

**Throughout this Application, all references to Federal Power, Federal Power Avenal, LLC, and Federal Power Avenal refer to Avenal Power Center, LLC.**

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## 6.7 CULTURAL RESOURCES

Cultural resources include archaeological and historical objects, sites and districts, historic buildings and structures, cultural landscapes, and sites and resources of concern to local Native Americans and other ethnic groups. Cultural resource analyses have been conducted in compliance with the Rules of Practice and Procedure & Power Plant Site Certification Regulations (California Code of Regulations Title 20) to determine whether important cultural resources could be affected by the Project.

This section describes the results of the cultural resource analyses, which were conducted by Pacific Legacy, Inc. Technical reports of the existing cultural resources conditions in the Project region are included as Appendix 6.7-1, *Cultural Resources Inventories, Application for Certification, Avenal Energy*. As described in the following subsections, based on literature and records searches, site surveys, and Native American consultations, there is no evidence of important cultural resources occurring in the Project vicinity. Therefore, the Project is expected to have no impact to important cultural resources.

### 6.7.1 EXISTING CONDITIONS

#### 6.7.1.1 Project Area

The Site is located on alluvial fan deposits between the Kettleman Hills and the Tulare Lake basin, at the western margin of the San Joaquin Valley. The low Kettleman Hills and Diablo Range are to the west. The bed of the former Tulare Lake and expanse of the San Joaquin Valley extend eastward from the Project vicinity to the Sierra Nevada foothills.

Contemporary climate in the San Joaquin Valley is characterized as Mediterranean, with marked variation in seasonal precipitation. Seasonal runoff, particularly from the Sierra Nevada, is the primary source of groundwater for the San Joaquin Valley (Preston, 1981). Although few paleoclimatic data exist for the Tulare Lake area, studies from the southern Sierra Nevada suggest that, ca. 2,000 to 1,150 B.P., the climate in the Project area was relatively wet and cool, followed by extreme drought and higher temperatures (Medieval Climatic Anomaly); the medieval period in California was marked by extreme and abrupt hydroclimatic shifts from dry to wet (Stine, 1994). By ca. 650 to 100 B.P., cooler and more mesic conditions prevailed.

The marshlands around Tulare Lake, now mostly drained for agricultural use, provided important subsistence and other resources to regional Native American inhabitants, particularly

the Tache Yokuts who occupied the area historically. Faunal remains from archaeological investigations in the vicinity of Tulare Lake (e.g., CA-KIN-66, CA-KER-60, CA-KER-116) attest to use of an expansive variety of fishes, birds (mostly waterfowl), turtles and reptiles, small and large game, and freshwater invertebrates (Siefkin, 1999). Plant species of the former marshlands and sloughs, primarily swamp-grass, tules, swamp-willow, cattail and bulrush, would have provided food, construction materials and tools for aboriginal peoples (Siefkin, 1999).

The Project area is currently entirely taken up in agriculture. The Site is planted in row crops. The Project linear facilities are located in or at the edges of orchards and within Avenal Cutoff Road and Plymouth Avenue. A proposed electric transmission line traverses active agricultural fields and orchards between the Site and the existing Gates substation, located approximately 4.5 miles to the northwest of the Site.

#### 6.7.1.2 Research and Field Methodology

Cultural resource analyses for Avenal Energy encompass three studies occurring between 2001 and 2007. The 2001 study was a comprehensive inventory of cultural resources for the Project area, water and gas pipeline corridors, and a portion of the electric transmission line corridor. The study included literature and records searches, contact with the Native American Heritage Commission (NAHC) and relevant Native American tribes, field reconnaissance by a historian to observe for the potential presence of historic resources, and pedestrian-level survey of areas where disturbances are proposed. The technical report for the 2001 study is provided in Appendix 6.7-1A. In 2006, the 2001 work was updated and the study area was expanded to include an additional approximately 5.1 miles of electric transmission line corridor. A second technical report was prepared for the 2006 study that is provided in Appendix 6.7-1B. The 2006 work included a new literature and records search, renewed contact with the NAHC and relevant tribes, reconnaissance of the 2001 survey area to observe for the potential presence of archaeological resources, and detailed survey of the additional approximately 5.1 miles of electric transmission line corridor. The detailed survey of the transmission line corridor included pedestrian-level survey for archaeological resources and field reconnaissance for potential historic era buildings and structures. Limited segments of the electric transmission line corridor were not accessible during the 2006 survey work for reasons of safety due to pesticide application. The third study, completed in 2007, was a focused study of the portions of the electric transmission line corridor that were not accessible in 2006. In 2007, these areas were

subject to a pedestrian-level survey for archaeological resources and reconnaissance for historic era buildings and structures.

Figures 6.7-1A and 6.7-1B show the area encompassed by the cultural field surveys. No cultural resources were identified in the Project area during any of the three studies, so there are no DPR 523 forms to provide to the NAHC.

Two structures in the Project vicinity are considered in the cultural resources study. The modern-day Avenal Cutoff Road crosses the southern Project area and is addressed as a potential cultural resource. Because of substantial modifications occurring to the roadway since its original construction it is evaluated to lack historical integrity. The Project will connect with the existing PG&E Gates substation. The design of the connection will be determined through ongoing consultation with PG&E and the CAISO. Although the Gates substation came into service in the mid-1950s, the system has undergone considerable change. The potential for the Project connection to affect historical attributes of the Gates substation, if any exist, will be evaluated when the planned interconnection design is available.

The following sections provide a brief description of the three studies. Personnel participating in each of the three studies meet the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation. Personnel and their roles, and additional details of each of the studies, are provided in Appendix 6.7-1, along with résumés of key personnel involved.

#### 6.7.1.2.1 2001 Study

##### Literature and Record Search

Documentation on file at the Southern San Joaquin Valley Archaeological Information Center was consulted for any previous archaeological studies undertaken within 0.50 mile of the Site and linear facilities. No previously documented cultural resources are known in the Project area, and no previous archaeological studies are documented. No sites listed on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) are identified within the Project area. Historical research was carried out at the Avenal Museum, the Local History collection of the Kings County Library, and Internet sources regarding Fresno and Kings County history.

### Field Investigations

The historian reconnoitered the Project area on April 2, 2001, for potential historic structures or objects. Archaeological inspection was completed April 17 through April 20, 2001. Following this initial archaeological inspection, Project design developments refined the alignment of the electric transmission line, and portions of the gas pipeline interconnection. Consequently, a follow-up archaeological inspection was completed at the refined electric transmission line interconnection and gas pipeline interconnection locations on August 14 and 15, 2001.

Archaeological field investigations involved a complete intensive-level pedestrian archaeological survey over: (1) the entire Site and a 500-foot buffer zone around the Site; (2) the entire length of the gas pipeline interconnection routes; and (3) the entire length of the water pipeline routes (see Figure 6.7-1A). A field crew walked over the Project study area in a systematic fashion, spaced no more than 5 meters apart. There were no constraints on fieldwork, and surface visibility and access in the area were very good. The field supervisor maintained a daily log to record the progress of the survey.

During the follow-up survey in August, fields of cotton prevented close inspection of a portion of the electrical transmission line interconnection route (see Appendix 6.7-1A). Areas along the electrical transmission line route previously obscured by cotton were successfully examined during the 2006 study with no cultural resources found.

#### 6.7.1.2.2 2006 Study

##### Literature and Record Search

Prior to conducting field research in 2006, a records search to up-date that for the 2001 survey was conducted at the Southern San Joaquin Valley Information Center of the California Historical Resources Inventory System at California State University, Bakersfield (Record Search #06-236). The purpose of the records search was to determine if any archaeological survey had occurred in the Project area since 2001 and to determine if any known archaeological sites had been recorded in the vicinity of the Project area. Sources consulted included:

- Southern San Joaquin Valley Information Center site and study base maps;
- National Register of Historic Places (*Directory of Determinations of Eligibility*, California Office of Historic Preservation, Volumes I and II, 1990);
- Office of Historic Preservation Computer Listing 1990 and updates);
- *California Historic Resources Inventory* (State of California 1976);

- *California Historical Landmarks* (State of California 1990);
- *California Points of Historical Interest* listing (May 1992).

According to the record search, no prehistoric or historic archaeological sites or Native American cultural resources had been recorded within the Project area, nor had any been recorded within a 0.25-mile radius of the proposed transmission line. No previous cultural resources studies are known to have been carried out within the areas of potential effect, or within 0.25-mile of the Project area.

A request was submitted to the NAHC to consult their Sacred Lands Files in order to identify any culturally significant properties. In a letter dated September 6, 2006, the NAHC reported that no sacred lands were known to the NAHC within the Project area.

#### Field Investigations

The transmission line corridor was reconnoitered on September 5, 2006 to identify any potentially historic buildings and structures and to evaluate both surface visibility and the feasibility of accessing land parcels. The area of the Project Site was reconnoitered to determine if any changes had occurred to that area since 2001 and to ascertain if any new opportunities might be afforded for additional archaeological inventory (e.g., any new ditches, roads, or other developments that might afford a view of the subsurface soil column). It was concluded that no new opportunities were available and that the 2001 intensive survey need not be revisited. Intensive survey for the electrical transmission line was begun on September 5, 2006 and completed on September 6, 2006.

Archaeological field investigations comprised an intensive pedestrian survey conducted by four persons traversing the 200-foot wide corridor in two 100-foot wide transects. These transects were centered on the proposed transmission line, and were maintained by using a survey interval of 10 meters between investigators. The entire length of the proposed transmission line corridor was surveyed with the exception of two segments that were designated as 'off-limits' due to crop-dusting activities (see Appendix 6.7-1B). No other constraints were posed during the survey, and access to lands was not further impeded.

The entire survey area consisted of agricultural land that was either freshly tilled, was given over to pistachio, almond, or citrus groves, or was dominated by low-growing crops such as onions and melon. Visibility remained consistently good throughout the project area, save for one

parcel segment planted with cotton and visually impenetrable. This amounted to a distance of 0.6 mile measured along the proposed center line of the electrical transmission line (see Appendix 6.7-1B).

#### 6.7.1.2.3 2007 Study

##### Literature and Record Search

The literature and records search as well as the NAHC inquiry for 2006 were considered adequate for the 2007 cultural resources field survey effort and were not updated.

##### Field Investigations

Field investigations followed the survey methods used in 2006. The focus of the study was on those segments of the electrical transmission line corridor that were not subject to pedestrian archaeological survey in 2006. Each area that could not be surveyed in 2006 was successfully surveyed in 2007. No cultural resources were found and there were no constraints to survey.

#### 6.7.1.3 Ethnography, Prehistory and History

At the time of European contact, the Project vicinity was inhabited by the Tache Yokuts (see Figures 6.7-1A and 6.7-1B), who utilized the marshlands from their summertime residential bases (Latta, 1949). The Yokuts are a linguistically defined group including more than 40 tribelets. Their territory included the entire San Joaquin Valley south of Stockton, including the foothills of the Sierra Nevada south of the Fresno River, and portions of the interior Coast Range.

Tache Yokuts practiced a seasonal subsistence and settlement round, residing in the low foothills of the Diablo Range during the winter months (e.g., near present town of Coalinga) and along the northern shore of Tulare Lake and its tributaries from spring to fall (Kroeber, 1925). A typical lowland village might include one or more large communal tule houses for each individual lineage, one or more sweathouses, granaries and other storage structures, one or more large sunshades, a centralized communal area, smaller houses and perhaps a game field (Kroeber, 1925; Gayton, 1930; Latta, 1949; 1977). Trade relations with coastal groups to the west provided marine shell commodities, while obsidian and stone milling implements were traded with groups east of the Sierra Nevada in exchange for salt from native salt grass, baskets, elk, deer and antelope skins, and steatite (Latta, 1949; 1977).

Ethnographic accounts identify the core of Tache territory as the northern and western shoreline of Tulare Lake and the village of Poso Chane in the Coalinga area. Other ethnohistoric data, however, suggest that Poso Chane was actually a Salinan village called Chenen (Gibson, 1983; Harrington 1933; Latta, 1977; Siefkin, 1999) near a pool of water on the Coalinga plain. Avenal Energy is probably within historic Yokuts' territory.

Spanish expeditions to the Tulare Basin in the early 19<sup>th</sup> century were largely exploratory (e.g., Moraga in 1806; Cook, 1960), but were followed by efforts to convert the aboriginal people and move them to the coastal missions (Cook, 1960). Many Tulare Basin Native Americans were baptized at the coastal missions in the early 1800s and, after the collapse of the mission system in the 1830s, many of them returned to the Basin, bringing with them the clothes, language and agricultural practices they had learned from the Spanish. After failed treaty negotiations in 1851, attempts to forcibly relocate Yokuts groups from the Tulare Lake area to the Fresno and Kings River Indian Farms and San Sebastian/Tejon Reservation met with limited success; the Tache escaped from the Americans to the marshes of Tulare Lake.

In the historic period, Tache Yokuts continued to periodically occupy the margins of Tulare Lake, most likely as annual visits, although the population of most Tulare Basin groups dwindled dramatically during the latter half of the 19<sup>th</sup> century (Kroeber, 1925; Latta, 1976). Traditional Tache Yokuts life was permanently disrupted by Euroamerican settlement, although by the late 1800s many had found work on farms and towns on the western margin of the San Joaquin Valley (McCarthy, 1992), while others took up residence at the Santa Rosa Reservation (Rancheria).

Yokuts people still maintain important cultural practices and retain a strong feeling of affinity for the San Joaquin Valley area. The Santa Rosa Rancheria near Lemoore is an important cultural center for Tache Yokuts people.

Archaeological manifestations in the San Joaquin Valley region suggest human occupation began in the early Holocene (~ 11,000 to 7,000 B.P.). Sites on the southwestern and southern shores of Tulare Lake have yielded artifact types of the Western Stemmed complex, a generalized early Holocene hunting and gathering adaptation (Riddell and Olsen, 1969; Wallace and Riddell, 1988; Wallace, 1991). At CA-KER-116 on the shoreline of Buena Vista Lake south of the Project area near Bakersfield, deeply buried strata associated with stemmed point and flaked stone crescent fragments have yielded three radiocarbon dates between 8,200 and 7,600

B.P. (Fredrickson and Grossman, 1977). At CA-CAL-629/630 in western Calaveras County, a substantial assemblage of ground stone tools was found in deposits dating as early as 9,200 B.P. (McGuire, 1994).

Early archaeological investigations in Tulare Basin were primarily salvage excavations associated with agricultural development from the 1920s to the 1950s. Most of these involved mound sites containing flexed and extended burials, cremations and associated grave goods, including shell beads and ornaments, flaked and ground stone tools, pottery and steatite artifacts, and historic items. Notable early studies include excavations at CA-KER-47 (Gifford and Schenck, 1926) and survey and subsurface testing of the Sacramento-San Joaquin Delta region. Gifford and Schenck (1926) used material from private collections and data from CA-KER-47 to characterize the area archaeologically, while Hewes (1941) recorded numerous sites within historic Tache Yokuts territory, reporting similarities with sequences from the Santa Barbara Channel region. Salvage excavations carried out by Latta (Siefkin, 1995a, 1995b, 1995c) in the 1920s to 1930s at the Broder Mound (CA-TUL-16) on the Kaweah River Delta, Sweet Mound on Tulare Lake, and Alamo Solo (CA-KER-152) in the Sunflower Valley served to define a culture chronology for the Tulare Basin based on changes in burial mode.

More recently, California State University, Bakersfield, and the Tulare Lake Archaeological Research Group have conducted preliminary studies in the vicinity of the Witt Paleo-Indian Site (CA-KIN-32); results are yet to be published. Recently published investigations include excavations and assessment of a private collection at CA-KIN-66 near the northern shore of Tulare Lake (Siefkin, 1999), excavations at CA-TUL-1613, a late Holocene occupation site near the mouth of the Tulare River (Dillon et al., 1991), subsurface testing in two rock shelters and open-air midden deposits at CA-FRE-1333 (Breschini and Haversat, 1987), and limited testing at a deeply buried middle Holocene site along Los Gatos Creek (Atwater et al., 1990).

The Project area lies at the edge of the Tulare Lake Basin at the western end of Kings County. The first documented American presence in the Tulare Basin was in 1826 with the arrival of the Jedediah Smith party. Around 1840, several American explorers, including John C. Fremont, passed through the Tulare Basin. Following the end of the Mexican War in 1848 and the signing of the treaty of Guadalupe Hidalgo, California was ceded to the United States by Mexico. California was granted statehood in 1850, and the first permanent Euroamerican settlement was established in the Basin.

Also in 1850, a failed miner named David Kettleman left the gold fields of California and settled in the hills west of the Tulare Basin near the present town of Avenal. In 1852, Kettleman was granted the first land patent issued by the United States on land in central California. Kettleman's arrival was preceded by two other men who arrived in the region in 1850. These men, Jim McClure and John Fisher, along with Kettleman, raised cattle with the intent of supplying miners in the gold fields with beef. Cattle and sheep remained the economic mainstay of the area through the end of the 19<sup>th</sup> century, with the larger livestock concerns planting grain to augment existing feed sources. This grain and other crops were dry-farmed until construction of the California aqueduct in the 1970s.

Attempts were made during the late 19<sup>th</sup> century to establish settlements in the Kettleman Hills and surrounding area which today cover portions of western Kings County. In 1888, a group of people organized a communal colony 10 miles south of the present town of Avenal. This community, called Esperanza (Spanish for Hope), lasted 2 years before drought and hardship took their tolls and members of the colony began to quarrel among themselves. The colony soon disbanded, and its members dispersed. At the end of the 19<sup>th</sup> century, Basque sheepmen arrived in the area after fleeing the harsh economic conditions of their homeland in the Pyrenees. The Mexican outlaw Joaquin Murietta, whose gang terrorized the valley in the early 1850s, is rumored to have hidden his riches in the Kettleman Hills near Coalinga.

Long before the 20<sup>th</sup> century boom, geologists were aware of the presence of coal and oil in the Kettleman Hills. Oil slicks appeared on the surface in places with names like Tar Canyon and were the original targets of early oil prospectors. The Pacific Oil Company established the first oil well in 1862 near the Avenal Ranch. This crude affair was lined with redwood planking and only tapped into the surface oil down to about 200 feet. The main supply of oil remained at much greater depths: 2,000 to 4,000 feet by some early estimates. Wells would later be drilled to more than 12,000 feet to reach the deposits of oil and natural gas. In 1894, a California State Bureau of Mines report acknowledged the potential oil resources in the Kettleman Hills, but the isolation of the area made large-scale exploitation of the supply difficult. The only roads were rough wagon tracks, and equipment had to be brought in from Stockton, far to the north.

The difficult conditions did not deter the search for oil. By 1920, roughly 45 wells had been drilled in the Kettleman Hills, but none ever reached the large sea of black gold that the prospectors sought. It was not until 1928 when the Milham Oil Company drove in its Eliot #1 well that the true potential of the oil field was realized. On October 5, 1928, the drillers broke

through into the underground reservoir at a depth of 7,108 feet. The oil was under such tremendous pressure that the blast was heard 20 miles away. An estimated 6,000 barrels of oil shot from the hole, soaking everything with a combination of oil and water. It took 23 days to cap the gusher.

Soon after the Milham Company strike, the surrounding hills were awash with men and equipment seeking to harvest the oil under their feet. The Standard Oil Company already owned alternating sections of land throughout the Kettleman Hills and effectively led the area's development. In 1929, Standard Oil laid out the town site of Avenal, and rudimentary shacks passing as houses were hauled in from Taft to replace the workers' tents. Water lines were laid, and a sewer plant was built. A post office, fire department and hospital were soon added to the new community. Electricity replaced oil lamps in the 1930s and, as time passed and the oil boom continued, Standard Oil built the community an airport and a 600-seat theater.

The oil boom lasted through the 1950s despite labor shortages caused by World War II. Production of the Kettleman oil wells began to decline by the 1960s, as did the number of local inhabitants. As the oil money dwindled, agriculture assumed a larger importance in the economic base of the surrounding area. Construction of the California Aqueduct in the 1970s met a growing demand for water necessary to convert the dry-farming practices of earlier times to the more productive practices in use at the start of the 21<sup>st</sup> Century (Forbes, 1954; Carbiner, 1966; Clough and Secrest, 1985).

#### 6.7.1.4 Existing Cultural Resources in the Study Area

Cultural resource studies conducted for Avenal Energy have not identified any documented cultural resources in the Project area or linear corridors. Three elements of the existing built environment, Avenal Cutoff Road and the PG&E transmission lines and Gates Substation are adjacent the proposed Project gas pipeline and electrical transmission line. Their historical significance is addressed below.

According to Kings County records, the first public right-of-way for the Avenal Cutoff Road was declared in February 1936, and land deeds were secured for the right-of-way between 1938 and 1939. The first road surface was graded between 1936 and 1940. Between 1962 and 1969, the County raised and widened the alignment to its current dimensions. Since that time, the road surface has periodically been replaced. Thus, the roadway lacks any semblance of its original

construction due to periodic roadway improvements; therefore, it appears to lack integrity. Lacking integrity, it would not be a potentially significant cultural resource.

The Gates substation into which the Project would connect dates to the mid-1950s. It was added into the Tesla (Tracy) – Midway (Bakersfield) 230 kV line at that time. Significant changes to the system have occurred since Gates substation was added and changes to the substation have undoubtedly occurred. It is not presently known how the Project connection to the Gates substation would affect the existing substation facilities. Until the Project connection is designed it will not be possible to determine if any potentially historical attributes of the Gates substation would be affected. Once the Project connection is designed, an evaluation of the potential impacts to any historically significant attributes of the Gates substation will be made.

There is little likelihood that buried or obscured archaeological resources occur in the Project area. Ground surface visibility was very good during the archaeological surveys in 2001, 2006 and 2007 because virtually the entire area was tilled or in orchard crops with orchard floors free of vegetation. The area has repeatedly been deeply "ripped" to turn over near surface soils for agricultural productivity. This would make artifacts or other cultural material evident at the surface even if they were originally buried by several feet of soil; yet no evidence of artifacts or other cultural resources was observed during field surveys. Buried archaeological sites are reported on the Coalinga Fan (Atwater et al., 1990); however, these are found adjacent to former stream courses. The topographic setting of the Project area makes it highly unlikely that a comparable buried archaeological resource would occur there.

#### 6.7.1.5 Native American Consultation

The NAHC was contacted regarding the Project by letter in 2001 and 2006. Letters of response from the NAHC are included in Appendices 6.7-1A and 6.7-1B. There are no cultural resources in the NAHC's Sacred Lands files in the Project area. During the 2001 and 2006 work efforts, letters also were sent to Native American tribes, individuals and organizations soliciting concerns regarding the Project. Copies of the letters are included in Appendices 6.7-1A and 6.7-1B. Only one response has been received so far. A representative of the Santa Rosa Rancheria Tachi Yocut Tribe e-mailed the cultural resource consultant for the Project to request a Site visit. A copy of the e-mail response is provided in Appendix 6.7-2. The respondent was notified in February 2007 that the Project had been paused, and that they would be contacted when the Project re-started. They were contacted again on September 21, 2007 and notified that the

Project has re-started permitting efforts, and invited to contact the Applicant to arrange for a Site visit if still interested (See Appendix 6.7-2). To date, there has been no response received.

## 6.7.2 IMPACTS

Since no potentially significant cultural resources are known or anticipated in the Project area, the Project is expected to have no direct, indirect or cumulative impacts on cultural resources.

### 6.7.2.1 Significance Criteria

Significance criteria were determined based on CEQA Guidelines, Appendix G, Environmental Checklist Form and on performance standards or thresholds adopted by responsible agencies.

An impact may be considered significant if the Project results in:

- Disturbance or destruction of an important archaeological resource.
- Site testing or data recovery in a manner inconsistent with standards of the Registry of Professional Archaeologists.
- Recreational collection of artifacts that destroys their scientific value and degrades the heritage value of a resource.
- Substantial adverse change in the significance of a historical resource that is listed or eligible for listing on the NRHP, CRHR or on a local register of historic resources.
- Substantial adverse change in the significance of a unique archaeological resource.
- Disturbance of any human remains, including those interred outside of formal cemeteries.

There are no potentially significant archaeological or historic resources known or anticipated in the Project area. The significance of the Avenal Cutoff Road was evaluated with reference to the criteria for listing in the CRHR. A basis for defining the significance of historical resources is found, for example, in PRC Sections 5020.1, 5024.1, and CCR Title 14, Sections 4851, 4852 and 15064.5. The CRHR is established "to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Historical resources may be listed in the CRHR if they meet the eligibility criteria for listing in the CRHR as defined in PRC 5024.1, and CCR Title 14, Section 4850.3. According to CEQA Guidelines Section 15064.5(a)(3):

"Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource has integrity and meets the criteria for listing on the California Register of Historical Resources (PRC Section 5024.1, CCR Title 14, Section 4852) including the following:

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

The Avenal Cutoff Road appears to lack integrity and is evaluated as not meeting the criteria for listing in the CRHR.

#### 6.7.2.2 Construction Impacts

There are no potentially significant cultural resources known or anticipated in the Project area. Despite the fact that no potentially significant cultural resources are known or anticipated in the Project area, a set of contingency measures will be in place for mitigation of potential impacts in the event that unknown cultural resources are found. Workers involved in ground-disturbing activities for Project construction will be instructed to: (1) watch for archaeological resources (e.g., historic and prehistoric artifacts typical of the general area); (2) follow prescribed procedures to report such discoveries, and (3) avoid or minimize impacts to potentially significant cultural resources, if encountered. These contingency measures will be compiled in a "Cultural Resources Discovery Response Plan" to establish the protocols for worker response to unanticipated discoveries of cultural resources.

With these measures, even in the unlikely event that cultural resources are encountered, appropriate procedures will be followed to limit the impact to cultural resources to a level that is less than significant.

### 6.7.2.3 Operations Impacts

There are no potentially significant cultural resources known or anticipated in the Project area that would be subject to impacts associated with Project operations.

### 6.7.2.4 Cumulative Impacts

There are no potentially significant cultural resources known or anticipated in the Project area. Since the Project is not expected to impact cultural resources, no cumulative impact is expected.

### 6.7.2.5 Project Design Features to Avoid or Minimize Impacts

There are no potentially significant cultural resources known or anticipated in the Project area. Project design features to avoid or minimize impacts to cultural resources are associated with protocols to mitigate any impacts to unanticipated cultural resources if encountered during construction, as described in Section 6.7.2.2.

## 6.7.3 MITIGATION MEASURES

Based on the preceding analysis of impacts and measures incorporated during Project construction activities, no mitigation measures are required.

## 6.7.4 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

There are no potentially significant cultural resources known or anticipated in the Project area. Therefore, no significant unavoidable adverse impact is expected.

## 6.7.5 LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS)

This cultural resources evaluation complies with Commission guidance in CCR, Title 20, Chapter 5, Article 6, Appendix B: Information Requirements for an Application (Section (g)(2) Cultural Resources). There are no federally administered public lands in the Project area, and there are no federal actions anticipated that would require compliance with federal historic preservation law or regulation. Applicable LORS are identified in Table 6.7-1.

The Project does not require permits or approvals related to cultural resources. There are no known cultural resources on the Site or Project linear corridors. The NAHC contact for the Project, and the contact for the City of Avenal, which would have an advisory role if unknown cultural resources are found, are provided in Table 6.7-2.

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**TABLE 6.7-1  
CULTURAL RESOURCES LORS AND COMPLIANCE**

JURIS-DICTION	LORS/AUTHORITY	ADMINISTERING AGENCY(1)	REQUIREMENTS/ COMPLIANCE	APPROACH TO COMPLIANCE	AFC SECTION
Federal	None applicable.	None applicable.	None applicable.	None applicable.	Section 6.7
State	California Environmental Quality Act (CEQA); PRC §2100; et seq., §21083.2; 14 CCR §15064.5, 15126.4, 15331, Appendix G.	Commission.	Requires findings by state lead agency regarding project-related effects to and mitigation for important cultural resources.	The Commission will evaluate the data presented as part of the AFC and make a specific finding regarding project-related effects to important cultural resources.	Sections 6.7.2, 6.7.2.1, 6.7.2.2, 6.7.2.3 Pages 6.7-12 to 6.7-14
	PRC §25523(a), 25527; 20 CCR §1752, 1752.5, 2301-2308; Chapter 5Appendix B, Part (g)(2).	Commission.	Requires consideration of unique historical, archaeological and cultural sites.	The Commission will consider unique historical, archaeological and cultural sites as part of its AFC processing.	Sections 6.7.1, 6.7.2 Pages 6.7-1 to 6.7-14
	PRC §5097.94 and 5097.98.	NAHC.	Procedures for notification, disposition, mediation of disputes and identification of Most Likely Descendants of discovered Native American human remains.	In the event Native American human remains are found during the Project, Federal Power will immediately contact the NAHC. The NAHC will mediate disputes and identify the most likely descendants of discovered Native American human remains.	Sections 6.7.1.5, 6.7.2.2 Page 6.7-11 to 6.7-13
	PRC §5097.99.	NAHC.	Establishes felony to remove or possess unauthorized native American remains or grave goods.	In the event Native American human remains are found during the Project, Federal Power will immediately contact the NAHC. The NAHC will mediate disputes and identify the most likely descendants of discovered Native American human remains.	Section 6.7.2.2 Page 6.7-13
	PRC §5024.1.	State Historical Resources Commission.	Establishes California Register of Historical Resources and procedures for nominating sites to the Register.	If any unrecorded cultural resource sites are found during the Project, they will be recorded with the California Register of Historical Resources by the Project's professional archaeologist.	Section 6.7.2.2 Page 6.7-13
	California Health & Safety Code §7050.5.	Kings County Coroner.	Determination of origin of human remains and coordination with County Coroner.	In the event human remains are found during the Project, Federal Power will immediately contact the County Coroner who will determine the origin of the human remains and if the remains are those of a Native American. If the human remains are determined to be Native American, Federal Power will immediately contact the NAHC (see above).	Section 6.7.2.2 Page 6.7-13

JURIS-DICTION	LORS/AUTHORITY	ADMINISTERING AGENCY(1)	REQUIREMENTS/ COMPLIANCE	APPROACH TO COMPLIANCE	AFC SECTION
State (Cont'd)	California Health & Safety code §7054, 7500, 10375, 7113, 7052; Government Code 27491.	Kings County Coroner.	Establish procedures for historic remains and coordination with County Coroner.	In the event human remains are found during the Project, Federal Power will immediately contact the County Coroner who will determine the origin of the human remains and if the remains are those of a Native American. If the human remains are determined to be Native American, Federal Power will immediately contact the NAHC (see above).	Section 6.7.2.2 Page 6.7-12
	California Health and Safety Code §8101.	Office of District Attorney.	Establishes criminal penalties for disturbing a gravesite.	Established criminal penalties for disturbing a gravesite are in place and will be enforced by the Kings County District Attorney.	Section 6.7.2.2 Page 6.7-13
	California Penal Code §622.5.	Office of District Attorney.	Establishes misdemeanor for willful damage to historic or archaeological object.	Established criminal penalties for disturbing a gravesite are in place and will be enforced by the Kings County District Attorney.	Section 6.7.2.2 Page 6.7-13
	PRC §5020.1	Commission.	Defines several terms, including historical resource and substantial adverse change.	The Commission will consider unique historical, archaeological and cultural sites as part of its AFC processing.	Sections 6.7.1, 6.7.2.2, 6.7.2.3 Pages 6.7-1 to 6.7-14
	14 CCR §485(c)	California Historical Resources Commission.	States that a resource that has lost its historic character or appearance may still have sufficient integrity for the California Register of Historical Places.	Any unrecorded cultural resource sites found during the Project will be recorded with the California Register of Historical Resources by the Project's professional archaeologist.	Section 6.7.2.2 Page 6.7-13
	PRC §5097.991	NAHC.	Provides for repatriation of Native American remains and grave artifacts.	In the event human remains are found during the Project, Federal Power will immediately contact the County Coroner who will determine the origin of the human remains and if the remains are those of a Native American. If the human remains are determined to be Native American, Federal Power will immediately contact the NAHC (see above).	Section 6.7.2.2 Page 6.7-13
	PRC §21084.1	Commission.	Defines significant historic resource and significant effect on historic resource.	The Commission will evaluate the data presented as part of the AFC and make a specific finding regarding project-related effects to important cultural resources.	Sections 6.7.1, 6.7.2.2, 6.7.2.3 Pages 6.7-1 to 6.7-14

JURIS-DICTION	LORS/AUTHORITY	ADMINISTERING AGENCY <sup>(1)</sup>	REQUIREMENTS/ COMPLIANCE	APPROACH TO COMPLIANCE	AFC SECTION
State (Cont'd)	PRC §5097.5	Office of District Attorney.	Any unauthorized removal or destruction of archaeological or paleontological resources on sites located on public land is a misdemeanor.	The Project will use employee training to minimize the potential for unauthorized handling of archaeological or paleontological resources, if found. Established criminal penalties for disturbing a gravesite are in place and will be enforced by the Kings County District Attorney.	Section 6.7.2.2 Page 6.7-13
Local	City of Avenal, General Plan.	Commission.	Provides for protection of archaeological resources within the city, including survey reports, environmental assessments, and activity restrictions.	The Commission will evaluate the data presented as part of the AFC and make a specific finding regarding project-related effects to important cultural resources.	Sections 6.7.1, 6.7.2 Pages 6.7-1 through 6.7-14 Appendix 6.7-1
	Kings County General Plan Goal 26, Objectives 26.1, Policy 26a, Policy 26b, Policy 26c	Commission.	Established goals, policies and objectives to preserve significant historical and archaeological sites and structures important to Kings County.	The Commission will evaluate the data presented as part of the AFC and make a specific finding regarding project-related effects to important cultural resources.	Section 6.7.2 Pages 6.7-12 to 6.7-13 Appendix 6.7-1
	Fresno County General Plan Goal OS-J, and Policy OS-J.1	Commission.	Assure cultural resources are addressed in CEQA reviews and identify, protect and enhance important cultural sites.	Cultural studies were performed and are incorporated in the AFC. Project is consistent with County goals and policies because cultural resources will not be impacted.	Sections 6.7.1, 6.7.2 Pages 6.7-1 through 6.7-14
Industry	None Applicable	None Applicable.	None Applicable	None Applicable	None Applicable

<sup>(1)</sup> Pursuant to CCR Title 20, Appendix B (i)(1)(B): Each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the Commission to certify sites and related facilities.

**TABLE 6.7-2  
AGENCY CONTACTS FOR CULTURAL RESOURCES  
AVENAL ENERGY**

AGENCY AND CONTACT	PERMITTING/APPROVAL AUTHORITY
Rob Wood Environmental Specialist III Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814 (916) 653-4040	Consultation (completed – See Appendix 6.7-1).
Steve Sopp Community Development Director City of Avenal 919 Skyline Blvd. Avenal CA 93204 (559) 386-5766	Advisory role.

#### 6.7.6 REFERENCES

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TACHE YOKUTS

**LEGEND**

- SURVEY BOUNDARY
- [Stippled Box] PLANTED WITH COTTON (POOR SURFACE EXPOSURE)



**WATER PIPELINE CORRIDOR**

**EXISTING ELECTRICAL TRANSMISSION LINES**

**SURVEY BOUNDARY**

**GAS PIPELINE**

**SURVEY BOUNDARY**

**ALTERNATE GAS PIPELINE ROUTE**

**AVENAL ENERGY SITE**

**SAN LUIS CANAL**

**SURVEY BOUNDARY**

**ELECTRIC TRANSMISSION LINE**

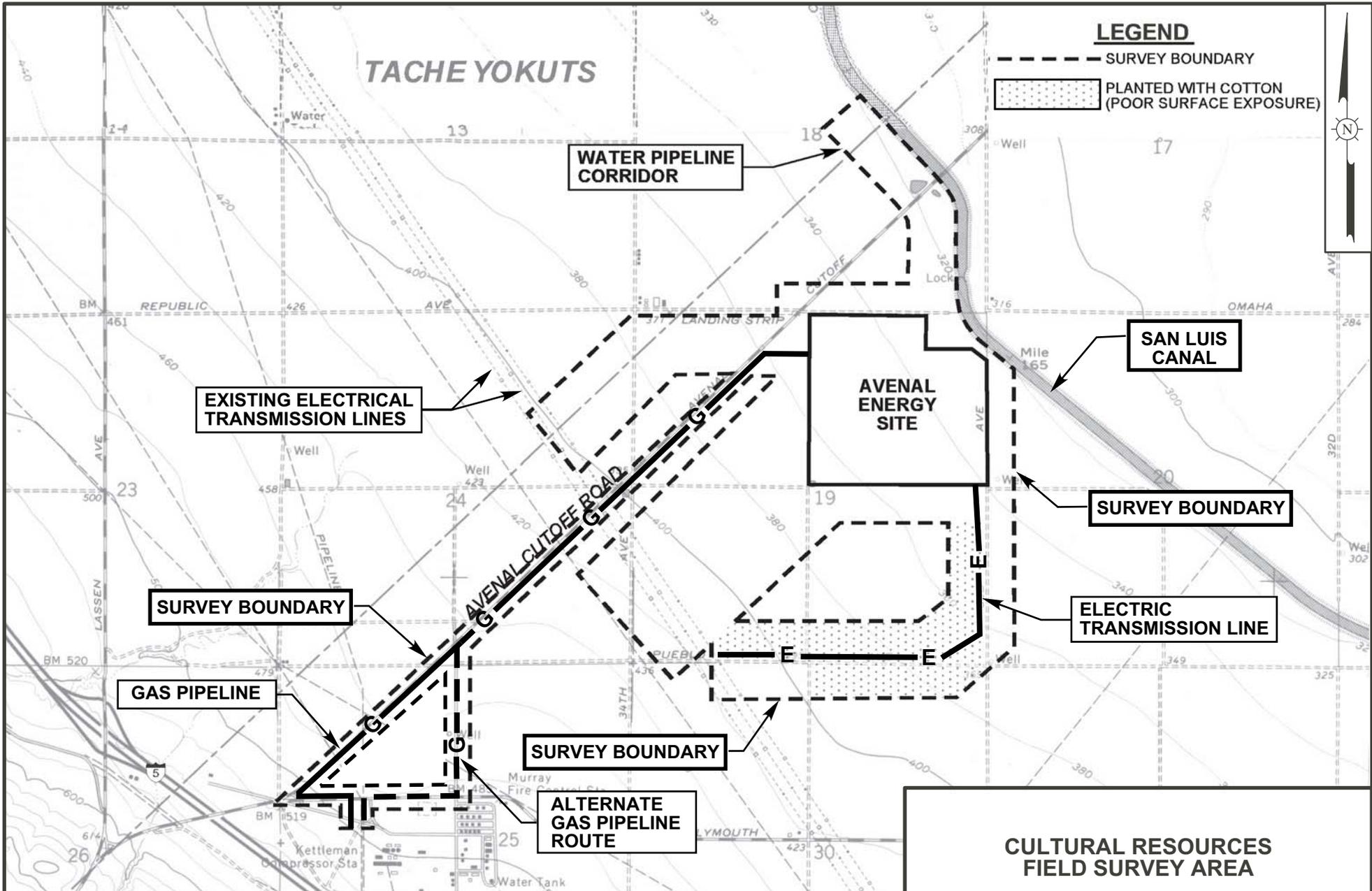
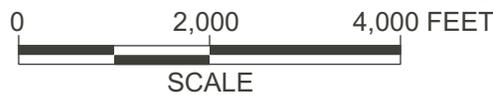
**CULTURAL RESOURCES FIELD SURVEY AREA**

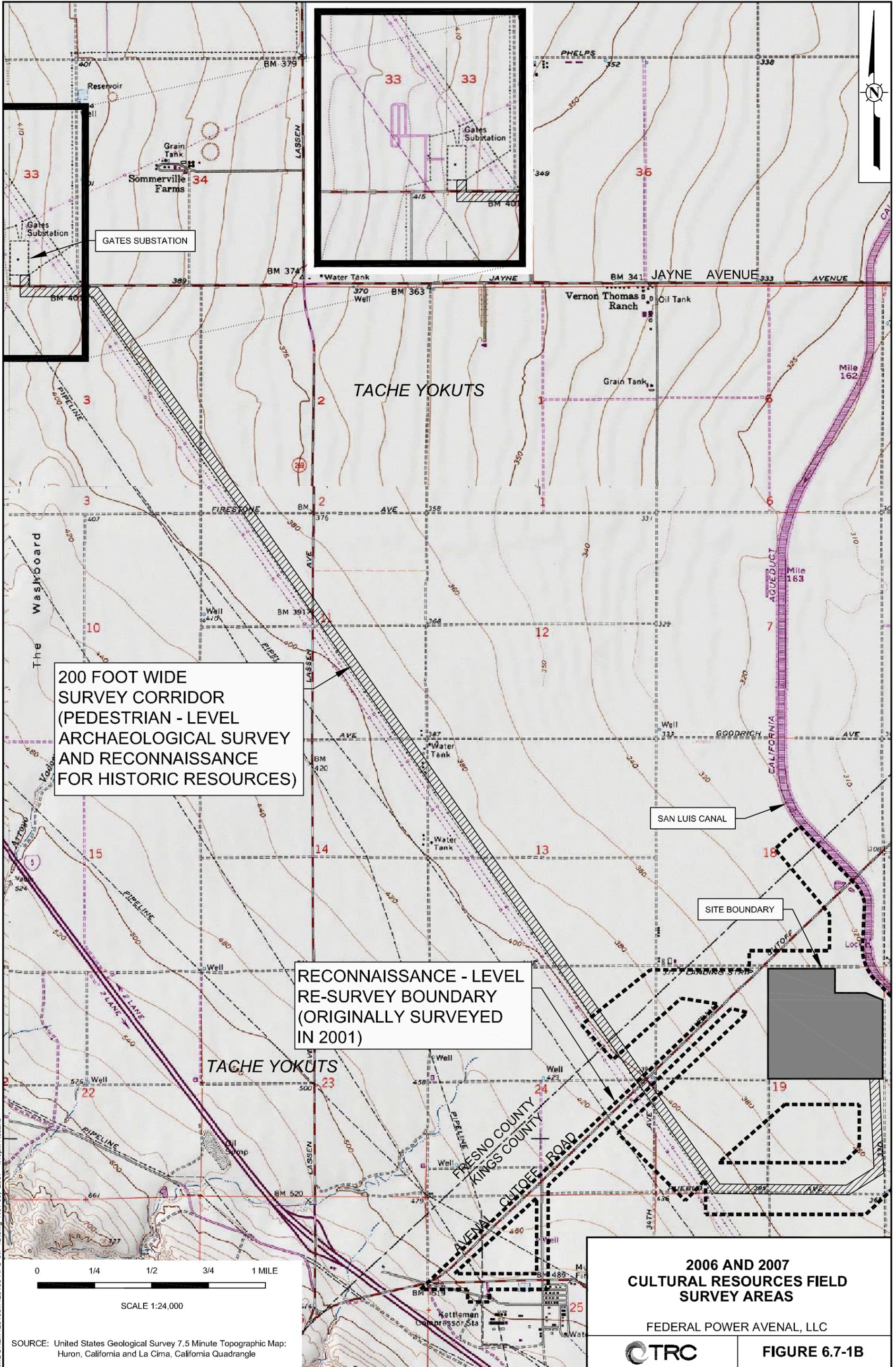
**FEDERAL POWER AVENAL, LLC**

**AVENAL ENERGY**

**FIGURE 6.7-1A**

REFERENCE:  
U.S.G.S 7.5 MINUTE TOPOGRAPHIC SERIES MAP  
OF LA CIMA, CALIFORNIA, DATED 1978.





200 FOOT WIDE SURVEY CORRIDOR (PEDESTRIAN - LEVEL ARCHAEOLOGICAL SURVEY AND RECONNAISSANCE FOR HISTORIC RESOURCES)

RECONNAISSANCE - LEVEL RE-SURVEY BOUNDARY (ORIGINALLY SURVEYED IN 2001)

SAN LUIS CANAL

SITE BOUNDARY



SOURCE: United States Geological Survey 7.5 Minute Topographic Map: Huron, California and La Cima, California Quadrangle

**2006 AND 2007 CULTURAL RESOURCES FIELD SURVEY AREAS**

FEDERAL POWER AVENAL, LLC



**FIGURE 6.7-1B**

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