of the Paleoindian Period was characterized by increased rainfall and cooler temperatures, which formed deep lakes and marshes, even in the interior desert regions of California. As temperatures warmed at the start of the Holocene, glaciers slowly retreated, sea levels rose, and the interior lakes and marshes gradually evaporated over the millennia (Moratto 1984:78). During this time period two distinct traditions have been identified; the Fluted Point Tradition (FPT) and the Western Pluvial Lakes Tradition (WPLT) (Moratto 1984:93). Although the traditions have overlapping time frames the FPT arose earlier and is estimated to range between 12,000 and 11,000 before present (B.P.). The FPT extended across much of the North American continent. The WPLT, perhaps having evolved from the FPT, ranged roughly between 11,000 and 10,000 B.P. (Milliken 2006:19). The WPLT occurred in the western Great Basin (Moratto 1984:90).

The FPT, as indicated by its name, is characterized primarily by large, fluted projective points, of which the only variety seen in California has been the Clovis point (Moratto 1984:80). This type of point is linked to the practice of hunting big game, such as mammoth, bison, horse, camelids, and sloth (Moratto 1984:79). However, many other subsistence options were also available at this time and utilized. FPT sites were frequently located near former marshes, lakes, and streams, which would have provided much in terms of fish, shellfish, edible plants, fowl and their eggs, and small mammals (Moratto 1984:88). With such an abundance of resources, it is unlikely that human populations were completely dependant on big game. Roughly 25 miles away from the Project Area, evidence of heavily populated FPT sites has been found near the old shorelines of Tulare Lake (Moratto 1984:81).

These subsistence resources were increasingly relied upon as the environment gradually changed. Mass extinctions of animals limited the amount of big game available for hunting. It is unknown if these extinctions were due to warming temperatures, introduction of new diseases, overkill by human populations, or a mixture of these factors (Moratto 1984:89). However, the shift to WPLT is notably marked by a decrease in big game hunting. The WPLT developed a more refined flake stone industry distinguished by percussion-flaked foliate knives and points which replaced the large fluted Clovis points (Moratto 1984:93). A wider variety of stone tools was developed, including an assortment of chipped-stone crescents, scrapers, choppers, scraper-planes, hammerstones, drills, and graters (*ibid*). Still, millingstones are conspicuously absent from these sites, implying that hard seeds, which would require grinding, were not included in the diet (*ibid*).

Even with decreasing availability of big game, the abundance of food sources, provided by the wetlands, was sufficient to increase human populations and may even have been plentiful enough to support people year-round. Roughly 85 miles southeast from the Project Area, evidence of a deeply buried WPLT site was found in the lower components of CA-KER-116 near Buena Vista Lake (Moratto 1984: 99).

5.7.1.7.2 The Early Period (10,000 to 7,000 B.P.)

Early Period components have been identified along the fossil lakeshores of Tulare Lake and Buena Vista Lake, in the east central and southwestern portions of the San Joaquin Valley, respectively. Lithic artifact

assemblages associated with the Early Period are characterized by the presence of stemmed projectile points. These have also been recovered from several sites in the foothills at the margins of the valley, namely at the Skyrocket sites (CA-CAL-629 and -630) in the Calaveras County foothills, and at the Clark's Flat site (CA-STA-342) in the Stanislaus County foothills. Other Early Period lithic artifacts include cobble core tools (choppers and scrapers) and flake tools, as well as crescentics, leaf-shaped, ovate, and lanceolate bifaces. Groundstone artifacts of this period are typically expedient, showing light use wear, and often exhibit multiple forms of use wear.

5.7.1.7.3 The Middle Period (7,000 to 2,500 B.P.)

The Middle Period is characterized by an increase in groundstone implements and by "Pinto" or "Stanislaus Stemmed" projectile points (Peak and Crew 1990). These points have been recovered at upper levels of CA-KER-116, the Witt site, the Skyrocket sites, and the Clark's Flat site. Although traditional hunting and gathering techniques were still important, a new resource, hard seeds, began to comprise a large part of the diet. Such seeds, generally taken from wild grasses in this area, required grinding before they could be eaten, so millstones used for grinding characterize archaeological sites of this period (Fagan 2003:27; Moratto 1984:124). By 4,500 B.P., processing acorns was commonly practiced (as indicated by the addition of mortar and pestle to the material culture), and acorn meal became a dietary staple. Acorn processing was a labor-intensive procedure involving grinding the acorns into a fine meal and then repeatedly running boiling water through this meal to leach out the natural tannins in the acorns (Fagan 2003:27).

5.7.1.7.4 The Late Period (2,500 B.P. to European Contact)

The Late Period refers to the time period between approximately 2,500 B.P. and European contact, at which time Native American lifeways were recorded in the ethnographic/historic record. The material culture patterns observed at contact emerged during the Late Period, and the ethnohistoric record provides a valuable resource for understanding Late Period archaeology (see below). The archaeological record for the Late Period reveals a significantly different suite of material culture than that seen in Middle Period assemblages. Heavily utilized mortar and pestle technology (associated primarily with acorn processing), and bow and arrow technology both emerge during the Late Period. Large occupation sites, representing semi-permanent and permanent villages, emerge during this time as well. On the western margins of the San Joaquin Valley, these village sites typically feature dark-colored midden deposits, multiple excavated house pit depressions, and large, excavated communal structures. Other artifacts typical of Late Period deposits include freshwater and marine shell ornaments, ornaments and utilitarian implements of steatite and faunal bone, obsidian from eastern California sources, and notched cobbles thought to be associated with fishing and/or casting nets.

5.7.1.8 Ethnography

The Project Area is located in the area defined as the province of the Southern Valley Yokuts, but not far from the boundaries with the Northern Valley Yokuts to the north and the Salinan to the west. The ethnic groups engaged in trade and at various times probably coexisted along the margins of the San Joaquin Valley and the Coast Ranges. The data and discussion below are primarily drawn from Wallace (1978: 448-461).

5.7.1.8.1 Yokuts

Yokuts is a term applied to the indigenous peoples inhabiting the San Joaquin Valley and Sierra Nevada foothills of central California. The “Southern” Yokuts tribes inhabited the southern or lower end of the San Joaquin Valley, from the lower Kings River to the Tehachapi Mountains, and formed the nucleus of a culture that differed in significant respects from that of the northern and foothill Yokuts tribes. The Southern Yokuts homeland included Tulare, Buena Vista and Kern Lakes, their connecting sloughs, and the lower portions of the Kings, Kaweah, Tule, and Kern Rivers (Wallace 1978:448). Ethnohistoric Yokuts tribes occupying the Buena Vista Lake area were known as the *Tulamni*, while the *Chuxoxi* inhabited the channels and slough areas of the Kern River delta. Within Pleasant Valley, there were apparently no permanent settlements (Kroeber 1925), though the villages of *Golon* and *Udjiu* lie to the east within the *Tachi* tribal area.

The Southern Valley Yokuts were encountered by the Spaniards soon after they settled in California. In the fall of 1772, Pedro Fages led a small band of soldiers through Tejon Pass and down into the southernmost part of the San Joaquin valley. He visited a native village on the shores of Buena Vista Lake before continuing his westward journey to Fresno. After a visit by the Friar-explorer, Francisco Garces in 1776, there was infrequent contact between the Spanish and the Yokuts for some three decades.

A new series of Spanish expeditions into the interior began in 1806. No ranchos were established in the lake country and the Mexican influence on the tribes appears to have been slight. However, in 1833, an epidemic (possibly malaria) of unusual severity devastated the native population, with an estimated mortality rate of 75 percent.

The influx of Europeans shortly after the 1848 annexation of California by the United States, rapidly led to cultural breakdown and the near-total disappearance of Yokuts from the lower San Joaquin Valley. Settlers seeking farm and ranch lands soon occupied the countryside and either drove out or suppressed the remaining Yokuts. Survivors went to the Tejon reservation, established at the base of the Tehachapi Range, or to the Fresno Reservation near Madera. Tejon Rancheria was abandoned in 1859 and the occupants taken to Tule River. In 1873, this reservation was specifically set apart for them. By 1905, the reservation population, mostly members of the Southern Valley Yokuts tribes with a few Foothill Yokuts, numbered only 154.

5.7.1.9 Historic Period

5.7.1.9.1 Spanish Period (1540 to 1821)

The Spanish had explored much of the California coast and both the San Francisco and the Monterrey Bays by 1769, but little attention was paid to the interior of California. Spanish expeditions reported that California’s interior valleys were “bleak, arid expanses of land” (Clough and Secrest 1984:25). Several factors were detrimental to European exploration of the San Joaquin Valley; travel and communication were slow, there were few roads and trails, and no maps and supply stations existed in California’s interior. Forty-six years passed since the first mission was founded in Alta California before the first Europeans entered present-day Fresno County. In 1805 and 1806, Spain’s Lieutenant Gabriel Moraga’s led several expeditions through the valley, leaving from the Presidio of San Francisco in order to search for new mission sites in California’s interior. Although no missions were ever founded by the Spanish in Fresno

County and there is no written record of Moraga's expeditions, his expeditions did result in the creation of many of the San Joaquin Valley's place names, including the San Joaquin Valley and the two major rivers in Fresno County, the Kings and San Joaquin Rivers (Virtual Lodi 2000).

During Moraga's 1806 expedition, he came across swarms of yellow butterflies north of the Project Area near Chowchilla and named this area Mariposa, which is Spanish for butterfly. When California was granted statehood in 1850, Mariposa County covered much of the San Joaquin Valley, including the Project Area. It was the largest county in California, covering approximately one-fifth of the state (Fresno County Sesquicentennial 2006).

In the early 1800s, a trail, known as El Camino Viejo, was developed by the Spanish, stretching from San Pedro, near Los Angeles, to San Antonio, near present day East Oakland, running through Fresno County. Well-known watering holes dotted the route of this trail, including several in western Fresno County, such as Arroyo do la Polvaduras, Arroyo de Zapato, Chino, Jacalitos, Arroyo Cantua, Arroyo de Panoche Grande, and Arroyo de Panochita.

Settlement, in the form of land grants and pueblos, occurred primarily on California's coast, west of the Project Area. Although anecdotes exist of the interior of California once being part of a large Spanish land grant, this could not be confirmed. A review of the California State Archives, United States Surveyor General for California: Spanish and Mexican Land Grant Maps, 1855-1875 has no listing for this rancho (California State Archive 2007).

During the first half of the 19th century, small Hispanic communities consisting of Spanish, Mexican and Chilean residents were formed in the western portion of what is today Fresno County. Hispanic communities were established along the route of El Camino Viejo: La Libertad, Las Juntas, Rancho de Los Californias, and Posa Chine, which is located east of the Project Area (Clough and Secrest 1984). Posa Chine has been spelled many different ways, but probably meant waterhole of the Chine, a Native American tribelet in the area, because it lies at the confluence of three creeks—the Jacalitos, Los Gatos and Warthan (Clough and Secrest 1984). When Anglo settlers began to arrive in greater numbers in the 1870s, they reported that several Spanish-speaking families had been living in Posa Chine and elsewhere in Pleasant Valley for many years.

5.7.1.9.2 Spanish and Native American Relations

During the Spanish Period, no permanent European settlements were founded in the San Joaquin Valley and trappers did not venture eastward from the coast until the mid 1820s. Also, the closest mission, Mission San Juan Bautista, founded in 1797, was too far away (approximately 100 miles) to have an everyday effect on the Native Americans living within Fresno County. Mission San Juan Bautista was very prosperous, specializing in livestock, including cattle, sheep, and horses. Both the construction and upkeep of the adobe mission and the raising of livestock required a large amount of labor, which was provided by coastal Native Americans.

Many coastal Native Americans were able to escape the mission system by moving eastward into the San Joaquin Valley and the foothills of the Sierra Nevada Mountains. Although there was little contact between the Spanish missions on the coast and the Native Americans inhabiting Fresno County, both the mission system and the Spanish military had a detrimental effect on the Native American population

The Chana Valley Yokuts lived in the vicinity of the Project Area before European and American settlement of Fresno County. Although there was infrequent direct contact between the Spanish and Native Americans, in less than a century after the Spanish mission system was begun in Alta California in 1769, the Native American population in Fresno County had been decimated. Native Americans were kidnapped, sold into slavery, robbed, beaten, maimed, raped, and killed (Clough and Secrest 1984). Defecting soldiers from both Monterrey and Santa Barbara fled into the San Joaquin Valley. Venereal diseases were inflicted upon Native Americans from these contacts. In 1804, Father Juan Martin, a priest visiting the San Joaquin Valley, reported that these diseases were epidemic throughout California's interior (*ibid*).

In addition, Native Americans from the San Joaquin Valley infrequently raided Spanish settlements on the coast. In 1815, Master Sergeant Don Juan de Ortega left Mission San Juan Bautista, the closest mission to the Project Area, in order to find and punish the Native Americans responsible for these raids. However, the Native American groups learned of the approaching Spanish soldiers and abandoned their villages, thereby escaping Spanish punishment. In 1825, another expedition was sent to Fresno County under Sergeant Jose Dolores Pico, to revenge raids on Spanish settlements along the coast. This expedition was much more successful and many Native Americans from the valley and escaped neophytes from Mission San Juan Bautista were taken back to the mission as slaves. In this raid, only men were taken to the missions as laborers. Women and children were left in the valley (Clough and Secrest 1984).

5.7.1.10 Mexican Period (1821 to 1848)

5.7.1.10.1 Secularization of the Missions

By 1810, an independence movement began as many rancheros sought to split Mexico (and California) from Spain. In 1821, this desire came to fruition as New Spain (Mexico) became independent. Following Mexico's independence, the Alta and Baja California missions received less financial support from Spain and Mexico. Ultimately, independence from Spain was a catalyst for Mexico to secularize the Alta and Baja California missions. Secularization would free vast amounts of land under mission control and the land would become civilian pueblos or large land grants awarded to Mexican, American, or European settlers. On January 6, 1831, Governor Jose Maria Echeandia announced the secularization of a number of missions, and by 1834, all the missions were secularized (Rolle 2003). In 1834, an attempt was made to transform Mission San Juan Bautista into a pueblo. Without the slave labor provided by Native Americans and support from the church, the mission buildings fell into disrepair and many of the Native American inhabitants fled to the interior valleys, including the Fresno area (Elliot 1882).

5.7.1.10.2 Trapping Expeditions and Early Ranchos

By the 1820s, the Tulare, San Joaquin and Sacramento Valleys were infrequently occupied by trappers as beavers became scarcer along the coast. Throughout the Mexican Period, several large trapping expeditions passed through Fresno County. These expeditions were led by Anglo-Americans who received permission from the Mexican Government to enter California's interior valleys.

In 1826, Jedediah Smith led a trapping party into Fresno County, following the San Joaquin River and its tributaries. His expedition was very profitable and although he was killed in 1831, news of his success at

fur trapping in the San Joaquin Valley spread (Elliot 1882). Between 1827 and 1838, as many as four hundred English, French, and American trappers entered California's interior in search of beaver and otter pelts (Clough and Secrest 1984).

During 1832-1833, Ewing Young led another large trapping expedition into the Fresno area. A member of Young's expedition, Colonel John J. Warner, kept an expedition diary. He reported seeing dead bodies under every tree and only six to eight living Native Americans throughout the expedition. He attributed this high death rate to a malaria outbreak during the year of 1832 (Clough and Secrest 1984).

It is reported that only one Anglo-American settler permanently resided in Fresno County before the Mexican-American War. In 1837, Dr. John Marshall settled at the foot of Mount Diablo. Marshall opened a small outpost that provided supplies for wandering trappers and others passing through the San Joaquin Valley. For many years he was the only permanent American resident of the valley (Clough and Secrest 1984).

The largest land grant in what would become Fresno County was granted on January 10, 1846 to Manuel Castro by the Mexican Governor Pio Pico. Castro's land grant covered approximately 50,000 acres, most of which was contained in the present day borders of Fresno County. The legality of the land grant was argued over throughout the Mexican Period and finally settled by the United States Supreme Court in 1866, when it was officially approved. Castro never lived on the land and primarily used the land as collateral to borrow money. Portions of the land grant were deeded several times over the years by Castro and it is not clear whether all of the mortgages and deeds were ever paid back (Clough and Secrest 1984). A review of the California State Archives (2007), United States Surveyor General for California: Spanish and Mexican Land Grant Maps, 1855-1875 has no listing for this rancho under the name Manuel Castro. The exact borders of this land grant are unknown. Although there were Hispanic settlers in the Pleasant Valley area near the Project Area during the Mexican Period, no land grants were discovered.

5.7.1.11 American Period

5.7.1.11.1 Early Land Uses and the Formation of Fresno County

"Manifest Destiny," was one of the likely causes for the Mexican-American War from 1846 to 1848. Jacksonian Democrats coined the phrase Manifest Destiny in the 1840s as a political philosophy whereby the United States would control all of the land between the Atlantic and Pacific Ocean. The focus was primarily on the northwest coast, in Oregon territory, and on the Texas territory. In 1845, during the Presidency of James K. Polk, the United States annexed Texas and in 1846 invaded Mexico. President Polk, in 1846, also 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. In 1848, the United States, victorious over the Mexican Army, signed the Treaty of Guadalupe Hidalgo; thereby, acquiring all Mexican territory north and west of the Rio Grande and Gila Rivers, which included Texas, New Mexico territory, and Alta California. Additionally, the discovery of gold in 1848 and the Gold Rush that ensued the following year brought many new settlers to California.

When statehood was granted to California in 1850, almost 20 percent of the state was contained in Mariposa County, including all of present day Fresno County. The earliest land grant involving roughly the borders of modern day Fresno County was issued on September 7, 1841, but this land grant was not

upheld after the Mexican American War. By 1856, the area that would soon be Fresno County was growing rapidly. Residents of Millerton, the largest city in the area and today located in Madera County, grew tired of the long dusty, winding, often impassable roads that led to the different county seats they needed to visit to conduct official business. They subsequently petitioned to separate Fresno County from Mariposa County. On April 19, 1856, the California Legislature granted the act forming Fresno County. Millerton was the original county seat, but was almost completely destroyed in a massive flood on Christmas Eve in 1867 (Clough and Secrest 1984). The county seat was then moved to the fast-growing city of Fresno. Between 1856 and 1860, the boundaries of Fresno County changed slightly as Tulare and Merced Counties were also annexed out of Mariposa County. The Fresno County southern boundary, approximately 15 miles to the south of the Project Area, has remained the same since 1856. The southern Fresno County border follows the dividing line between Township 15 and 16.

In general, conditions in the Central Valley were too unsettled in the 1830s and 1840s to allow the establishment of many permanent outposts. In addition, the western half (and specifically the southwest portion) of Fresno County was seen as a desolate area where “emigrants had no attractions such as farm land, timber or even sublime mountain scenery” (Clough and Secrest 1984:253) to draw them to the area. This would soon change. Within a few days of the January 1848 signing of the Treaty of Guadalupe Hidalgo deeding California to the United States, James Marshall discovered gold on the American River. Among those best positioned to take immediate advantage of this gold discovery were Mexicans and Californios, many of whom were experienced miners willing to share their knowledge with Anglo-Americans. Soon great numbers of Hispanics were active in the gold fields, especially the southern mines. As hostilities grew between Hispanic and Anglo-American miners, many Mexicans and Californios left the gold fields, and at least some resettled in the San Joaquin Valley where they continued to work in mines. Others were vaqueros either working for the Anglo-Americans or independently. Although California’s gold rush brought an influx of settlers into the County, it was not until irrigation was started in Fresno in 1866 that agricultural settlement of the county expanded (Elliot 1882).

5.7.1.11.2 Anglo-American Relationships with Native Americans

The new settlers arriving in the San Joaquin Valley after the Gold Rush further displaced the Native Americans living in Fresno. Tensions grew until the Mariposa Indian War began in 1851. The war lasted only a few months and resulted in the Native Americans in Fresno County being forced to give up their lands and relocate to the Fresno River Reservation, near the present day city of Madera. The reservation had poor water sources and the residents were forced to rely on the government for food and supplies. By the late 1850s, the Native American residents of the reservation were so decimated by corruption, alcoholism, disease and malnutrition that in 1859, the reservation was abandoned (Clough and Secrest 1984). The Native Americans left living on the reservation were forced to search for work as laborers, mostly in mines or as ranch hands.

5.7.1.11.3 Ranching in Western Fresno County

Demand for meat began to attract ambitious ranchers to the San Joaquin Valley during the early 1860s. The remote and dry region of western Fresno County was best suited to grazing, especially sheep, but cattle could also be raised in the better watered areas. The Homestead Act of 1862 allowed 160 acres to be claimed by a man for the cost of the filing fee and five years residence. During this period both large

and small landowners came to the San Joaquin Valley. Two of the most ambitious settlers were Henry Miller and Charles Lux. They were German butchers who eventually owned one million acres in three states as well as hundreds of thousands of cattle and sheep, slaughter houses, banks, stores and hotels (Clark 1973; Vandor 1919). The cores of their holdings were in Merced and Fresno Counties. At one time, they owned over 268,000 acres in Fresno County alone. The western side of the San Joaquin Valley, in the vicinity of the Project Area, was mostly settled as smaller ranches.

5.7.1.11.4 Jayne Avenue

It is unknown who West Jayne Avenue, which runs along the northern border of the Project Area, was named after. It was possibly named after Thomas Jayne, a sheepherder, who arrived in western Fresno County in 1869 with his family and flocks of sheep. The earliest sheep herders in Fresno County were ranchers Henry Clay Dauton and Jonathan Rea who both arrived in 1853. They owned prosperous sheep flocks between the Fresno and Chowchilla Rivers. At this time, sheep were raised primarily as a food source. Shortly after Jayne arrived in Fresno County it was discovered that the arid open grasslands of the western San Joaquin Valley were excellent for grazing and French and Spanish Merino sheep, known for their high quality of wool, began to be imported into the area (Clough and Secrest 1984). No other information is available on Thomas Jayne or regarding whether West Jayne Avenue was named after him or another member of his family.

5.7.1.11.5 Pleasant Valley

The region east and north of modern day Coalinga is known as Pleasant Valley, and the Project Area lies on the eastern edge of Pleasant Valley. Unlike the rest of western Fresno County, Pleasant Valley had reliable water sources from Jacalitos, Warthan and Los Gatos Creeks and was the first part of this region to be settled (Clough and Secrest 1984). The first Anglo-American settlers, the Barnes family, came to this area in 1869. Settlement continued through the early 1870s. By the mid-1870s, the Gustave Kreyenhagen family had established the first store in Pleasant Valley in the village of Poso Chane, possibly located at the site of today's Pleasant Valley Ranch. Poso Chane was sited at the confluence of Los Gatos and Jacalitos Creeks, an area previously inhabited by Native Americans and later by Hispanic settlers. In addition to providing other settlers with much-needed supplies, the Kreyenhagens also set up a large, public sheep-shearing establishment (Latta 1949). At shearing time, this location became crowded with sheep men. The Pleasant Valley area was, in general, known as a flourishing settlement based on stock-raising. In 1880, a Post Office was started and by 1882, the population was large enough to support a school (Elliot 1882). In the 1880s, San Luis Obispo County farmer William Sloan passed through Pleasant Valley and saw its potential for profitable grazing and farm land. In 1887, he started the Pleasant Valley Farming Company and bought as much of the valley as possible, in order to raise horses (Clough and Secrest 1984).

Today, Pleasant Valley is still dominated by agriculture and livestock. A portion of the valley, to the southeast of the Project Area, has been designated as the Pleasant Valley Ecological Reserve by the U.S. Department of Fish and Game. The reserve is open to hunting and wildlife viewing.

5.7.1.11.6 Discovery of Oil and the Formation of Coalinga

The ranching and homesteading activities in this area were soon overshadowed by the discovery of large amounts of oil. North of the Project Area was the general vicinity of one of California's biggest early oil booms. The oil boom resulted in the rapid industrialization of the area and the creation of the city of Coalinga. The oil business was still in its infancy in the 1860s and 1870s, but by the end of the 1870s, oil prospectors entered the area in increasing numbers. Settlers had been aware of the presence of oil north of Pleasant Valley for a number of years, as Native Americans had used the oil deposits as a source of asphaltum. The earliest oil mining took place in 1862 by Thomas Harvey. At this time, oil was mined by digging large pits in the ground and scooping the oil out. Harvey believed that oil could be used as a substitute for coal and was nicknamed Coal Oil Tommy. Along with Harvey, other individual miners filed homestead claims in western Fresno County with the intent of searching for and mining oil. However, at this time, oil production was hampered and unprofitable because of the lack of transportation needed to move the oil out of the county.

Mining helped encourage the Southern Pacific Railroad to build a line to Alcalde in 1887. In 1889, the line was expanded from Los Banos to Collis (Clough and Secrest 1984). This further opened up the area around present day Coalinga to men working in the relatively new field of oil drilling, along with bringing a steady supply of food and water to western Fresno County. With the railroad nearby, their product could be more cheaply shipped to market and equipment and supplies more easily brought in.

The City of Coalinga, approximately 4 miles to the west of the Project Area, got its name on July 22, 1889, when a Post Office was founded at Coaling Station A, along the Southern Pacific Railway. At that time, the Southern Pacific Railroad had three coaling stations along the line running through western Fresno County: Coaling Stations A, B, and C. The name Coaling Station A was simply shortened to Coalinga. M.L. Curtis was the first settler to homestead on the site in 1882, when the town was only a loading platform used to transport coal and eventually oil from the nearby coal mines and oil fields to other areas in California. The coal was loaded onto a railroad car nicknamed "Old Betsy" (Clough and Secrest 1984). By 1898, production in the coal mines was stopped because of bad weather, the bad quality of the coal, competition from cheaper high-quality coal being mined in Utah, and the loss of money due to gambling by the mine owners. However, the residents of Coalinga quickly switched to the production and mining of oil, natural gases and gypsum, which had also been discovered in the hills surrounding Coalinga.

Coal and oil brought many settlers and businessmen to Coalinga. In the early 1890s, Frederick R. Tibbers opened a saloon and Louis O'Neil opened a store in the new town. Soon after, S. Barker opened the Pleasant Valley Hotel, the Coalinga Hotel, and a butcher shop. (Clough and Secrest 1984). In 1894, Arthur P. May opened a general store, an oil well supply business, and the post office. May was also an agent of the Wells Fargo Express and eventually installed the first telephone in Coalinga. May continued to be a leader and businessman in Coalinga until his death in 1940.

Although oil had been found, its production remained limited until the Southern Pacific Railroad began extending its lines in 1887 (Latta 1949). As transportation and technology improved, speculators started to finance oil development. In 1890, Milton McWhorter succeeded in bringing in the first significant oil well to the area. McWhorter also founded the Sunset Irrigation District. He became interested in oil

mining as a way to fulfill his need for an inexpensive fuel with which to operate pumps and other irrigation equipment (Clough and Secrest 1984). A few years later, the first big well was brought in by C.A. Canfield and Joseph H. Chanslor (Latta 1949). By 1898, this area, about 8 miles north of Coalinga within the Gujarral Hills area, was known as Oil City. Oil City was extremely successful, the most profitable area in California. People came from all over the state to see oil gush up to 100 feet in the air in one oil well owned by the Coalinga Oil Company. Oil City's production reached its peak on April 24, 1898, when 300 barrels of oil were produced in one day.

In the late 1890s, a pipeline was run from Oil City southward to near Coalinga, where it linked up with the Southern Pacific Railroad. Eventually, big outside investors like Standard Oil Company became prominent in the area and large pipelines were constructed to take the oil directly across the Coast Range to the Pacific Ocean ports and other transportation facilities. During the next decade, wells opened southwest of Oil City and to the west and northwest of Coalinga. During this period, Coalinga changed from a small western town to a modern city of over 5,000 (Vandor 1919). By 1910, another 4,000 people lived and worked in the nearby oil fields, making the estimated population of the Coalinga district about 10,000 (*ibid*). By 1912, the oil rush had slowed and most of the oil production was run by big companies.

5.7.1.11.7 Large Scale Agriculture, ca. 1915 to Present

Government irrigation projects were slow to be developed, even though ideas and plans for such projects existed as early as 1919 when the Marshall Plan for a Central Valley Project was first developed by Robert B. Marshall, the chief USGS hydrographer (Shallat 1978). During the Great Depression in 1933, a similar plan was passed in a statewide vote, but since the State lacked the money to carry out such a massive project (involving two major dams, five canals, hydroelectric power plants, and transmission lines), the federal government took over the project a few years later. Part of this project carries Sacramento River water south through the Delta-Mendota Canal, which runs through Fresno County (*ibid*). The California Aqueduct, a federal-State canal named for former Governor Edmund G. Brown, was completed in 1973 and runs through Fresno County (Hornbeck 1983). Due to modern irrigation techniques, Fresno County is the highest producing agricultural county in the United States. Its major crops include grapes, raisins, cotton, almonds, tomatoes, and many other fruits and vegetables. Turkeys and meat and dairy cattle are the primary livestock raised in the county (Fresno County 2008).

5.7.1.11.8 Modern Infrastructure and Transportation

On August 2, 1956, President Dwight D. Eisenhower signed the Federal Aid Highway Act which provided funding to upgrade America's roads. Eisenhower based his vision of a more connected America on Germany's Reichautobahen rural super highways (Weingroff n.d.). Eisenhower and his advisors originally envisioned creating a 40,000-mile interstate system costing approximately \$27 billion over the next decade (*ibid*). Construction began almost immediately throughout the United States. The creation of California's Interstate 5, directly east of the Project footprint, was part of Eisenhower's plan. Interstate 5, the only freeway to extend to the borders of both Mexico and Canada, was built over a number of years. In some areas, existing roads were expanded with new construction connecting the existing segments. Interstate 5 connects many California's large cities with the notable exclusion of the San Francisco Bay area cities. Within Fresno County, the new interstate was built in several stages throughout the 1960s and 1970s. Interstate 5 is also known as the "Westside Freeway" (*ibid*) because it passes through the western

side of the San Joaquin Valley. A portion of the interstate from San Joaquin County to Los Banos opened in 1967; the segment from Los Banos southward opened in 1972; and the segment from Stockton to Sacramento opened in 1979. Today, Interstate 5 acts as a major conduit for all traffic within California's Central Valley.

Before the creation of Interstate 5, residents of western Fresno County were forced to take smaller roads and highways west of what is now CA-99. CA-99, originally Route Number 4, was built in 1909 and was first paved in 1913. For decades, CA-99 was the only major route within the San Joaquin Valley. One of the smaller local highways now incorporated into Interstate 5 near the Project Area was Highway 152. The portion of Highway 152 between Los Banos and the Pacheco Pass was known as "The Washboard" due to the fact that it travels through a series of peaks and valleys that undulate like a washboard (Rehart 1997). The steep slopes and valleys along this section of the highway made driving difficult and accident prone, and have since been leveled.

5.7.1.12 Conclusions

Prior to European arrival in California, Pleasant Valley was inhabited by the South Valley Yokuts and their ancestors. Their occupation of the area is particularly evident in the numerous village sites within the San Joaquin Valley and surrounding hills. During the Spanish and Mexican periods, western Fresno County and the Project Area remained relatively isolated; there were few Spanish and Mexican land grants. During the American period, the area was not ranched or farmed systematically until the mid-19th century. Even then, problems with drought, unreliable water sources, and poor transportation networks made even subsistence farming difficult. With the introduction of irrigation at the end of the 19th century, western Fresno County became a profitable agricultural center. In addition, the oil industry, beginning in the 1870s and peaking in the 1910s, made western Fresno County one of the most profitable areas within California. Farming, raising livestock, and oil mining have remained the principle industries in the region for nearly 100 years.

5.7.2 Key Personnel Qualifications

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

- Brian K. Glenn, MA, RPA (URS Principal Investigator for this project)
- Jay Rehor, MA (URS Senior Archaeologist)
- Jeremy Hollins, MA (URS Architectural Historian)
- Brian Shaw, MA (URS Architectural Historian)

Mr. Glenn meets the professional standards of the Secretary of Interior Standards and Guidelines for Archaeology and Historic Preservation, National Parks Service, 1983. Confidential Appendix G-1, Cultural Resources of this report contains resumes for key personnel.

5.7.2.1 Site Records and Literature Review

On June 1, 2008 and October 24, 2008, Ms. Adele Baldwin and Dr. Brian E. Hemphill, Ph.D., of the Southern San Joaquin Valley Information Center (SSJVIC), performed a records search at the SSJVIC at California State University, Bakersfield. The SSJVIC is the California Historical Resource Information System (CHRIS) cultural resources database repository for Fresno and other counties in the region. Ms. Baldwin and Dr. Hemphill searched all relevant previously recorded cultural resources and previous investigations completed for the Project footprint and a 1-mile search radius, as well as those within the transmission line corridors and a ¼-mile search area on either side of the transmission line corridors. The following information was reviewed by the SSJVIC: location maps for all previously recorded trinomial and primary prehistoric and historic archaeological sites and isolates; site record forms and updates for all cultural resources previously identified; previous investigation boundaries; and National Archaeological Database (NADB) citations for associated reports, historic maps, and historic addresses.

According to the SSJVIC, seven cultural resource investigations have been performed within 1 mile of the Project footprint and/or within ¼-mile of the transmission line corridors (Table 5.7-1 and Confidential Appendix G, Cultural Resources).

The records search determined that four of these seven cultural resources investigations include portions of the Project footprint and/or transmission line corridors. Of the four studies encompassing portions of the Project footprint and/or transmission line corridors, one includes a portion of the Project Area, while the remaining three include portions of the transmission line corridors.

The southern half of the Project footprint within Section 3, was investigated as part of the proposed prison siting project as one of three alternatives (FR-00244; Peak & Associates 1989). No archaeological resources were found within the investigation area.

The three previous studies along the transmission line corridors include one areal survey (FR-00618) at the juncture of Jayne Avenue and Interstate 5 and two linear surveys that cross the transmission line corridors (FR-1955 and FR 2015). No archaeological resources were identified within the previously surveyed portions of the transmission line corridors.

No cultural resources were previously identified within the Project Area, which comprises the Project footprint and the transmission line corridors. One prehistoric archaeological site represents the only previously recorded cultural resource within the 1 mile search radius around the Project Area. It was recorded by Latta in 1950 within Section 2, to the east of the Project Area, as a “habitation site.” No previously identified cultural resources were identified within the ¼-mile search area on either side of the transmission line APE.

Tables 5.7-1 and 5.7-2 summarize the results of the records search, and copies of the records search can be found in Confidential Appendix G-3, Cultural Resources.

Table 5.7-1
Previously Conducted Cultural Resources Investigations
within a 1-Mile Radius of the Project Footprint and ¼-Mile Radius of the Transmission Line

Survey No.	Author/ Company	Date	Report Title	Quadrangle	Acres	Investigation Type
FR-00068	Wren, Donald G.	1997	An Archaeological Survey for Dresick Farms Travel Center, I-5 and Jayne Avenue: EA-4308A	Guijarral Hills	34 acres	Negative Archaeological Survey
FR-00201	Jones & Stokes Associates, Inc.	1998	Cultural Resources Inventory Survey along Arroyo Pasajero, Near Coalinga, Fresno County, California	Coalinga, Guijarral Hills and Kreyenhagen Hills	3,968 acres	Positive Archaeological Survey
FR-00244	Peak and Associates	1989	Cultural Resource Assessment of the Proposed State Prison at Coalinga, Fresno County, California	Guijarral Hills	2558 acres	Negative Archaeological Survey
FR-00618	Osborne, Richard H.	1995	FRE-5-5-50 37650K Jayne Ave. OC, Brg. #42-0231 Seismic Retrofit	Guijarral Hills	unknown acres	Negative Archaeological Survey
FR-00989	Anonymous	1986	Golf Course PUD – Tract No. 3809	Guijarral Hills and Avenal	80 acres	Negative Archaeological Survey
FR-01955	Hector, Susan and Jerry Schaefer	2003	Cultural Resources Inventory of the Path 15 Los Banos-Gates Transmission Line Construction Project, Merced and Fresno Counties, California	Guijarral Hills and Huron (portions within records search radius)	199.5 miles	Positive Archaeological Survey
FR-02015	Aspen Environmental Group	2001	Los Banos-Gates 500 kV Transmission Project, Draft Supplemental Environmental Impact Report	Guijarral Hills and Huron (portions within records search radius)	84 miles	Positive Records Search

Table 5.7-2
Previously Recorded Cultural Resources
within a 1-Mile Radius of the Project Footprint and a ¼-Mile Radius of the Transmission Line

Resource Identifiers	Cultural Resource Type	Cultural Resource Description	Quadrangle	Evaluation	Recorded by	Date Recorded
P-10-000080 CA-FRE-80	Prehistoric	Habitation Site	Guijarral Hills and Avenal	Unknown	Latta, F. F.	1950

5.7.2.2 Archaeological Survey

Survey of the Project and the transmission line APE was conducted between June 23 and 27, 2008 and on October 29, 2008. Jay Rehor, URS Senior Archaeologist, led a crew of four archaeologists during the intensive survey. The pedestrian survey for the archaeological APE covered the Project footprint and extended an additional 200 feet beyond the Project footprint boundary. In addition, survey included the northern and southern transmission line corridors, plus a 50-foot buffer on either side (Figures 5.7-3 and 5.7-4). The principal survey method consisted of a systematic walk-over in parallel transect intervals no greater than 15 meters. The survey transects extended across the entire horizontal extent of the archaeological APE.

Overall visibility was good to excellent over the bulk of the Project APE. Visibility ranged from 60-100 percent, and averaged approximately 80 percent of the ground surface; however, areas with greater visibility were thoroughly inspected for cultural materials to ensure adequate coverage for resource discovery. Evidence of disturbances within and surrounding the APE include numerous rodent burrows, plowed fields, livestock trampling, and road and building construction. Most of the Project Area contained newly planted orchard or wheat/hay stubble.

The URS archaeological team identified no cultural resources within the Project Area. Inspection of the Project Area's northeast quarter failed to identify petroleum-related structures shown on the Guijarral Hills 1937 quadrangle. No archaeological resources were found within the Project Area or the 200-foot buffer. One archaeological isolate, a chert flake (MRS-I-01), was identified within the southern 50-foot buffer of the northern transmission line corridor in the northwest quadrant of Section 6 (see isolate form within Confidential Appendix G-4, Cultural Resources).

5.7.2.3 Historic Architecture Survey

Between June 23 and 27, 2008 and October 29 and 31, 2008, an intensive historic architecture survey was conducted to account for the properties that appeared to be older than 45 years (1963 or earlier) within the historic architecture APE which included the Project Area (comprising the Project footprint and transmission line corridors) and a ½-mile radius around them. The guidelines set forth in CCR Section 15064.5(a), and the criteria outlined in PRC Section 5024.1 were used to evaluate properties that appeared

to be older than 45 years within the historic architecture APE. Following survey completion, URS Architectural Historians Jeremy Hollins and Brian Shaw recorded the properties that appeared to be older than 45 years through the appropriate Department of Parks and Recreation (DPR) 523 series forms (Confidential Appendix G-4, Cultural Resources), and evaluated the properties per the criterion of the CRHR and Fresno County List of Historic Places (FCHP) and as historical resources for purposes of CEQA. Properties that did not appear to be older than 45 years or were known not to be older than 45 years were not recorded. The survey occurred from public vantage points and in areas where views of the property were obstructed (*e.g.*, tree overgrowth), arrangements were made to access the properties or investigators utilized available information to record the property. Results of the survey are depicted on Figure 5.7-4 and Table 5.7-3.

As part of the historic architecture survey, Mr. Hollins contacted the County of Fresno Public Works and Planning Departments and Fresno Historical Society on July 3, 2008 and October 27, 2008 to identify cultural resources within a 1-mile radius around the Project footprint and for a ¼-mile on either side of the transmission line corridors, pursuant to ordinance or recognized by a local historical society or museum. To date, no responses have been received from the local agency and historical society. Copies of correspondence with the local agency and historical society are included in Confidential Appendix G-3, Cultural Resources.

In addition to these efforts, site-specific and general primary and secondary research was conducted at/with the Fresno County Public Library California History and Genealogy Room; County of Fresno Hall of Records; Fresno Historical Society; RC Baker Memorial Museum (Coalinga); California State University Fresno Madden Library; San Diego State University Library; University of California, San Diego Geisel Library and Mandeville Special Collections; San Diego Public Library; and numerous online resources (*e.g.*, *Calisphere – A World of Digital Resources*, *California Historic Topographic Map Collection*).

URS obtained several historic-period aerial photographs from Environmental Data Resources, Inc. and made a research request for reproductions of historic-period aerial photographs with California State University – Fresno Madden Library Government Publications and Maps Department and Special Collections and Archives Department. Due to remodeling in the library, only photocopies (and not scanned images) of the aerial photographs were available at the time of request. In addition, on October 30, 2008, Mr. Bill Morris, of the RC Baker Memorial Museum in Coalinga, visited two of the historic-period properties (MRS-7, MRS-9) with Mr. Shaw. Mr. Morris previously worked in the Fresno County oil fields for more than 30 years, and potentially had insight regarding the history and development of APE environs.

The research provided insight into the historic contexts and themes of the area and specific information concerning the properties within the APE (*e.g.*, date of construction, architect/builder, and historic landownership). As part of this research, Mr. Hollins reviewed historic maps and photographs (*e.g.*, USGS, plat, *Progressive Atlas of Fresno County*), newspaper articles, general histories, journal articles, and other relevant data. Copies of historic maps and aerial images are included in Confidential Appendix G-5, Cultural Resources.

Table 5.7-3
Previously Unrecorded Properties within a ½-Mile Radius of the Project Area

Map Ref No.	Year Constructed	Description of Resource and Major Elements	Locational Data	County	Office of Historic Preservation (OHP) Status Code
MRS-1	Approx. 1955	Metal Storage Shed	UTM 10 754376 mE, 4002131mN (NAD83/WSG84)	Fresno	6Z
MRS -2	Approx. 1955	Wood-Framed Storage Shed	UTM 10 753158 mE, 4002085 mN (NAD83/WSG84)	Fresno	6Z
MRS -4	Approx. 1948-1955	Wood-Framed Meeting Hall	UTM 10 752775 mE, 4002948 mN (NAD83/WSG84)	Fresno	6Z
MRS -5	Approx. 1948-1955	Wood-Framed Bungalow	UTM 10 750589 mE, 4002576 mN (NAD83/WSG84)	Fresno	6Z
MRS -6	Approx. 1948-1955	Wood-Framed Garage	UTM 10 750880 mE, 4002465 mN (NAD83/WSG84)	Fresno	6Z
MRS -7	Approx. 1935-1937	Golf Course and Country Club	<u>UTM 10 751939 mE 4002023 mN</u> (NAD83/WSG84)	Fresno	6Z
MRS -8	Approx. 1955	Gates Substation	UTM 10 758671 mE, 4003251 mN (NAD83/WSG84)	Fresno	6Z
MRS -9	Approx. 1955	Oil Pumping and Storage Site	<u>UTM 10, 752855 mE 4001940 mN</u> (NAD83/WSG84)	Fresno	6Z

None of the properties identified and recorded as a result of the intensive survey appeared to be eligible for the CRHR or FCHP, or was determined to be a historical resource for purposes of CEQA. Additionally, none of the properties has retained a significant amount of its historic integrity. Historic integrity is the ability for a historic property to convey its significance, and consists of seven aspects: location, design, setting, materials, workmanship, feeling, and association. The following is a summary of the historic-period properties that have been recorded and evaluated on the appropriate DPR 523 series forms (Confidential Appendix G-4, Cultural Resources).

5.7.2.3.1 Previously Unrecorded Properties within a ½-Mile of the Project area**5.7.2.3.2 MRS-1**

MRS-1 is a prefabricated storage shed with standing seam metal cladding. MRS-1 is located west of an orchard and is surrounded by a chain-link fence, post-and-rail fence, storage tanks, and a water pump. MRS-1 is one-story in height with a rectangular form. The building has a side-gabled roof with a slight overhang. Atop the roof ridge, the building features a ventilator. The west elevation features two single-personnel wood doors with square vision lights. The north elevation has a set of swinging metal doors. The building features manufacturers stamps/placards and signs that read “Caminol Company, Booster Station No.1” on the west elevation and “Butler” on the north elevation. The building is presently in fair condition and its unassuming design is not representative of a particular historic period.

MRS-1 is a modest example of a storage shed. It is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the shed is representative of mid-20th century utilitarian construction, which has been well-documented in California and the West. Therefore, the property does not appear to possess the requisite significance to be eligible for listing to the CRHR and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.3 MRS-2

MRS-2 is a wood-framed storage shed with corrugated and sheet metal cladding and a shed roof. MRS-2 is one-story in height with a rectangular form. The south elevation is open. The building is presently in fair condition and its modest and unassuming design is not representative of a particular historic period. Surrounding the building are large building foundations (north of the shed), oil extraction machinery, and light poles.

MRS-2 appears to be a storage shed intended to support the nearby agricultural activities. It is located ¼-mile north of the former Polvadero Ranch and is immediately adjacent to an orchard and the Zapato Chino Creek.

MRS-2 is a modest example of a storage shed. It is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the shed is representative of mid-20th century utilitarian construction, which has been well-documented in California and the West. Therefore, the property does not appear to possess the requisite significance to be eligible for listing to the CRHR and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.4 MRS-4

MRS-4 is a dilapidated wood-framed vernacular meeting hall with single-wall construction and a corrugated metal roof. MRS-4 is one-story in height with a rectangular form and a moderately-pitched side gable roof. The roof has a slight overhang, and features open eaves. The roof ridge features three ventilators. The property sits on a poured concrete foundation and has lap siding. Fenestration for the property appears to be through fixed, single-hung, and double-hung 6-over-6 windows. However, none of

the windows have retained their glass and many are partially boarded. Some of the windows are paired on the west and east elevations. On the north and south elevations, there are wood-framed door openings (the north elevation opening has been boarded), and the south elevation also features a small shed roof projection. Surrounding the property are non-historic period trailers, storage tanks, and concrete pads. MRS-4 has suffered extensively from neglect, abandonment, and environmental effects, and has a diminished structural integrity. The building is presently in poor condition.

MRS-4 is a modest example of a mid-20th century vernacular non-residential building located within a rural area. Vernacular architecture makes use of regional forms and materials at a particular place and time. MRS-4 does not possess any major stylistic or decorative details, and represents rural architecture's tendency to be unassuming and unpretentious. The building's informal plan, single-wall construction, and window arrangement shows the builder's familiarity with regional climatic conditions (like hot summers), as well as the overall need for the building to be functional (above all else). While MRS-4 exhibits characteristics associated with vernacular rural architecture and building customs, it is not a strong example of a vernacular building for western Fresno County.

MRS-4 first appears on the 1956 Gujarral Hills USGS map (-it is not present on the 1947 Polvadero Gap or the 1937 Gujarral Hills USGS Map). On the 1956 map, it appears to be part of a complex of at least five buildings and structures located immediately north of Jayne Avenue. Only MRS-4 is remaining. The property was developed nearly 90 years after oil production began in the Gujarral Hills area of western Fresno County. Additionally, by the time MRS-4 was developed, the center of western Fresno County's oil industry, which was located 8 miles northwest of MRS-4, had been declining for nearly 40 years and was primarily run by large oil-holding companies (Vandor 1919).

In summary, the property does not appear to possess the requisite significance to be eligible for listing to the CRHR and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.5 MRS-5

MRS-5 is a dilapidated wood-framed single-wall vernacular bungalow residence with attached garage. MRS-5 is one-story in height with several projections and features a moderately-pitched multi-hipped roof clad with composite shingles. MRS-5 has an irregular compound form. The roof has a slight overhang, and features either a wood fascia or open eaves around its elevations. The bungalow sits on poured concrete foundation and has lap siding. Fenestration for the bungalow appears to be through single-hung, double-hung, and fixed windows. Of note, the south elevation features a diamond-shaped window opening (which no longer has its glass). None of the windows have retained their glass and only some of the sashes, stiles, and rails are extant. The building's framing and cladding materials are no longer present in several areas and many of the building's studs and girts are exposed. Immediately north of the north elevation is a two-bay garage and an attached porte cochere. The porte cochere has a shed roof and the two-bay garage has a hipped roof. The garage and porte cochere are in poor condition and are missing doors, portions of the wood lap siding, composite shingles, and other major elements. The garage may have been a later addition, though many of the extant building materials are consistent with the residence. Surrounding the residence are several buildings and structures associated with the residence, such as a horse corral, metal storage sheds, barbecue, an oil derrick, and a privy. The privy does not appear to be in its original location, since there is no depression on the ground.

MRS-5 has suffered extensively from neglect, abandonment, and environmental effects, and has a diminished structural integrity. The building is presently in poor condition.

MRS-5 is a modest example of a mid-20th century vernacular bungalow located within a rural area. MRS-5 does not possess any major stylistic or decorative details, and represents rural architecture's tendency to be modest, unassuming, and unpretentious. The building's informal plan and single-wall construction shows the builder's familiarity with regional climatic conditions (hot summers), as well as the overall need for the building to be functional (above all else). While MRS-5 exhibits characteristics associated with vernacular rural architecture and building customs, it is not a strong example of a vernacular wood-framed bungalow. The bungalow does not embody distinctive characteristics of a type, period, or method of construction, and does not represent the work of a master, possess high artistic values, or illustrate the variation, evolution, or transition of construction types, technology, or materials.

MRS-5 first appears on the 1956 Gujarral Hills USGS map (it is not present on the 1947 Polvadero Gap or the 1937 Gujarral Hills USGS Map). On the 1956 map, it appears to be located towards the southwest boundary of the non-extant Gujarral Hills Oil Field, and was most likely a residence intended to house the local oil industry or agricultural workers (and possibly their families).

In summary, the property does not appear to possess the requisite significance to be eligible for listing to the CRHR and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.6 MRS-6

MRS-6 is a dilapidated vernacular wood-framed garage with corrugated metal cladding. MRS-6 has an irregular rectangular form and a side-gabled roof sheathed in corrugated metal. The north elevation is characterized by three large garage bays which are approximately 12-feet by 10-feet. The garage doors are no longer extant. The west elevation has two window bays. The northwest window bay appears to have been a multi-paned window but none of its glass is extant. The southwest window bay is partially bordered and only a portion of its window frame and dressing is visible. Towards the southwest wall junction is a one-story wood-framed projection with corrugated metal cladding and shed roof. The projection no longer has its shed roof metal cladding. The north elevation features three unevenly spaced open window bays. The east elevation features a single-entry door opening (but no door) and a window bay bordered with corrugated metal. The window bay is surrounded by protective metal bars. Towards the northeast portion of the east elevation, a portion of the wall framing and cladding has fallen off of the building. Surrounding the building are several concrete pads and redwood-framed platforms, which may have supported storage tanks. Portions of the property appear to be used as a gravel yard or a storage/staging area.

MRS-6 has suffered extensively from neglect, abandonment, and environmental effects, and has a diminished structural integrity. In addition, the building is missing many of its original elements, like doors, windows, and roof and wall cladding materials. The building is presently in poor condition.

MRS-6 first appears on the 1956 Gujarral Hills USGS map (it is not present on the 1947 Polvadero Gap or 1937 Gujarral Hills USGS Map). On the 1956 map, MRS-6 is located alongside two other non-extant buildings. It appears to be a garage or machine shop intended to service nearby oil industry activities. The property was developed in the mid-20th century; nearly 90 years after oil production began in the

Guijarral Hills area of western Fresno County. Additionally, by the time MRS-6 was developed, the center of western Fresno County's oil industry, which was located 8 miles northwest of MRS-6, had been declining for nearly 40 years, and was primarily run by large oil-holding companies (Vandor 1919).

MRS-6 is a modest example of a garage and is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the garage is representative of mid-20th century utilitarian construction, which has been well-documented in California and the West. Therefore, the property does not appear to possess the requisite significance to be eligible for listing on the CRHR, and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.7 MRS-7

MRS-7 is an abandoned former golf facility that has been closed and is reportedly slated for redevelopment. The property has a rural setting within the Polvadero Gap area of western Fresno County, and is surrounded by agricultural fields. The property is accessed via a single-lane dirt road that runs west-east from Sutter Ave.

MRS-7 has suffered extensively from neglect, abandonment, and environmental effects, and has little physical integrity and is no longer representative of a particular historic period or theme.

MRS-7 first appears on a 1937 aerial photograph, and also appears on the 1956 Guijarral Hills USGS map. The site sits approximately a ½-mile south of Jayne Avenue, on the west side of Sutter Avenue (which runs north-south). The property served as a golf course, country club, and recreational facility during its years of operation. The golf course is now closed (since approximately 2006), and has reportedly been sold to a developer. It appears that the historic-period buildings (except one noted below) have been demolished and the greens and many of the historic-period designed landscape features have been neglected or have died. The property is only visible from Sutter Avenue.

MRS-7 is a multi-acre site that once contained several buildings. Today only one historic-period structure is visible from a public vantage point - other historic-period buildings appear to have been demolished. The remaining building is a one-story metal building located on the western edge of the property, with a tall metal frame that may have supported a superstructure (*e.g.*, windmill). This building appears to have been used to store maintenance equipment for the golf course. Also, there are two recently constructed (*i.e.*, non-historic period) modular buildings located near the entrance to the property.

MRS-7 is a modest example of a golf course and country club and is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the extant historic-period building at the golf course is representative of mid-20th century utilitarian construction, which has been well-documented in California and the West, and the property as whole does not convey a historic feeling, setting, or visual narrative. Therefore, the property does not appear to possess the requisite significance to be eligible for listing on the CRHR, and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.8 MRS-8 (Gates Substation)

MRS-8, also known as the Gates Substation, is a large power substation and is characterized by a series of two- and three-armed lattice metal towers with diagonal cross bracing and electric transmitters. The substation has a square form and boxy shape. Since its completion, additional transmission lines have tied into the substation and many appear to be completed within the past 30 years.

MRS-8 was built approximately 1955 (per Huron USGS map). Between 1956 and 1971, a major alteration west of the substation nearly doubled its size. MRS-8 is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the substation is representative of mid-20th century utilitarian construction, which has been well-documented in California and the West. Therefore, the property does not appear to possess the requisite significance to be eligible for listing on the CRHR, and FCHP or as a historical resource for purposes of CEQA.

5.7.2.3.9 MRS-9

MRS-9 is a dilapidated former oil pumping and storage site. The property has a rural setting within Polvadero Gap area of western Fresno County, and is surrounded by agricultural fields. The property is accessed via a single-lane dirt road that leads south from Jayne Avenue.

MRS-9 has suffered extensively from neglect, abandonment, and environmental effects, and has little physical integrity. Much of the equipment has been removed, and what remains is in poor condition and is no longer representative of a particular historic period.

MRS-9 first appears on the 1956 Gujarral Hills USGS Map - only the well heads are shown. The property sits approximately a ½-mile south of Jayne Avenue, just east of Zapato Creek. This small pumping and storage facility was built to support the wells that were drilled south of Jayne Avenue in the mid 1950s. The site operated for approximately 45 years, until it was closed, and much of the pumping machinery was removed. The main part of the property is roughly rectangular in shape, surrounded by a dirt road on all four sides.

MRS-9 is a multi-acre site, with several pieces of oil pumping and storage equipment remaining. Remaining at the site are two large storage tanks surrounded by earthen berms. On the north side of the site are two “heaters” used to separate water from the crude oil pumped from the ground. There is another tank standing near the heaters labeled “Produced Water and Oil”. There is a small corrugated metal shed standing east of the large tanks. Just north of the shed is a large pipe manifold and just to the west are two metal tanks lying on concrete stanchions. South of the shed is a capped well head, that stands near the edge of a pistachio grove.

MRS-9 is a modest example of an oil pumping and storage site and is not associated with any distinctive or significant events, persons, design/construction, nor has the potential to yield important information about the past. Rather, the property is representative of mid-20th century utilitarian construction. Therefore, the property does not appear to possess the requisite significance to be eligible for listing on the CRHR, and FCHP or as a historical resource for purposes of CEQA.

All of the above properties have been recorded and evaluated on the appropriate DPR 523 series forms (Confidential Appendix G-4, Cultural Resources).

5.7.2.4 Native American Consultation

The Native American Heritage Commission (NAHC) was contacted on May 8, 2008 to request a search of the Native American Sacred Lands File (SLF) as an aid in determining the presence of Native American sacred sites within the Project Area. A list of Native American Contacts that may have knowledge of known cultural resources or sacred sites within the Project Area was also requested.

The NAHC responded on May 12, 2008 and indicated a records search of the SLF failed to indicate the presence of Native American cultural resources in the immediate Project Area. In addition to the response letter, the NAHC also provided a Native American contact list. Each contact on the list was sent a notification of the proposed undertaking by mail on June 17, 2008 with a request that they respond with information regarding any known cultural resources or sacred sites within the Project Area. Follow-up phone calls were made on June 30 and July 2, 2008.

To date, no written responses have been received regarding the Project. Telephone solicitations for comment ranged from no comment to general concerns and request for notification in the event Native American cultural resources were discovered during construction. Correspondence letters between URS, on behalf of San Joaquin Solar 1 LLC and San Joaquin Solar 2 LLC and the NAHC, and a log showing those Native American individuals contacted are included in Confidential Appendix G-2, Cultural Resources.

5.7.3 Environmental Consequences

5.7.3.1 Significance Criteria

The cultural resources investigations and reports for the Project were conducted in accordance with the CEQA, Public Resources Code, Section 21000 *et seq.*, and the CCR, Title 14, Chapter 3, Section 15000. Consideration of significance as an “historical resource” is measured by cultural resource provisions considered under CCR Section 15064.5 and 15126.4. Generally, a historical resource (these include the historic built environment and historic and prehistoric archaeological resources) is considered significant if it meets the criteria for listing on the CRHR. These criteria are set forth in CCR Section 15064.5, and include resources that:

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

CCR Section 15064.5 and Section 21084.1 further states that a resource not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k], or identified in an historical resources survey can still be considered a historical resource (as defined in PRC Section 5020.1[j] and 5024.1) by a lead agency.

Under CCR Section 15064.5(b), a project potentially would have significant impacts if it would cause a substantial adverse change in the significance of a historical resource (*i.e.*, a cultural resource eligible to CRHR, or archaeological resource defined as a unique archaeological resource that does not meet CRHR criteria), or would disturb human remains. The types of substantial adverse changes include physical demolition, destruction, relocation, or alteration of the resource.

CCR Section 15064.5 also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are also detailed under PRC Section 5097.98.

Impacts to “unique archaeological resources” are also considered under CEQA, as described under PRC 21083.2. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that – without merely adding to the current body of knowledge – there is a high probability that it meets one of the following criteria:

- The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information.
- The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological resources and resources that do not qualify for listing on the CRHR receive no further consideration under CEQA.

In many cases, determination of a resource’s eligibility to the NRHP or CRHR (or its uniqueness) can be made only through extensive research. As such, the best alternative to preserve historical resources is the no action alternative; however, because this alternative is not always feasible, any project should consider alternatives or mitigation measures to lessen the effects to these resources. Where possible, to the maximum extent possible, impacts to resources should be avoided. If, as the Project proceeds, it proves impossible to avoid cultural resources, formal eligibility evaluation will be undertaken. If the resource meets the criteria of eligibility to the CRHR, it will be formally addressed under CCR Section 15064.5 and 15126.4.

In addition, the Fresno County Historical Landmarks and Records Advisory Commission use a local application to determine whether a property is eligible for listing to the FCHP. For a property to be placed on the FCHP, it must have historical and/or architectural importance (including dates, events, and persons associated with the site) and be representative of a specific historic theme.

5.7.3.2 Direct and Indirect Impacts

Direct impacts are typically associated with construction activity and have the potential to immediately alter, diminish, or destroy all or part of the character and quality of historic architecture and archaeological resources. Indirect impacts are related to the primary consequences of the completed project and can cause a change in the character or use of the built environment by the introduction of undesirable auditory or visual intrusions. The Project site construction, operation, and maintenance are not expected to result in direct or indirect impacts to historic architecture and archaeological resources.

5.7.4 Cumulative Impacts

The proposed Project, when assessed with other projects, is not anticipated to have any foreseeable cumulative impacts to cultural resources. No significant or unique cultural resources were found in the APEs during the archaeological pedestrian survey and historic architecture survey. Cumulative Project impacts on local and regional cultural resources are limited, because mitigation measures have been provided that would reduce potential impacts to a less than significant level in the event that an archaeological site is identified within the Project boundaries during construction. In the event that a significant buried archaeology site is encountered during construction, data recovery, and/or site avoidance would ensure that the information content of the site is retained. These measures would reduce the cumulative Project impacts on cultural resources in the region.

5.7.5 Mitigation Measures

The SJS 1&2 is not anticipated to impact CRHR-eligible or unique cultural resources; however, mitigation measures have been provided to reduce potential impacts to cultural resources to a less than significant level in the event that an archaeological site is identified within the Project boundaries during construction. As a result, archaeological monitoring must be conducted during all ground-disturbing activities within the Project site. Should a potentially significant cultural resource be encountered, evaluation of this resource to determine significance is required. The mitigation measures and procedures presented below would apply to any cultural resources located within the identified Project APEs. With implementation of the mitigation measures listed below, no significant impacts to cultural resources are expected to occur.

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 CCR Section 15064.5.

5.7.5.1 Avoidance

CUL-1: In the event cultural resources are encountered prior to 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 upon 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 prior to 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 in order to reduce Project related impacts to a less than significant level. In the event that archaeological resources are discovered during the course of construction, activities related to the proposed Project, grading, and/or excavation activities within 100 feet of the potentially significant resource should be monitored by a qualified archaeologist.

5.7.5.2 Physical Demarcation and Protection

CUL-2: In instances where a Project facility must be placed within 100 feet of a known cultural resource previously found eligible for inclusion on CRHR, the cultural resource will be temporarily fenced or otherwise demarcated on the ground, and the area will be designated 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 archaeological work may be required to demarcate the boundaries of the cultural resource to ascertain whether the cultural resource can be avoided.

5.7.5.3 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 area. The archaeological monitor shall visit the Project prior to commencement of construction activities to become familiar with site conditions. The archaeological monitor shall attend the pre-construction meeting and work with the County of Fresno, the client, and 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.

5.7.5.4 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 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 area. 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 activities in the immediate vicinity, and immediately notify the archaeological monitor and the 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 the CEC 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 with continued monitoring.

After all ground-disturbing activities are complete; a cultural resources compliance monitoring report shall be prepared by URS cultural resources staff. 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. Where ground disturbing activities exceed one month, monthly summary reports to the CEC shall be prepared and submitted. In addition, daily or weekly notices shall be submitted to the CEC stating “no cultural resources greater than 50 years of age were discovered.”

5.7.5.5 Native American Monitoring

CUL-5: In order 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 ethnohistoric component. The monitor will be retained either directly by the Applicant or by the consultant conducting the actual fieldwork.

5.7.5.6 Resource Recordation and Evaluation

CUL-6: The archaeological monitor shall follow accepted professional standards in recording any discovery and shall submit applicable DPR 523 series forms to the SSJVIC. If the discovery is deemed not significant by CEC, construction activities shall be allowed to proceed. If a potentially significant cultural resource be encountered during monitoring, evaluation of this resource to determine significance shall be required. Significant cultural resources impacted by the Project shall require mitigation of impacts, 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. A mitigation plan shall be prepared for and approved by the CEC. The mitigation program shall be implemented as quickly as possible to avoid construction delays. Construction, with continued monitoring, may resume onsite immediately subsequent to the field data collection phase of any data recovery program.

5.7.5.7 Provision for Encountering Human Remains

CUL-7: Human remains are not anticipated within the Project given the absence of a previously identified prehistoric deposit. If human remains are encountered, construction activities shall be immediately halted in the immediate vicinity of the discovery and the area protected from further

disturbance. The Project supervisor shall immediately contact the county coroner, the CEC and the Applicant. If the remains are determined by the coroner to represent those of a 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 recommendation for treatment and removal.

5.7.5.8 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 in order 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 CRHR.

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.

Historic artifacts shall be cataloged according to group, material, and type, generally based on Stanley South's (1977) classifications. South's artifact groups consist of:

- Architecture – construction material and decoratively functional (*e.g.*, doorknobs or moldings) elements used in a building.
- Clothing – any part of clothing, from a whole garment to a fragment of cloth, a single bead, or a button, as well as sewing items such as a needle or thimble.
- Furniture – furniture hardware and other furniture parts.
- Kitchen – items used primarily in the kitchen, such as glass, ceramics, stove parts, and food remains.
- Personal – small items belonging to one person, such as coins, hygiene products, and jewelry.
- Arms – gun parts and ammunition.
- Tobacco – items used to smoke tobacco.
- Activities – items used to perform an act, such as hardware, toys, transportation, construction, and recreation.

All artifacts, monitoring logs, and photographs are the property of the client and shall be placed in appropriately labeled boxes for temporary storage at URS. As part of mitigation requirements, final curation shall be at the Sierra Mono Indian Museum in North Fork and funded by the client.

5.7.6 LORS Compliance

The Project will be 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 CEQA/CRHR. If a cultural resource is discovered during construction, and cannot be avoided, a program of site evaluation shall be undertaken to ascertain site significance under CEQA/CRHR. All applicable LORS are summarized in Table 5.7-5.

5.7.6.1 Federal

The Project is not anticipated to have federal involvement; therefore, federal LORS pertaining to cultural resources are not applicable. If the Project is determined to have federal involvement, then cultural resources investigations will be consistent with Section 106 of the National Historic Preservation Act per 36 CFR Part 800, and any other applicable federal LORS.

5.7.6.2 State

Table 5.7-4 summarizes the cultural resources state-level LORS that may be applicable to the Project.

5.7.6.3 Local

The County of Fresno has specific LORS, which also determine the treatment of cultural resources identified and recorded in the County of Fresno. Table 5.7-4 summarizes the local-level LORS.

**Table 5.7-4
Summary of LORS**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
Federal					
	Not Applicable (N/A)	N/A	N/A	N/A	N/A
State					
	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.	5.7	CEC	Dorothy Torres
	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 an historical or archaeological resource.	5.7, 5.7.3 5.7.4	CEC	Dorothy Torres
	California PRC Section 5020-5029.5	Establishes the California Register of Historical Resources, criterion, 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 historical resources.	5.7.3	CEC; State Historic Preservation Office; Department of Parks and Recreation	Dorothy Torres; Milford Wayne Donaldson, FAIA
	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.	5.7.2.4	CEC; Native American Heritage Commission	Dorothy Torres; Katy Sanchez
	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	Dorothy Torres; Victor Holanda; Katy Sanchez

**Table 5.7-4
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
	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	Dorothy Torres
	Administrative Code, Title 14, Section 4307	No person shall remove, injure, deface, or destroy any object of paleontological, archaeological, or historical interest or value.	5.7.2.1 5.7.3.2 5.7.4, 5.7.5	CEC	Dorothy Torres
	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.	5.7.2.1, 5.7.2.4, 5.7.5	CEC	Dorothy Torres
	Health and Safety Code, Section 7050.5	Requires construction or excavation 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.	5.7.5.7	CEC; County Coroner	Dorothy Torres
	Health and Safety Code, Section 7051	Establishes removal of human remains from internment, or from a place of storage while awaiting internment 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.	5.7.5.7	CEC; County Coroner	Dorothy Torres
	Health and Safety Code, Section 7052	States that willful 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.	5.7.3.1 5.3.2 5.7.5	CEC; County Coroner	Dorothy Torres

**Table 5.7-4
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
	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.	5.7.3.1 5.7.3 5.7.5	CEC	Dorothy Torres
	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.	N/A	CEC	Dorothy Torres
	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.	5.7.2.4	CEC; State Historic Preservation Office; Tribal Historic Preservation Office; Native American Heritage Commission	Dorothy Torres; Milford Wayne Donaldson, FAIA; Katy Sanchez
	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.	5.7 5.7.3.1 5.7.3.2 5.7.4 5.7.5 5.7.6	CEC	Dorothy Torres
	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.	5.7.6.2	CEC	Dorothy Torres

**Table 5.7-4
Summary of LORS
(Continued)**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
	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.	5.7.3 5.7.4 5.7.5	CEC	Dorothy Torres
Local					
	Open Space Element, Section J	The Open Space and Conservation Element of the Fresno County General Plan, Goal OS-J is to "identify, protect, and enhance Fresno County's important historical, archaeological, paleontological, geological, and cultural sites, and their contributing environment.	5.7.6.3	County of Fresno	Alan Weaver, Director of Public Works and Planning
	Fresno County Ordinance Code, Title, Ordinance 07-049, 15.04.160	Defines historical buildings as a declared Historical Monument by the appropriate local, state, or federal agency	5.7.6.3	County of Fresno	Alan Weaver, Director of Public Works and Planning
	Fresno County Historical Landmarks & Records Advisory Commission Historic Places Application	Fresno County Historical Landmarks and Records Advisory Commission uses a local application to determine if a property is eligible for listing to the Fresno County List of Historic Places (FCHP). For a property to be placed on the FCHP, it must have historical and/or architectural importance (including dates, events, and persons associated with the site) and be representative of a specific historic theme.	5.7.6.3	County of Fresno	Karen Bosch Cobb, County Librarian & Secretary of Fresno County Historical Landmarks & Records Advisory Commission

5.7.6.4 Agencies and Agency Contacts

Agencies with jurisdiction to enforce LORS related to cultural resources are shown in Table 5.7-5.

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

	Agency	Contact	Address	Telephone
1	CEC	Dorothy Torres	1516 Ninth Street Sacramento, CA 95814	(916) 653-3992
2	County of Fresno Department of Planning and Building	Alan Weaver	2220 Tulare Street Fresno, CA 93721	(559) 262-4215
3	Office of Historic Preservation	Milford Wayne Donaldson, FAIA	1416 9th Street, Room 1442-7 Sacramento, CA 95814 P.O. Box 942896 Sacramento, CA 94296-0001	(916) 653-6624

5.7.6.5 Permits Required and Permitting Schedule

As shown in Table 5.7-6, no permits are required for the SJS 1&2 in the area of cultural resources.

**Table 5.7-6
Applicable Permits**

Responsible Agency	Permit/Approval	Schedule
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

5.7.7 References

California department of conservation, 2002. California geomorphic provinces. California geological survey. Note 36.

California Energy Commission (CEC), 1992. Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification.

California Energy Commission(CEC), 2007. Regulations Pertaining to the Rules of Practice and Procedure and Power Plant Site Certification.

California State Archive, 2007 United States Surveyor General for California, Spanish and Mexican Land Grant Maps, 1855-1875. http://www.sos.ca.gov/archives/level3_ussg3.html Site accessed June 2007

CERES, n.d., Bioregions. http://ceres.ca.gov/geo_area/bioregions/South_Coast/about.html. Site accessed June 2007.

Clark, G., 1973. History of Merced County. Merced, California: N.P.

Clough, Charles W. And William B. Secrest , 1984. Fresno County the Pioneer Years, From the Beginnings to 1900. Fresno, California: Panorama West Books.

Elliot, Wallace W., 1882. History of Fresno County California, with Illustrations, Descriptive of its Scenery, Farms, Residences, Public Buildings, Factories, Hotels, Business Houses, Schools, Churches and Mines. San Francisco: Wallace w. Elliott and Company Publishers.

Fagan, B., 2003. Before California: An Archaeologist Looks at Our Earliest Inhabitants. Altamira Press, Walnut Creek.

Fresno County, 2008. Department of Agriculture located at <http://www.co.fresno.ca.us/Departments.aspx?Id=114>. Site accessed June 2008.

Fresno County Sesquicentennial, 2006. Celebrating 150 Years of History located at <http://www.fresnocounty150.org/history.asp>. Site accessed June 2008.

Hornbeck, D., 1983. California Patterns: A Geographical and Historical Atlas. Palo Alto: Mayfield Publishing Company.

Kroeber, A. L., 1925. Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington.

Latta, F.F., 1949. Black Gold in the Joaquin. Caldwell, Idaho: The Caxton Printers, LTD.

Moratto, m., 1984. California archaeology. Florida: academic press.

Peak, Ann S. And Harvey Crew, 1990. Cultural Resources Studies North Fork Stanislaus River Hydroelectric Development Project, Volume II: An Archaeological Data Recovery Project at CA-CAL-S342, Clarks Flat, Calaveras County, California. Ms. On file, Northern California Power Agency, Roseville.

Rehart, Catherine Morison, 1997. The Valley's Legends and Legacies. Clovis, California: Quill Driver Books.

Rolle, a. F., 2003. California: a history. Wheeling, illinois: harlan davidson, inc.

Shallat, T.A., 1978. Water and the Rise of Public Ownership on the Fresno Plain, 1850 to 1918. Public Works Department, City of Fresno, Fresno.

South, Stanley, 1977. Method and Theory in Historical Archaeology. New York: Academic Press, Inc.

United States Geological Survey (USGS), various dates. Various 7.5-minute and 15-minute quadrangle maps.

Vandor, Paul E., 1919. History of Fresno County, California, with Biographical Sketches. Los Angeles: Historic Record Company.

Virtual Lodi, 2000. The History of Lieutenant Gabriel Moraga located at <http://www.virtualloidi.com/history/Moraga.asp>. Site accessed June 2008.

Wallace, William J., 1978. Northern Valley Yokuts. In California, edited by Robert F. Heizer pp. 462-470. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington DC.

Weingroff, Richard F., n.d. The Greatest Decade 1956-1966, Part 1 Essential to the National Interest. U.S. Department of Transportation, Federal Highway Administration, located at <http://www.fhwa.dot.gov/infrastructure/50interstate.cfm>. Site accessed June 2008.

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: **Cultural Resources**

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND 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 Section 5.7.1.5 Section 5.7.1.6 Section 5.7.3.2 Section 5.7.4 Section 5.7.5 Figure 5.7-2		
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 5.7.1.7 Section 5.7.1.8 Section 5.7.1.9 Section 5.7.1.10 Section 5.7.1.11 Section 5.7.1.12		
Appendix B (g) (2) (B)	<p>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.</p> <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'</p>	<p>Section 5.7.2.1 Table 5.7-1 Table 5.7-2</p> <p>Section 5.7.2.3</p> <p>Section 5.7.2</p> <p>Section 5.7.2.1 Confidential Appendix G (Appendix G-3)</p>		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: Cultural Resources

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	<p>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>	<p>Confidential Appendix G (Figure 5-1)</p> <p>Confidential Appendix G (Appendix G-3)</p>		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date

Technical Area: **Cultural Resources**

Project: San Joaquin Solar 1&2

Technical Staff:

Project Manager:

Docket:

Technical Senior:

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
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:	Section 5.7 and Confidential Appendix G (Under Confidential Cover)		
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);	Confidential Appendix G, (Section 4, Section 5)		
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;	Confidential Appendix G (Section 6, Figure 1-3, Figure 1-4)		
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;	Confidential Appendix G (Appendix G-4)		
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	Confidential Appendix G (Figure 5-1, Figure 6-1, Figure 6-2)		
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.	Confidential Appendix G (Section 1.3)		
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	Confidential Appendix G (Section 2, Appendix G-3)		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: **Cultural Resources**

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	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 B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):	Confidential Appendix G (Section 7)		
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	Confidential Appendix G (Section 7)		
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	Confidential Appendix G (Section 7)		
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Confidential Appendix G (Section 7)		
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 5.7.6 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	Section 5.7.6.4 Section 5.7.6.5 Table 5.7-4 Table 5.7-5 Table 5.7-6		

Adequacy Issue: Adequate Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 0 Date _____

Technical Area: **Cultural Resources**

Project: San Joaquin Solar 1&2

Technical Staff: _____

Project Manager: _____

Docket: _____

Technical Senior: _____

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	related facilities.			
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 5.7.6.4 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.	Section 5.7.6.5 Table 5.7-6		



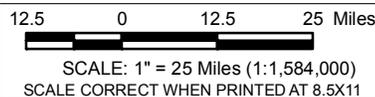
San Joaquin Solar 1 & 2

Pacific Ocean



SOURCES: ESRI (background).

**REGIONAL MAP
SAN JOAQUIN SOLAR 1 & 2**



CREATED BY CM

DATE: 11-13-08

FIG. NO:

PM: AR

PROJ. NO: 27658031

5.7-1

OVERVIEW MAP



San Joaquin Solar 1 & 2

LEGEND

- Transmission Lines
 - Northern Route
 - Southern Route
- San Joaquin Solar 1 & 2



SOURCES:
USDA FSA Aerial Photography Field Office (aerial 2005); CNDDDB (Mar. 2008); ESRI (roads).

LOCATION MAP
SAN JOAQUIN SOLAR 1 & 2

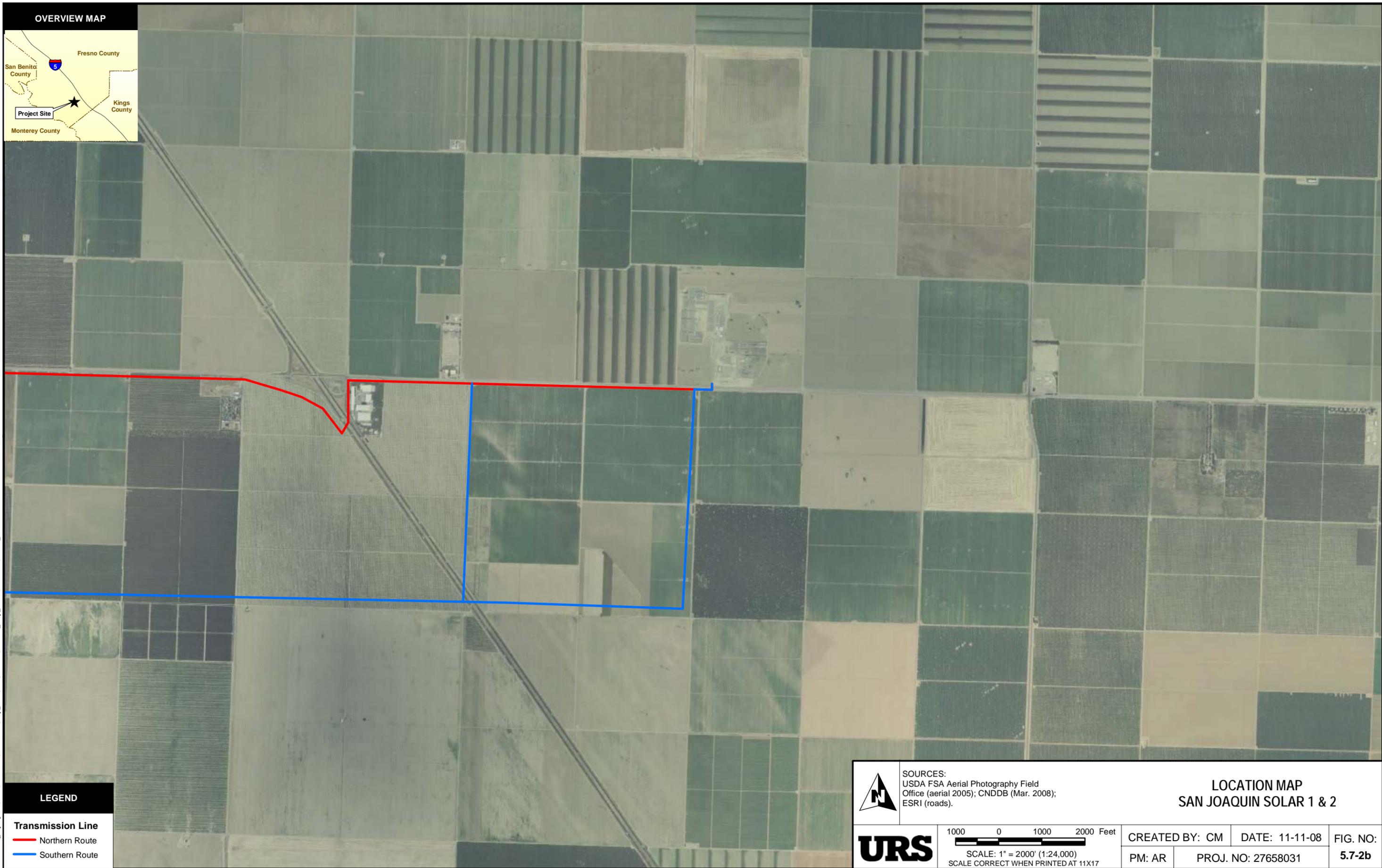


1000 0 1000 2000 Feet
SCALE: 1" = 2000' (1:24,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-10-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-2a

Path: G:\gis\projects\157727658031\alternative\map_docs\mudcultural\location_map_a.mxd, 11/13/08, colin_mattison

OVERVIEW MAP



LEGEND

- Transmission Line**
- Northern Route
- Southern Route



SOURCES:
 USDA FSA Aerial Photography Field
 Office (aerial 2005); CNDDDB (Mar. 2008);
 ESRI (roads).

LOCATION MAP
 SAN JOAQUIN SOLAR 1 & 2

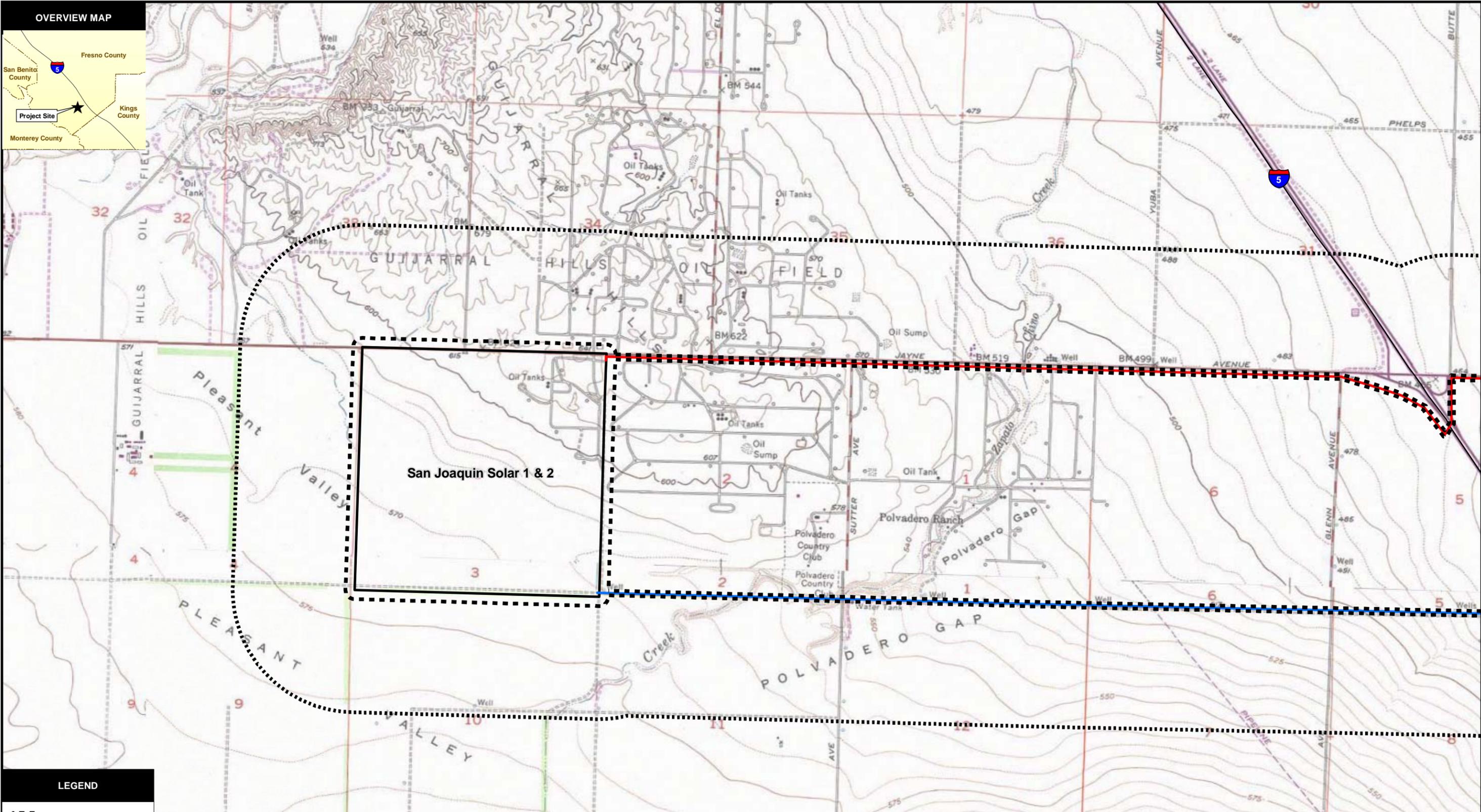


1000 0 1000 2000 Feet
 SCALE: 1" = 2000' (1:24,000)
 SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-11-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-2b

Path: G:\gis\projects\15772765803\alternative\map_docs\multicultural\location_map_b.mxd, 11/13/08, colin_mattison

California NAIP aerial imagery is freely distributed by The California Spatial Information Library (CaSIL). CaSIL, the California Resources Agency, and the State of California are 2005 California NAIP Imagery funding partners



LEGEND

- Archaeological APE
- Historic Architecture APE
- San Joaquin Solar 1 & 2
- Transmission Line**
- Northern Route
- Southern Route

SOURCES:
Topo! 24k (various dates); ESRI (roads).

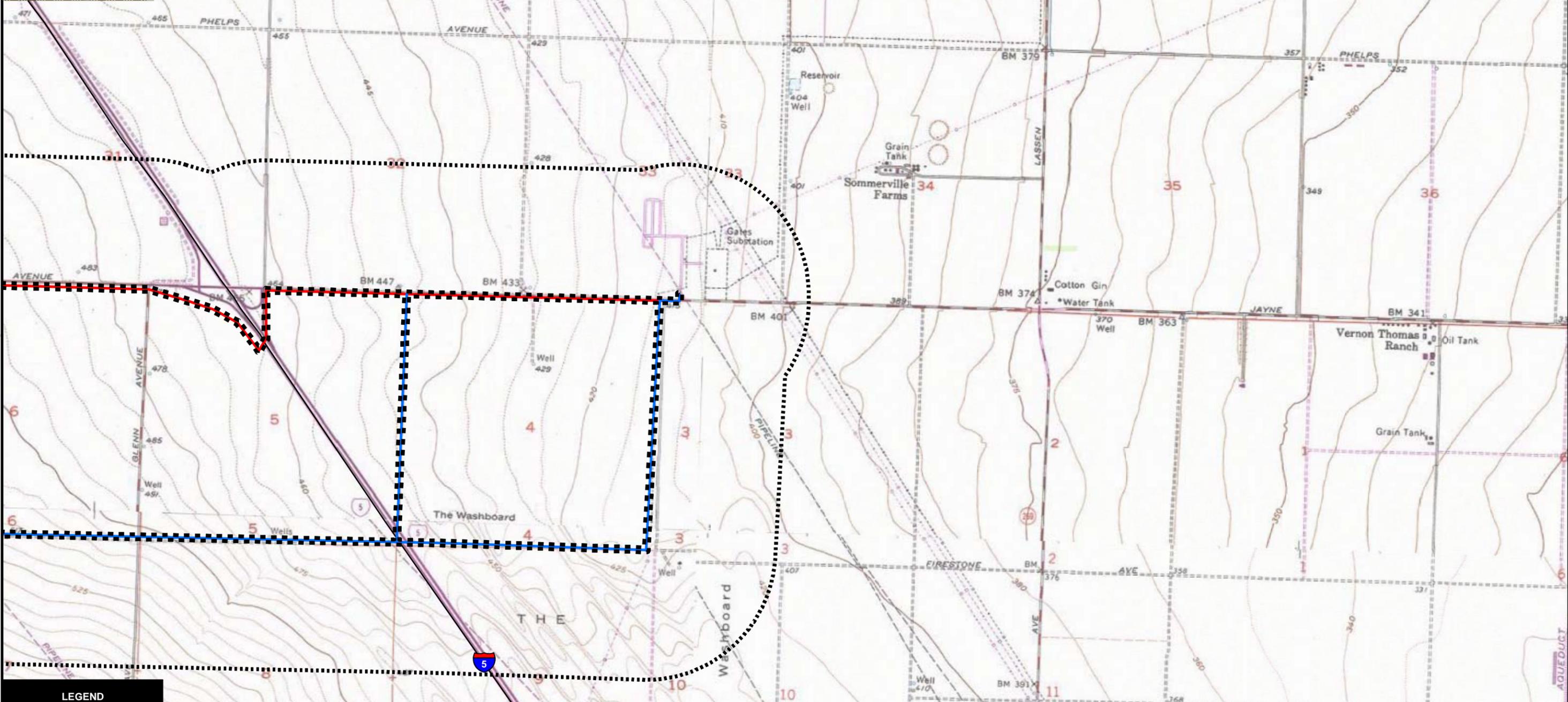
**CULTURAL RESOURCES
AREA OF POTENTIAL EFFECT
SAN JOAQUIN SOLAR 1 & 2**

URS

1000 0 1000 2000 Feet
SCALE: 1" = 2000' (1:24,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-10-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-3a

Path: G:\gis\projects\157727658031\alternative\map_docs\muculturalape_topo_a.mxd, 11/13/08, colin_maitison



LEGEND

- Archaeological APE
- Historic Architecture APE
- Transmission Line**
- Northern Route
- Southern Route

SOURCES:
Topo! 24k (various dates); ESRI (roads).

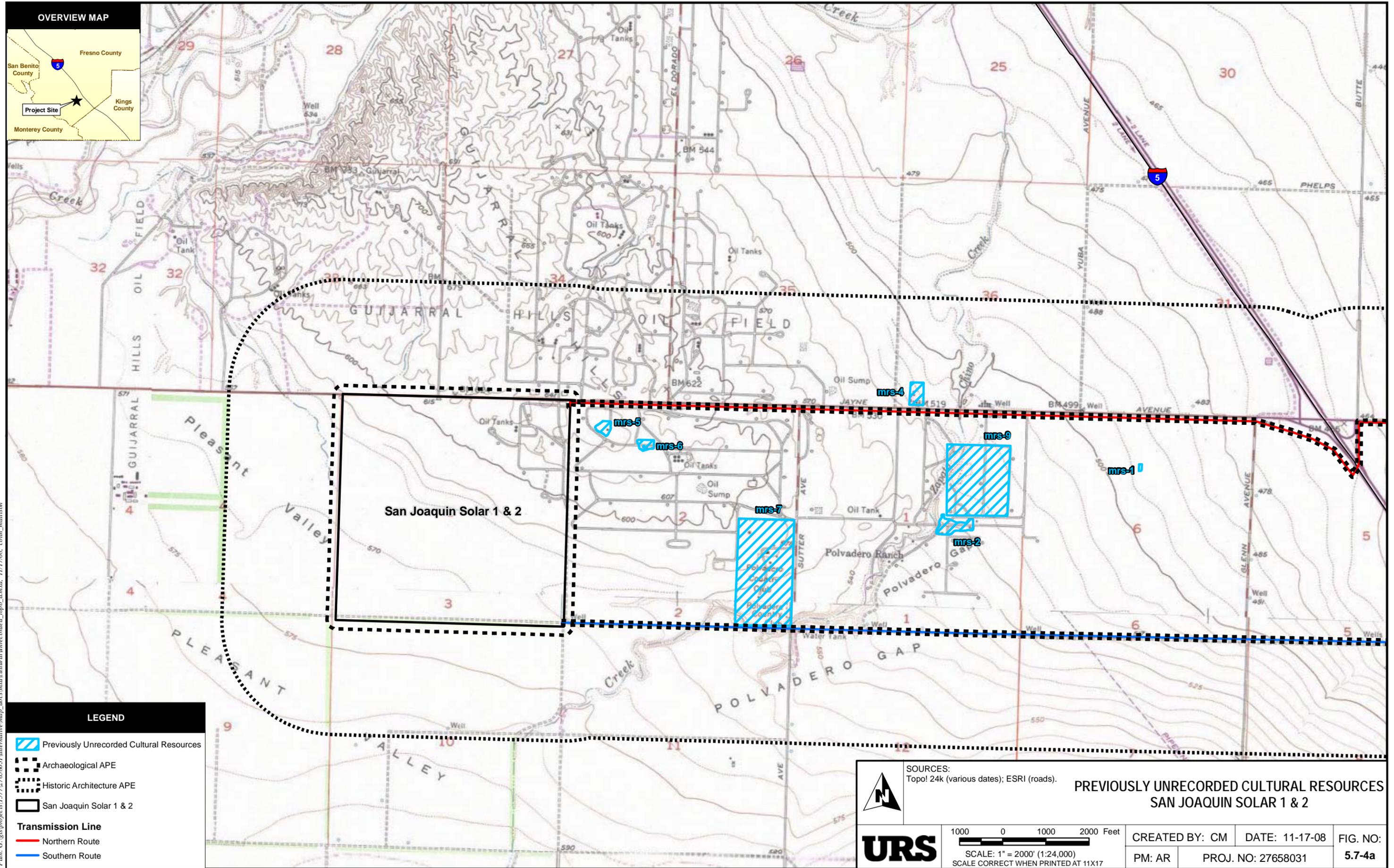
**CULTURAL RESOURCES
AREA OF POTENTIAL EFFECT
SAN JOAQUIN SOLAR 1 & 2**

UR S

1000 0 1000 2000 Feet
SCALE: 1" = 2000' (1:24,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-11-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-3b

Path: G:\gis\projects\157727658031\alternative\map_docs\mdu\culturalape_topo_b.mxd, 11/13/08, colin_maitison



Path: G:\gis\projects\1572765803\alternative\map_docs\mucultural\unrecorded_topo_amsd_111708_colin_maitson

LEGEND

- Previously Unrecorded Cultural Resources
- Archaeological APE
- Historic Architecture APE
- San Joaquin Solar 1 & 2
- Transmission Line**
- Northern Route
- Southern Route

SOURCES:
Topo! 24k (various dates); ESRI (roads).

**PREVIOUSLY UNRECORDED CULTURAL RESOURCES
SAN JOAQUIN SOLAR 1 & 2**

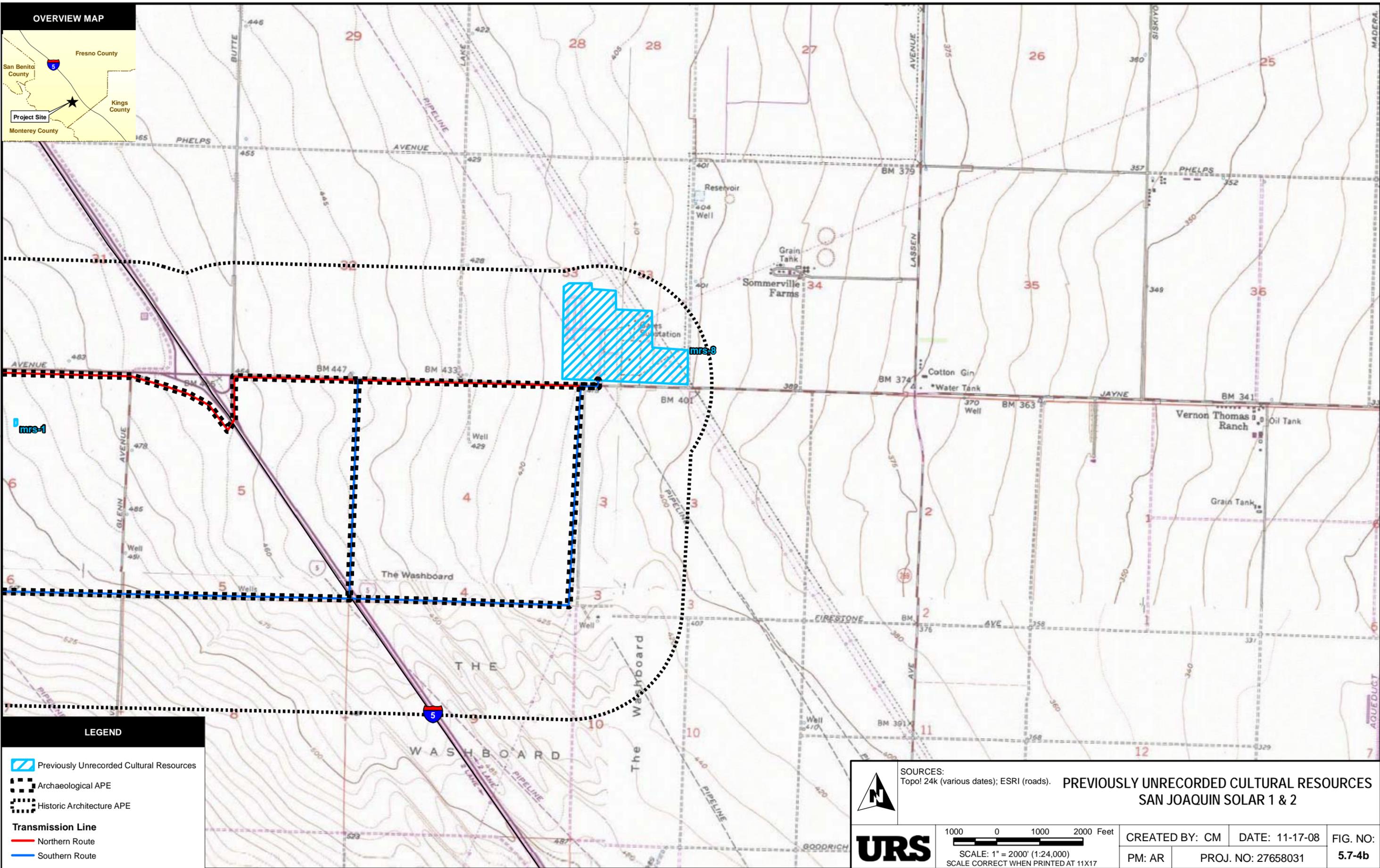
URS

1000 0 1000 2000 Feet

SCALE: 1" = 2000' (1:24,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-17-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-4a

OVERVIEW MAP



Path: G:\gis\projects\15772765803\alternative\map_docs\mucultural\unrecorded_topo_b.mxd, 11/17/08, colin_maitison

LEGEND

-  Previously Unrecorded Cultural Resources
-  Archaeological APE
-  Historic Architecture APE
- Transmission Line**
-  Northern Route
-  Southern Route



SOURCES:
Topo! 24k (various dates); ESRI (roads).

**PREVIOUSLY UNRECORDED CULTURAL RESOURCES
SAN JOAQUIN SOLAR 1 & 2**



1000 0 1000 2000 Feet
SCALE: 1" = 2000' (1:24,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CM	DATE: 11-17-08	FIG. NO:
PM: AR	PROJ. NO: 27658031	5.7-4b