

8.14 CULTURAL RESOURCES

8.14.1 INTRODUCTION

This section analyzes potential effects on cultural and archeological resources associated with the construction, operation and maintenance (O&M) of the Kings River Conservation District Community Power Plant (KRCDD CPP). It provides a brief background of the project area (prehistory, ethnography and history) and results of a records search. The results of information requests from local historical societies, museums and agencies and contacts made with the California Native American Heritage Commission (NAHC) regarding Traditional Cultural Properties and correspondence with local tribes and individuals are also included. The section also includes a discussion of the methods and results of the archaeological field survey and a description of the cultural resources identified within the project area, including a discussion of their potential significance and potential project-related effects. Applicable laws, ordinances, regulations and standards (LORS) are also discussed along with agency contacts, permit requirements, and schedules. In addition, this section provides an analysis of buildings, structures and objects within the project area to determine whether the KRCDD CPP will have any impact on any historically significant resources.

8.14.2 AFFECTED ENVIRONMENT

8.14.2.1 Project Description

KRCDD is proposing to develop the KRCDD CPP, a nominal 565-megawatt (MW) natural gas-fired combined-cycle base load power plant. The plant will be located near the City of Parlier, in Fresno County on an approximately 32 acre project site. The site is located in an area currently zoned for agriculture and being used predominately for agricultural purposes (vineyards). Existing structures on the project site include a vacant rural dwelling, detached garage and barn. Approximately 15 acres of a 40-acre parcel to the immediate south of the project site will be used for temporary staging and parking during construction. The KRCDD CPP project site, construction staging area and associated linear facilities as described below are shown on Figure 1-3 in Chapter 1, Executive Summary.

Natural gas for the KRCDD CPP will be provided by a new approximately 26-mile long 20-inch underground pipeline interconnection to the Southern California Gas Company (SCG) Line 7000 near the City of Visalia, California. The new gas pipeline will primarily follow existing roads and be located in public right-of-way. Five construction staging areas have also been identified for use during construction of the gas pipeline, each with an approximate size of 200 feet by 200 feet.



The KRCDD CPP will deliver electric power to the Pacific Gas & Electric Company (PG&E) transmission grid through a new approximately five mile-long 230-kilovolt (kV) radial transmission line between the on-site 230-kV switchyard site and PG&E's McCall Substation. The transmission line will cross both private property and the public right-of-way.

The primary source of process makeup water for the KRCDD CPP will be recycled water delivered by new underground pipeline interconnections to the Parlier Wastewater Treatment Plant (WWTP) and the Sanger WWTP effluent percolation and evaporation ponds located on Lincoln Avenue (i.e., Lincoln Ponds). The Parlier WWTP is located adjacent to the north of the plant site, and the interconnection will be located at the northern plant site boundary. The proposed interconnection to the Sanger Lincoln ponds is approximately five miles north and will be located primarily along existing roadways. Currently two options are being considered for the water pipeline interconnection to Lincoln Ponds (i.e., Water Supply Pipeline Option 1 and Option 2). Up to four new shallow wells recovering percolated effluent will provide a back-up cooling water supply.

Potable water for domestic use will be supplied by a new groundwater well to be installed on the project site. There is no offsite linear associated with the potable water supply. Domestic wastewater will be discharged to the Parlier WWTP. The sewer interconnection is located on the northern boundary of the project site with no offsite linear.

8.14.2.2 Background

Prehistory

Archaeological investigation of the San Joaquin Valley began in 1899 with exploration of mounds in Kern County by P. M. Jones of the University of California. Continued research of the area occurred near Buena Vista Lake by both Nelson and Merriam during the early 1900s. Later, J. A. Barr conducted excavations of mound sites near Stockton in the northern San Joaquin Valley from 1893-1901. Shortly thereafter, the first diachronic overview of the northern San Joaquin Valley was published by E. J. Dawson and W. E. Schenck that presented the findings of investigations of more than 90 archaeological sites in the region (Schenck and Dawson, 1929). In the 1930s, Hewes explored parts of the central San Joaquin Valley in an effort to link the more well-known sequences of the Delta in the north and Tulare Lake area of the south. Hewes recorded 107 sites, mostly located near streams and marshes on the east side of the valley (Moratto, 1984:186). Important excavations in the San Joaquin Valley include those of W. R. Wedel (1941) at Buena Lake and other prehistoric and protohistoric cemetery sites. Salvage archaeology of the 1960s at San Luis (Treganza, 1960), Los Banos (Pritchard, 1967, 1970), and Little Panoche Reservoirs (Olsen and Payen, 1968) provided further information to develop local cultural chronology for the San Joaquin Valley.



Although no archaeological excavations have taken place in the vicinity, an amateur archaeologist Oscar Noren collected prehistoric artifacts in the area. As a resident of the Reedley-Kingsburg area, Noren conducted what he described as “salvage archaeology” or rescuing prehistoric artifacts from destruction from construction and farming. Through his efforts, Noren was able to identify 20 habitation sites in the Reedley area (Noren, 1988).

Prehistoric sequences developed from these excavations define culture change for the southern San Joaquin Valley. Excavation in the Tulare Lake and Buena Vista Lake areas present evidence that people occupied the southern San Joaquin Valley as early as 8,000 years ago (Moratto 1984:188). These archaeological assemblages are attributed to Western Pluvial Lakes Tradition (WPLT). As the name suggests, WPLT sites are often associated with ancient lakes fed by receding glaciers that were once common west of the Rockies. Documented from northern Mexico to Canada, the WPLT is characterized by large stemmed and shouldered projectile points, crescents, lanceolate points, and core tools. The WPLT existed for thousands of years, from approximately 11,000 – 7,500 before present (B.P) (Willig, 1988; Moratto, 1984). The general dearth of early Holocene sites in the San Joaquin Valley has been noted by several researchers. This has most often been attributed to the rapid sedimentation of the valley that has occurred throughout the Holocene (Milliken, 1997; Moratto, 1984). However, systematic archaeological excavations have not occurred in the immediate project vicinity, and this makes it unclear if cultural phases identified for the Central Valley region extend into this area.

The Central California Taxonomic System (CCTS) presents cultural sequences more applicable to the area. The CCTS has been refined by Ragir (1972) to include the Windmill Culture, Cosumnes Culture, and the Hotchkiss Culture. The Windmill Pattern is recognized as the earliest permanent settlement of the Delta region. The Windmill Pattern, which appears sometime around 5500 to 4500 B.P., lasted until approximately 3000 B.P. (Chartkoff and Chartkoff, 1984). The tradition was first described based on burial sites containing elaborate grave goods, in or near the floodplain (Chartkoff and Chartkoff, 1984; Ragir, 1972; Wallace, 1978). Artifacts attributed to the tradition, such as projectile points, shell beads and pendants, and highly polished charmstones, reflect the heightening of cultural trends started in the Middle Archaic. Utilitarian items found in Windmill assemblages include milling stones, mortars, pestles, bone tools such as fishhooks, awls, and pins. The subsistence economy of the tradition emphasized the hunting of deer and other game, salmon fishing, and acquisition of seed resources. The process for leaching the tannins out of acorns, thus making them suitable for human consumption, was developed during this period (Chartkoff and Chartkoff, 1984). It has been suggested, primarily on the basis of linguistic evidence, that a number of ethnographic groups in the Central Valley are descendant from the Windmill culture (Chartkoff and Chartkoff, 1984; Elsasser, 1978).



After approximately 3000 years B.P., Central Valley groups began to pursue much more focused subsistence strategies that relied heavily on acorns and salmon (Chartkoff and Chartkoff 1984; Elsasser 1978). The Cosumnes Pattern (2700 to 1500 B.P.) exemplifies the changing subsistence strategies that developed subsequent to the Windmill Pattern. During this period, populations were on the rise and villages became more numerous, particularly on the banks and rises above the major drainages of the rivers flowing out of the Sierra Nevada to the east. Utilitarian tools used in hunting and vegetal food processing became more widespread. Trade networks were expanding at this time as indicated by the increasing amount of exotic obsidian and seashell ornaments offered as grave goods. Burial styles became somewhat more variable over the preceding period as individuals were interred in flexed and extended positions. Violence was apparently on the rise during this period as indicated by projectile points found imbedded in human skeletons. Such clashes may have resulted from competition over finite resources (Beardsley, 1954; Lillard et al, 1939; Ragir, 1972).

The Hotchkiss Pattern (1500 B.P. to 1769 A.D.) is the final phase of human prehistory in the Delta region of California (Beardsley 1954; Ragir 1972). Salmon and acorn exploitation peaked during this period and was supplemented by the hunting of game such as deer, elk, and antelope. Waterfowl, hard seeds, and other resources were also pursued. Terraces and rises above the lower Sacramento and San Joaquin rivers supported large villages, whose size and density suggest increasing population sizes over the preceding period. Trade networks were more developed in Hotchkiss times, and exotic goods from the Pacific coast and Great Basin were common, especially in burials. Social stratification is clearly evident in burials of this time period. Flexed burial of the dead continued, along with the introduction of cremation (Chartkoff and Chartkoff 1984; Ragir 1972). Several classes of utilitarian artifacts such as milling tools become extremely rare, while decorative and ornamental artifacts, such as modified bird bone and large obsidian bifaces, increase in frequency.

Ethnography

The KRCDD CPP project area lies within the ethnographic territory of the Southern Valley Yokuts. These people inhabited the southern end of the San Joaquin Valley from the lower Kings River to the Tehachapi foothills. In addition to the Kings River, the Southern Valley Yokuts territory included Tulare, Buena Vista, and Kern lakes, and the lower portions of the Kaweah and Tule, and Kern rivers and their drainages. The following ethnographic summary is obtained from Wallace (1978) and Kroeber (1925). Detailed information regarding Yokuts ethnography can be found in Powers (1877), Curtis (1907-1930), Latta (1949) and Gayton (1948). The following discussion includes aspects of Yokuts material culture that may be manifest archaeologically, focusing primarily on settlement and subsistence practices and technology.



Yokuts language is part of the Penutian language family (Silverstein, 1978:446) and has two main divisions, valley dialects and Sierra Nevada foothill dialects. The valley dialects are relatively similar to one another (Kroeber, 1925:477). The Yokuts were divided into tribes, each with its own name, dialect and territory (Kroeber, 1925:474) that averaged 350 members; there was no overall political unity of the groups. Most of the villages were located along the major waterways which provided food (fish, waterfowl), tule (used in the manufacture of mats, baskets, cradles, and other crafts), and means of travel for canoe-shaped rafts made of dried tule.

The KRCDD CPP project area was occupied by the Apyachi, Wimitchi, and Nutúnutu tribes. Reliance on the rich lacustrine and marsh resources of the area permitted year-round habitation of major villages. Most of the villages were composed of small houses that were occupied by single families. These had oval floor plans with wooden frames covered in tule mats. Some tribes had communal habitation structures which were long, steep-roofed houses that sheltered ten or more families. Additional structures in the villages included granaries and communal sweatshouses.

The basic subsistence strategy of the southern Yokuts was a mixed economy that included fishing, hunting, and gathering shellfish, roots, and seeds (Wallace, 1978:449-450). Fish, preferably lake trout, were caught in nets or basket traps, speared, shot with a bow and arrow, caught by hand, or stunned by turkey mullein. Waterfowl, such as geese and ducks, were caught in nets, shot with arrows, and lured by stuffed decoys. Other aquatic resources used as food included mussels and turtles. Seeds and roots contributed a large portion of the diet. Tule roots and seeds were both used as food sources. Grass seeds, flowering herbs, some tender plant leaves and stems, clover, fiddle-neck, and alfilaria were consumed. Depending on their availability, buckeyes, acorns, and pine nuts were variously used by southern Yokuts. Land mammals and fowl contributed lesser amounts to the diet. Small mammals and birds were snared in traps. Jackrabbits were driven into nets. Large tule elk and antelope were usually shot from blinds when they went to lakes and sloughs to drink.

In terms of other resources, the Southern Valley Yokuts used tule stems for the manufacture of baskets, mats, cradles, traps, and other items. Lithic tools were fashioned from local materials and imported obsidian. Mortars and pestles were the dominant ground stone tools and bone was used to manufacture awls for making baskets. The Southern Valley Yokuts do not appear to have manufactured ceramic items.

As with other Native American groups in California, the Southern Valley Yokuts culture was dramatically altered as a result of contact with Spanish explorers and missionaries, and Euroamerican settlers who entered the San Joaquin Valley after A.D. 1700. The introduction of



European culture and new diseases proved devastating to the native population and traditional culture. In 1851 the Yokuts tribes agreed to give up their lands in return for reservations and material goods.

History

Don Pedro Fages, leading a group of Spanish soldiers, was the first European known to have entered the southern part of the San Joaquin Valley in 1772. Later the valley was explored in 1805 by Gabriel Moraga who originally named the Kings River *Rio de los Santos Reyes* (River of the Holy Kings) on January 6 for the feast of the Three Kings. Early Spanish interest in the San Joaquin Valley had been confined to occasional forays in search of Native Americans willing to be baptized or those who had escaped from established missions (Hoover et al, 2002). One of the first Spanish settlements in the San Joaquin Valley was Pueblo de las Juntas at the confluence of the San Joaquin River and Fresno Slough. The exact year it was established is unknown; however, by the 1850s it had a long-standing bad reputation (Hoover et al, 2002).

Jedediah Smith was the first American to enter the area from overland in 1826. From this expedition the Hudson Bay Company learned of the rich resources of the Central Valley's rivers and sent trappers to the region from 1827-1846. Notable adventurers, such as Peter Skene Ogden, Kit Carson, Ewing Young, and John Fremont entered the area during the late 1820s through the 1845.

Euroamerican settlement of the Central Valley was rather late as compared to the California coastal regions. In the 1840s, Mexican land grants were issued on three occasions in Fresno County (Clough and Secrest, 1984:32-36). Early settlers often faced resistance from Native American groups and found living conditions difficult. It was not until after 1849 and the beginning the Gold Rush that Euroamerican settlement of the valley began. The first settlements in the valley were located long the major waterways, the San Joaquin, Fresno, Chowchilla, and Kings rivers. These early settlements were established to provide supplies for the gold miners. Ferry outposts were established along these rivers to provide crossing points. Other settlements were established at the present day towns of Reedley and Sanger as stops along the Stockton-Los Angeles Road.

After the Gold Rush, the miners and the merchants who supplied them with goods turned to other economic pursuits. In the 1850s cattle ranching dominated land use in the valley. With the arrival of the railroad in 1872 and laws requiring ranchers to fence in livestock, a shift to agriculture as the primary economic activity occurred. Intensive agriculture could not be possible in the southern San Joaquin valley without irrigation systems.



Large-scale construction of irrigation canals in the San Joaquin Valley began in 1871 with the formation of the Fresno Canal and Irrigation Company by Moses J. Church. By the late 1890s there were 16 irrigation companies, each with its own canals taking water from the Fresno, San Joaquin and Kings rivers. The San Joaquin and Kings River Canal was the first large irrigation canal constructed in California. The project, which began in 1871 and was completed in 1878, had a total of 67 miles of irrigation canals. Many of the farmers in the Kingsburg and Selma area were too far away to benefit from the canals built in and around the Fresno area. Construction of irrigation canals south of Fresno began in 1876 when the Centerville and Kingsburg Ditch Company was incorporated. Construction of the Centerville and Kingsburg canal began the following year and by 1878 water was flowing. Eventually, 44 miles of canals were constructed in the area. Early agricultural settlements that had previously been focused on wheat production turned to orchards and vineyards. Grapes that had been accidentally allowed to dry on the vines in the California Colony near Fresno in 1875 had given rise to an industry that soon was to dominate that area. Towns like Selma, Reedley, and Sanger have their roots in what came to be known as the Fresno Colony System.

Selma and Kingsburg owe their beginnings to farming and to the Southern Pacific Railroad, which began in the 1870s as a branch line of the Central Pacific Railroad. The route of the Southern Pacific through California's Central Valley gave rise to a string of small towns between Sacramento and Bakersfield. Selma and Kingsburg were railroad stops where agricultural goods could be loaded for shipping. As with the rest of the United States, the railroad's role in transportation waned as the 20th century progressed. Selma's passenger terminal later became the Selma police station. With 90 percent of U.S. raisins produced within eight miles of Selma, the city adopted the slogan "Raisin Capital of the World" in 1963. Area vineyards also produce table grapes. Today, agriculture is the primary economic activity for the towns of Selma, Kingsburg, Goshen, and Traver.

Archaeological Sensitivity of the Project Area

Based on the distribution of known Yokuts settlements during protohistoric and early historic times, the KRCDD CPP area is an archaeologically sensitive area. Most of the ethnographically known Yokut villages were located along the terraces and banks of major drainages, such as the Kings River.



8.14.3 RESOURCE INVENTORY

8.14.3.1 Record Search Results

A records search of a one-mile radius of the KRCD CPP project area was conducted at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System (CHRIS) at California State University in Bakersfield during January 2007. Records of previous cultural resource studies and previously recorded cultural resources were consulted. In addition, the following inventories were consulted: the National Register of Historic Places (NRHP), the California Register of Historical Resources, *California Inventory of Historical Resources* (1976), the *California Historical Landmarks* (1990) the *Survey of Surveys* (1989), General Land Office Plat maps, and other pertinent historic data available at the information center. The record search request included copies of all known resources within a one-mile radius of the project area, copies of all cultural resource studies within or next to the project area, and title pages of all other investigations within the project area. The record search results are provided in Appendix A of the Archaeological Survey Report prepared by Shapiro and Kovak (2007), which was submitted under separate cover due to confidentiality requirements.

The results of the records search indicate that there have been 13 cultural resource studies within the project area and 25 cultural resource studies within the one-mile radius of the project area. Two previously recorded sites, both irrigation ditches, are located within the project area. Four other formally recorded cultural resources and two “Noren” sites (N-10 and N-12) are also within the one-mile radius.

Table 8.14-1 and the following discussion summarize the results of the 13 cultural resource studies conducted within the KRCD CPP project area. Many of these studies include long linear surveys, where the actual overlap of the study areas is a small portion. Therefore, many of the resources noted in these studies are not in or within the one-mile radius. Five of the cultural resource studies had negative findings and did not report or formally record cultural resources. The other studies are summarized below.

Table 8.14-1 Previous Cultural Resource Studies Within the Project Area KRCD CPP		
CHRIS Reference Number	Reference	Findings
FRE 4	Kus 1997	Negative
FRE 173	Varner 1978	Negative

CHRIS Reference Number	Reference	Findings
TU 102 MA 83 KI 28 FR 135	Hatoff et al. 1995	Negative for project area
FR 156 TU 103 KE 2056	Wickstrom and Anderson 1997	5 irrigation canals beyond one-mile of project area
TU 250	Cantwell 1981	Negative
MA116 KI 73 TU 965 FR 664	Riddell 1975	52 sites; four originally plotted within one-mile of project area but according to CHRIS but they are actually greater than one-mile away from the project area
TU 1010	Pavlik 1999	14 properties evaluated; three sites are within one-mile of project area
TU 1081 FR 1794 KI 109	Love and Tang 2002a	CA-KIN-69H, CA-KIN-77H, CA-KIN-78H, and P-16-122; all are beyond the one-mile radius of project area
TU 1082 FR 1795 KI 110	Love and Tang 2002b	CA-KIN-68; beyond the one-mile radius of project area
TU 1083 FR 1796 KI 111	Love and Tang 2002c	CA-KIN-69H, CA-KIN-77H, CA-KIN-78H, CA-KIN-68, and P-16-122; all are beyond the one-mile radius of project area
TU 1139	Billat 2000	Negative
FR1940 TU 1158	Thomas 2003	CA-TUL-2450; beyond the one-mile radius of project area
TU 1240	Bonner 2005	Negative
n/a	Self and Associates 1995	Sites P-54-002171 and P-54-002172 (irrigation canals) within project area

- Cultural resource study FR 156/ TU 103/ KE 2056 (Wickstrom and Anderson, 1997) identified five historic irrigation canals. None of the irrigation canals is within a one-mile radius of the KRCDD CPP project area.
- Cultural resource study MA116/ KI 73/ TU 965/ FR 664 (Riddell, 1975) identified 52 sites. CA-TUL- 342, CA-TUL-343, CA-TUL-344 are all prehistoric sites originally plotted within one-mile of the project area, but according to the CHRIS are misplotted and are well-beyond a one-mile radius of the project area.



- Cultural resource study TU 1010 (Pavlik, 1999) evaluated 14 properties which include two rows of black walnut and eucalyptus trees, three canals, nine residential properties, and the Southern California Edison Company Goshen substation. Three of the evaluated properties are within a one-mile radius of the project area. None of the properties evaluated were eligible for the NRHP.
- Cultural resource study TU 1081/FR 1794/ KI 109 (Love and Tang, 2002) identified four resources. CA-KIN-69H is a refuse scatter, CA-KIN-77H is the Armona water tank site, CA-KIN-78H is the Armona depot site, and P-16-122 consists of 22 railroad bridge and culvert features. None of the sites was considered eligible for the NRHP. None of the cultural resources falls within a one-mile radius of the project area.
- Cultural resource study TU 1158 (Thomas, 2003) identified CA-TUL-2450 a prehistoric lithic scatter. CA-TUL-2450 is not within a one-mile radius of the project area.

According to the site records, Self and Associates conducted a cultural resource study for Santa Fe Pacific Pipeline Partner, L.P., a proposed Concord to Colton Pipeline project during which time they recorded two cultural resources that are within the KRCDD CPP project area. The recorded sites identified as P-54-002171 and P-54-002172 are both irrigation canals. The primary records for these resources were updated and are included as Appendix C in the Archaeological Survey Report (Shapiro and Kovak, 2007), which was submitted under separate cover due to confidentiality requirements.

In addition to the 13 cultural resource studies that were within the project area, 25 cultural resource studies have occurred within the one-mile radius of the project area. These include Cantwell (1976, 1977a, 1977b, 1977c, and 1978), Thorton (1978), Varner (1974, 1979, 1994, 2000), Hovey and Merriman (1999), Hovey (1999), Layland et al. (1999), Ptomey, S. (2001), Ptomey, K. (1990), Cherry (2001), Jones (2005), Archaeological Consulting and Research Services (1974), Marion (1977), Wren (1995), Szeto (1998), Billat (n.d.), Thal (2005), Bonner (2005), and Roper (2005).

Four previously recorded cultural resources are also located within the one-mile radius of the project area. Resource P-54-002170 is a small portion of an old blacktop road that is possibly a remnant of the “old homestead road.” Resource P-54-002173 is an earthen canal. Resource P-54-002174 is an earthen canal known as the Mill Creek Ditch. Resource P-54-002175 is an earthen canal known as the North Fork Persian Ditch.

Two “Noren” sites (N-10 and N-12) are located within the one-mile radius. Both sites are prehistoric habitation sites located by Oscar Noren. Noren was a local historian who noted the



locations of cultural resources in the area, but these have not been formerly recorded and are located beyond the project area. According to Noren's notes, Site N-10 is located on a "high bluff west side of Kings River, three and one-half mile southwest of Reedley where county line crosses river" (sic). Site N-12 is "near county line about one-half mile west of river on edge of circular ridge, the center being a hole about 15 feet deep, known to geologist as a blowout" (sic). Little else is known of these prehistoric habitation sites.

8.14.3.2 Pedestrian Archaeological Survey

A systematic archaeological field survey of the project area was conducted between February 13 and 19, 2007. Pacific Legacy project supervisor William Shapiro, directed the fieldwork and was assisted by archaeologists William Anderson, Nichole Jordan, and Amy Kovak. Mr. Shapiro has a Masters of the Arts and Sciences (M.A.) degree in Anthropology from California State University, Chico. He is a current member of the Register of Professional Archaeologists (RPA), has been actively involved in California archaeology and cultural resource management for 27 years, and meets the qualification standards in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* as an Archaeological Project Supervisor. Ms. Kovak has an M.A. degree in Anthropology from Pennsylvania State University. Mr. Anderson is currently completing the M.A. program at California State University, Chico. Ms. Jordan received her Bachelors of the Arts and Sciences (B.A.) degree in Anthropology from California State University, Sacramento. Each of these individuals meets or exceeds the Secretary of the Interior's qualification standards for their roles in the project. Resumes for the survey team are included in Appendix D of the Archaeological Survey Report (Shapiro and Kovak, 2007), which was submitted under separate cover due to confidentiality requirements.

In December 2006 and January 2007, KRCDD sent letters to all private landowners in the field survey area for the KRCDD CPP, including the project site, construction staging area, natural gas pipeline and associated staging areas, water pipelines (Option 1 and Option 2) and the electric transmission line to request written permission for property access to complete environmental surveys. In addition, KRCDD went door-to-door in an attempt to gain permission from landowners for completion of surveys. KRCDD was unable to gain permission from all landowners so only parcels where permission was obtained were accessed for onsite pedestrian field surveys. Parcels that were unable to be directly accessed were either viewed from adjacent or nearby parcels where access had been obtained or were viewed from the public right-of-way.

The accessible portions of the project area were surveyed for the presence of cultural resources with the aid of topographic and aerial maps depicting the project components and parcel and property owner information. The project area was inspected using systematic transects averaging 10 to 15 meters wide. Inspection of the electric transmission line route consisted of a

200 foot wide corridor (100 feet on either side of the route centerline). The water pipeline (Option 1 and Option 2) and natural gas pipeline routes primarily followed existing roadways in the public right-of-way, so the survey corridor in those areas was limited to the existing road right-of-way. The adjacent private properties along the water and gas pipeline routes were not inspected as they will be avoided. The natural gas pipeline construction staging areas were also surveyed. Portions of the project construction staging areas and sections of the various linear corridors were not surveyed as permission to access had not been received from the property owners. Parcels that were unable to be directly accessed were either viewed from adjacent or nearby parcels where access had been obtained or were viewed from the public right-of-way. Visibility was good to excellent in most of the project area. When vegetation obscured surface visibility, a trowel was used to expose the mineral soil for the presence of prehistoric cultural constituents (i.e., dark stained midden soil, shell fragments, faunal remains, lithic debitage, or historic refuse).

A total of 22 resources were identified and recorded within the surveyed portions of the project area. These resources are identified on Figures 2 through 7 in the Archeological Survey Report, which was submitted under separate cover. These resources include a ranch complex with standing structures located on the project site, a concrete foundation, an abandoned portion of the former Atchison, Topeka and Santa Fe Railroad grade, and 19 irrigation canal features (including the two previously recorded canal resources). Primary records for these resources were prepared or updated, and are included in Appendix C of the Archeological Survey Report (Shapiro and Kovak, 2007).

Table 8.14-2 and the following discussion summarize the results of the 22 recorded resources within the KRCDD CPP project area.

Table 8.14-2	
Summary of Recorded and Updated Resources in the Project Area	
KRCDD CPP	
Resource Number	Description
PLI 1	Ranch complex at 9664 South Bethel Avenue (Feature A-residence, Feature B-garage, Feature C- barn, and Feature D- outhouse)
PLI 2	Centerville and Kingsburg (C & K) canal (26' wide and 8' deep) (same canal as PLI 8 and PLI 13)
PLI 8	Selma Branch C & K canal (22' wide and 10' deep) and bridge crossing (42C-0123), (same as PLI 2 and PLI13)
PLI 9	Walnut Ditch (19' wide, 5' deep), concrete-lined irrigation canal
PLI 10	E. Kirby Ditch (17' wide, 5' deep), concrete-lined irrigation canal
PLI 11	Former railroad grade of the Atchison, Topeka and Santa Fe Railroad, portion northwest of Bethel is elevated and currently a paved driveway (about 30 feet wide).



Table 8.14-2 Summary of Recorded and Updated Resources in the Project Area KRCDD CPP	
Resource Number	Description
	Portion southeast of Bethel is dirt (78 feet wide). PLI 11 also crosses Adams Avenue Just south of Adams Avenue there is a bridge crossing (19 feet wide, 64 feet long) for the C & K canal (PLI 13)
PLI 13	C & K canal (3 feet wide, 7-8 feet deep) (same canal as PLI 2 and PLI 8)
PLI 14	Harp Ditch (19 ft wide) and concrete culvert
PLI 15	Cole Slough irrigation canal (38 feet and 9-12 feet deep) and concrete bridge (same as PLI 50)
PLI 20	Colony Ditch (27 feet wide, 6-7 feet deep), Feature A- orchard valve gate to the west side (2.9 feet by 3.5 feet), Feature B- concrete dam with wooden planks (11.5 feet by 31.1 feet), Feature C- concrete bridge (16 feet x 8 feet) with date "FEB 23, 1976", Feature D-dam (30.6 feet by 9.5 feet), Feature E-concrete bridge (14.5 feet by 17.5 feet), Feature F-bridge crossing at Floral Avenue (26 feet by 15.5 feet), Feature G- bridge crossing to 11122 Bethel Avenue (15 feet by 16 feet), Feature H- dam/gate (22 feet by 11 feet)
PLI 30	Ward Drainage Canal (44 feet wide and 12 feet deep) with corrugated metal culvert (3 foot diameter)
PLI 32	Concrete foundation (9.5 feet (N/S) by 15.7 feet (E/W), across Mountain View Avenue from PLI 31
PLI 33	Kingsburg Branch Canal (31.5 feet wide, 5.5-6 feet deep) with concrete culvert/bridge crossing at Mountain View Avenue
PLI 37	Santa Fe Canal (9 feet wide, 3-4 feet deep on north side of Mountain View Avenue) Feature A- culvert/concrete crossing at Mountain View Avenue, Feature B- bridge crossing to 14143 Mt. View, Feature C-concrete and wood dam, Feature D- crossing to 14259 Mountain View Avenue
PLI 50	Cole Slough (36 feet wide, 6-7 feet deep) Feature A-concrete dam/culvert (36 feet by 29 feet), Feature B-dam/gates (20.5 feet x 36 feet), Feature C- bridge crossing at Caruthers (37 feet x 27 feet), Feature D- concrete and wood dam (17.5 feet x 12 feet) (same as PLI 15)
PLI 55	Irrigation canal (7 feet wide, 3 feet deep) Feature A- concrete and wood dam (12 feet by 2 feet), Feature B- concrete dam (14 feet by 12.5 feet), Feature C- metal culvert (3 foot diameter) under RD 36, Feature D- concrete dam (12.5 feet by 22.5 feet), Feature E- corrugated metal culvert (2' diameter), Feature F- concrete culvert and gate (8.5 feet by 9.5 feet; culvert (2' diameter), Feature G- culvert (1 foot diameter) with gate
PLI 63	Caesar Canal (25 feet wide, 6 feet deep) with culvert (5 feet by x 3 feet)
PLI 67	McClanahan Ditch (27 feet wide, 5-6 feet deep)
PLI 70	Irrigation canal (15.5 feet wide, 3 feet deep), concrete-lined with concrete culvert (18 inch diameter)
PLI 77	Irrigation canal (13 feet wide, 6 feet deep) with a concrete bridge at RD 60, empties into a small pond west of RD 60



Table 8.14-2	
Summary of Recorded and Updated Resources in the Project Area	
KRCDD CPP	
Resource Number	Description
PLI 81	Irrigation canal (13 feet wide, 4 feet deep)
PLI 85	Mill Creek Ditch (28 feet wide, 5-6 feet deep) and concrete culvert (29.5 feet long by 7.5 feet wide)
PLI 88	North Fork irrigation canal (16 feet wide, 5 feet deep) and culvert (3 foot diameter)
P-54-002171	Traver Canal (44 feet wide, 5-6 feet deep) Feature A- bridge crossing at intersection of RD 40 and Ave 368, Feature B- pump on northeast corner of the bridge (“11.02 W-21” and “11.01 W-21”), Feature C- gate on south side of canal “11.03 W-21”, Feature D- concrete dam with associated gate, Feature E- concrete bridge crossing at Burke Dr., Feature F- gate (11.05 W-21) west of Burke Dr, Feature G-railroad trestle crossing canal , Feature H- concrete bridge at 6th Ave, Feature I- concrete bridge for north bound lanes of Hwy 99 with date “1931”, Feature J- concrete bridge for south bound lanes of Hwy 99, Feature K- concrete bridge over RD 36, Feature L- concrete gate west of RD 36 (“11.06 Taylor W-21”)
P-54-002172	Banks Ditch (34 feet wide, 3-4 feet deep) with recent concrete culvert under Highway 99

8.14.3.3 Recorded Resources

- PLI 1 is an abandoned ranch complex consisting of four standing structures (Features A-D) and a surrounding vineyard at 9664 South Bethel Avenue (i.e., KRCDD CPP project site). Feature A is the main residence (42 feet by 43.6 feet) constructed of cinderblocks, wood siding, and a composite roof. A 12 foot porch addition is located in the back of the house. The original construction of the residence dates to the 1920s-1930s. Feature B is a three-car garage (36.2 feet by 24 feet) behind the residence. It has a wood frame construction with stucco siding, a concrete slab floor and three metal roll-up doors. Feature C is a barn south of the garage constructed of 12 inch by 1 inch vertical boards, a corrugated metal roof, and an earthen floor. It measures 43 feet by 26.6 feet. Feature D is an outhouse that measures 4.6 feet by 3.7 feet. It is constructed of vertical wooden boards and a wooden shingle roof.
- PLI 2, 8, 9, 10, 13, 14, 15, 20, 30, 33, 37, 50, 55, 63, 67, 70, 77, 81, 85, 88 are all newly recorded irrigation canals within the project area. During the fieldwork, some of the irrigation canal segments were originally thought to represent separate resources. After plotting them on the topographic maps, it was apparent that they were segments of the same irrigation canal. Therefore, there are a total of 17 newly recorded irrigation canals.
- PLI 2, 8, 13 are all part of the Centerville and Kingsburg (C & K) Canal.
- PLI 9 and PLI 10 are parallel branches (Walnut and E. Kirby, respectively) of the C & K Canal system.



- PLI 14 is a segment of the Harp Ditch and is parallel to PLI 15, the Cole Slough.
- PLI 50 is also another segment of Cole Slough recorded further south. PLI 50 has four features: a concrete culvert, two concrete dams, and a bridge crossing.
- PLI 20 is the Colony Ditch and has eight features recorded: an orchard gate, three concrete dams, and four bridge crossings.
- PLI 30 is a segment of the Ward Drainage.
- PLI 33 is a segment of the Kingsburg Branch Canal.
- PLI 37 is a portion of the Santa Fe Canal with four features: a concrete culvert, two bridge crossings, and a dam.
- PLI 55 is an unnamed irrigation canal with nine features: three dams, five culverts, and debris gate with associated culvert.
- PLI 63 is a segment of the Caesar Canal.
- PLI 67 is a portion of McClanahan Ditch.
- PLI 70 is an unnamed canal with a double concrete culvert.
- PLI 77 is an unnamed irrigation canal with a concrete bridge.
- PLI 81 is an unnamed irrigation canal with a concrete culvert.
- PLI 85 is a portion of the Mill Creek Ditch with a concrete culvert.
- PLI 88 is a segment of the North Fork Persian Ditch with a concrete culvert.
- P-54-002171 and P-54-002172 are previously recorded irrigation canals that were relocated and updated records were prepared for them. P-54-002171 is the Traver Canal with 12 features being recorded along its route within the project area. The features include six bridges, three gates, a pump, a dam, and a railroad trestle crossing the canal. P-54-002172 is the Banks Ditch, an unlined irrigation canal with a concrete culvert.
- PLI 11 is the remains of the Atchison, Topeka, and Santa Fe Railroad grade. At its intersection with South Bethel Avenue, the western portion of the former railroad grade is a paved driveway. To the east of South Bethel Avenue, there is a 78 foot wide scar; no tracks remain. Another portion of PLI 11 was noted at its crossing with Adams Avenue where there is a trestle crossing the C & K Canal.
- PLI 32 is a concrete building foundation located on the north side of Mountain View Avenue just east of the Ward Drainage. It measures 9.5 feet (north-south) by 15.7 feet (east-west).

In addition to the 22 documented resources, the locations of two existing railroad crossings, two bridge crossings and 61 residences, ranch complexes, and/or buildings which are likely greater



than 45 years of age were noted and their locations plotted on project maps (see Archaeological Survey Report). These noted resources are located adjacent to and beyond the survey corridor. Table 8.14-3 summarizes these noted resources.

Table 8.14-3 Noted Resources (Located Beyond Survey Corridor or Active Railroads & Bridges) KRCDD CPP	
Resource Number	Description
PLI 3	Barn located adjacent and east of Indianola Avenue
PLI 4	Building remnant at northeast corner of parcel #25 (36 feet by 20 feet)
PLI 5	Victorian residence at 8262 Bethel Avenue
PLI 6	Two historic barns at northeast corner of Manning Avenue and Bethel Avenue
PLI 7	Ranch complex at 8471 Bethel Avenue
PLI 12	Ranch complex at 12625 East Lincoln Avenue
PLI 16	Residence at 13704 East Lincoln Avenue
PLI 17	Residence possible address at 13109 Adams Avenue
PLI 18	Two historic buildings on west side of Bethel Avenue
PLI 19	Residence at 9825 Bethel Avenue
PLI 21	Residence at 11122 Bethel Avenue
PLI 22	Residence at 11561 Bethel Avenue
PLI 23	Residence at 11654 Bethel Avenue
PLI 24	Residence at 11778 Bethel Avenue
PLI 25	Residence at 12370 Bethel Avenue
PLI 26	Residence at 12548 Bethel Avenue
PLI 27	Residence at 12774 Bethel Avenue
PLI 28	Residence at 12408 Mountain View Avenue
PLI 29	Residence at 12540 Mountain View Avenue
PLI 31	Residence at 12709 Mountain View Avenue
PLI 34	Residence at 12950 Mountain View Avenue
PLI 35	Residence possible address at 12940 Mountain View Avenue
PLI 36	Residence at 12906 Mountain View Avenue
PLI 38	Residence at 14143 Mountain View Avenue
PLI 39	Residence at 14282 Mountain View Avenue
PLI 40	Residence at 14417 Mountain View Avenue
PLI 41	Residence at 14500 E. Mountain View Avenue
PLI 42	Residence at 14601 E. Mountain View Avenue
PLI 43	Residence at 14709 E. Mountain View Avenue
PLI 44	Residence possible address at 14950 E. Mountain View Avenue
PLI 45	Residence (no address) northeast corner of Mountain View Avenue and Zediker Avenue
PLI 46	Residence at 15270 E. Mountain View Avenue



Table 8.14-3 Noted Resources (Located Beyond Survey Corridor or Active Railroads & Bridges) KRCDD CPP	
Resource Number	Description
PLI 47	Residence at 15277 E. Mountain View Avenue
PLI 48	Residence at 15468 E. Mountain View Avenue
PLI 49	Residence at 15926 E. Mountain View Avenue
PLI 51	Residence at 41342 Road 32
PLI 52	Residence possible address at 41179 Road 32, corner of Smith Avenue and Caruthers Avenue
PLI 53	Residence at 41168 Road 32
PLI 54	Residence and barn at 40980 Road 32
PLI 56	Residence at 3747 Avenue 408
PLI 57	Residence at 3872 Avenue 408
PLI 58	Residence at 3888 Avenue 408
PLI 59	Residence at 40649 Road 40
PLI 60	Old tank house and barn at 40484 Road 40
PLI 61	Residence at 40174 Road 40
PLI 62	Residence at 40045 Road 40
PLI 64	Residence at 39652 Road 40
PLI 65	Residence at 39461 Road 40
PLI 66	Residence at 39462 Road 40
PLI 68	Residence at 38977 Road 40
PLI 69	Residence at 38148 Road 40
PLI 71	Residence at 37428 Road 40
PLI 72	Residence (no address) on west side of Road 40 south of PLI 71
PLI 73	Residence (no address) on Road 40
PLI 74	Railroad (Southern Pacific)
PLI 75	Remains of cinderblock building on east side of Road 36 (north of Merritt Drive)
PLI 76	Barn on west side of Road 60
PLI 78	Concrete bridge on Road 60 at Cross Creek
PLI 79	Concrete bride on Road 60 at Cross Creek
PLI 80	Residence at 32399 Road 60
PLI 82	Railroad (Southern Pacific)
PLI 83	Residence at northwest corner of Road 60 and Avenue 308
PLI 84	Residence at 6257 Avenue 308
PLI 86	Residence at 30092 Road 68
PLI 87	Ranch Complex at 29797 Road 68



8.14.3.4 Historic Buildings and Structures Reconnaissance

In July 2007, JRP Historical Consulting, LLC (JRP), completed preparation of a Historic Resources Inventory and Evaluation Report (HRIER) for the KRCDD CPP. The HRIER assessed whether any of the buildings, structures and objects within the study area were eligible for listing in the California Register of Historical Resources (CRHR) or NRHP, and thus would qualify as historical resources under the California Environmental Quality Act (CEQA). The study area for the purposes of the HRIER was defined as the parcels containing buildings, structures or objects that fall within the boundaries of the project site, within a one-half mile buffer zone from the edge of the project site, and within one-half mile on either side of proposed electric transmission lines where it does not parallel an existing transmission line. There were 94 properties identified in the study area that contained buildings or structures that date to the historic period, which was defined for the project as having been constructed in 1962 or earlier. All 94 properties were evaluated in the HRIER and recorded on Department of Parks and Recreation (DRP) 523 forms.

The HRIER concluded that 90 of the 94 resources evaluated did not meet the significance criteria outlined in the CRHR and NRHP and therefore were not considered historical resources for the purposes of CEQA. The remaining four properties, all of which were residential homesteads, did meet the criteria for listing in the CRHR. These four properties were considered historical resources for the purposes of CEQA. Proposed construction of the KRCDD CPP and associated transmission line will not result in the physical destruction or material alteration of these resources and therefore the proposed KRCDD CPP will not cause any significant impacts to these four resources. The HRIER, which includes the evaluation of and DPR forms for all 94 resources, was submitted under separate cover due to confidentiality requirements.

8.14.3.5 Native American Correspondence

Pacific Legacy consulted with the California NAHC on December 18, 2006 and prior to the initiation of field work. The NAHC was asked to search their Sacred Lands Inventory File and to submit a list of local Native American representatives for the project area. They responded on December 26, 2006 that no known sites were within the current project area; however, they provided a contact list of local groups and individuals. Contact letters were sent on January 3, 2007. Follow-up phone calls were made to Native American representatives on January 31, 2007. Only one individual, Lawrence Bill, was reached. He expressed his concerns of encountering human remains. No other responses have been received from any of the other Native American contacts. All consultation correspondence is included in Appendix B of the Archaeological Survey Report (Shapiro and Kovak, 2007).



8.14.3.6 Local Historical Societies, Museums and Agency Consultation

In addition to the CHRIS, local historical societies, museums and libraries were also contacted to solicit information they may have with regard to resources and previous land use of the project area. Contacts include the Fresno County Library, Fresno County Historical Society, Tulare County Historical Society, Tulare County Planning Department, Tulare County Museum, and the Reedley Museum. The Fresno County Public Library was the only positive response and they provided a copy of the Fresno County Historical Landmarks and Records Commission – Interim Site Index. This index is comprised of local historic properties that had been compiled from the NRHP, the California Historical Landmark List, the Native Sons of the Golden West, the City of Fresno Historic Properties List, the Fresno County Historic Landmarks and Records Advisory Commission List, and the E Clampus Vitus list. A copy of the Index is provided in Appendix A of the Archaeological Survey Report (Shapiro and Kovak, 2007) along with the various records of conversation.

8.14.4 ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences with regard to archeological and cultural resources from the construction and operation of the proposed KRCDD CPP.

8.14.4.1 Significance Criteria

Appendix G, Environmental Checklist Form, of CEQA addresses significance criteria with respect to cultural resources (Public Resources Code Sections 21000 et seq.). Appendix G (V) (a,b,d) indicates that an impact would be significant if the project will:

- Cause a substantial adverse change in the significance of a historical resource;
- Cause a substantial adverse change in the significance of an archaeological resource; and
- Disturb any human remains, including those interred outside of formal cemeteries.

8.14.4.2 Construction Impacts

The records search, pedestrian field inventory, and architectural reconnaissance resulted in the discovery of 22 historic archaeological resources in the KRCDD CPP project area. These consist primarily of functioning irrigation canals and associated features, an historic ranch complex, a concrete foundation remnant and the remains of the former Atchison, Topeka and Santa Fe Railroad grade. Two previously recorded archaeological sites (both consisting of irrigation canal features) were identified and updated during the cultural resources survey of the project area. No prehistoric resources, traditional cultural properties, or cultural resources listed on the NRHP or the California Register of Historical Properties (CRHP) were identified within or near the project area based on record search results and Native American correspondence.



Twenty-one of the 22 historic archaeological resources were identified along the proposed transmission line, water pipeline (Option 1 and Option 2) and natural gas pipeline routes. These 21 resources will not be impacted as the various utility routes will avoid impacting the resources.

The remaining resource (PLI-1) is the historic ranch complex comprised of a residence, barn, garage and outhouse buildings and which is located on the proposed project site. The on-site structures will need to be removed prior to construction activities on the project site. Resource PLI-1 does not meet the criteria for listing in the CRHR, nor does it appear to be a historical resource for the purposes of CEQA. The Minimal Traditional-style residence was built about 1935, probably by the landowners and tenants of the property at the time, Floyd and Stella Barr. The associated outbuildings also appear to date to the late 1930s.¹

Although the old Barr Ranch retains a fair to high degree of integrity to its original appearance, the property does not appear to be either historically or architecturally significant. The rural agricultural district between the cities of Selma and Parlier, in which the Barr family ranch is located, has been settled and farmed since at least the 1870s when both large-scale irrigation and the railroad reached the region. By the turn of the twentieth century, virtually every agricultural parcel between Selma and Parlier had been settled and was being actively farmed, predominantly planted to raisin or wine grapes.²

The Barr Ranch, developed decades after the study area had been firmly established as a productive agricultural district, does not adequately represent events or trends important in state or local history. Additionally, available evidence does not suggest that Floyd or Stella Barr, nor any of the subsequent owners of the farm, made significant contributions to our history. Finally, the buildings that comprise the farmstead, whether considered individually or as a group, do not appear significant in terms of their architecture or construction. The Minimal Traditional residence is of a design and style common to the decade of the 1930s, as is the adjacent tripartite barn. Lacking historical and architectural significance, resource PLI-1 does not meet the criteria

¹ The 1935 construction date for the residence is derived from the First American Real Estate Solutions online database, accessed in February 2007, in which parcel information is based on information provided by the Fresno County Assessor's office. The estimated date of construction is consistent with the appearance of the residence – a typical and straightforward execution of the Minimal Traditional style – as well as information gleaned from a variety of historical sources: Aerial photographs dated 1937 and 1950, on file in the McHenry Library Map Collection, Fresno State University, Fresno; USGS topographical quadrangles, *Selma, Calif.*, 1924 and 1946; *Atlas of Fresno County* (Fresno: Progressive Map Service, 1920 and 1935).

² Charles W. Clough and William B. Secrest, Jr., *Fresno County – The Pioneer Years: From the Beginning to 1900* (Fresno: Panorama West Books, 1984), 173-175; Thos. H. Thompson, *Official Historical Atlas Map of Fresno County* (Office of the Board of Supervisors of Fresno County, 1891); Department of Commerce, Bureau of the Census, Population Schedules for Fruitvale District, 1880, 1900, 1910, 1920, and 1930.



for listing in the CRHR and does not appear to be a historical resource for the purposes of CEQA. Additional information on this resource is included in the HRIER, which was submitted under separate cover.

In addition to the 22 recorded resources, the locations of 66 adjacent ranch complexes, residences, bridges and railroad crossings were also noted and locations plotted onto project maps. These 66 resources will not be impacted as they are located beyond the project linear corridors and outside of the project area.

8.14.4.3 Mitigation Measures

Although no significant archaeological and historical sites should be impacted by the KRCDD CPP, it is possible that subsurface construction could encounter buried archaeological remains. Therefore, appropriate mitigation measures will be implemented including a requirement that construction stop if cultural resources are inadvertently discovered. These measures, which are described further below, will also include: (1) retaining a qualified archaeologist (QA) to be on-call to investigate any cultural resources finds made during construction, (2) implementing a construction worker training program, (3) providing procedures for halting construction in the event that there is an inadvertent discovery of archaeological deposits or human remains, (4) providing procedures for evaluating an inadvertent archaeological discovery; and (5) providing procedures to mitigate adverse impacts on any inadvertent archaeological discovery determined to be significant. The following mitigation measures are proposed for the KRCDD CPP.

Qualified Archaeologist

The project owner will retain a QA who meets the qualification standards in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* as an archeological project supervisor who will be available during the entire construction period to inspect and evaluate any finds of buried archaeological resources that might occur during construction. The QA will have the experience to evaluate the significance of the deposits, consult with regulatory agencies, and plan site evaluation and mitigation activities. If there is a discovery of archaeological remains during construction, the QA, in conjunction with the project Construction Superintendent and CEC Compliance Project Manager (CPM) will make certain that all construction activity stops in the immediate vicinity of the find until the find can be evaluated. The QA will inspect the find and evaluate its potential significance, in consultation with CPM. The QA will make a recommendation as to the significance of the find and any measures that will mitigate adverse impacts of construction on significant find.



Construction Worker Training

Implementation of a construction worker training program would ensure implementation of CEC-approved stop-construction measures in the event that cultural resources are discovered during construction. The designated QA will conduct a worker education session for construction supervisory personnel to explain the importance of, and legal basis for, the protection of significant archaeological resources. The training will include photographs and/or cast mold replicas of various types of historic and prehistoric artifacts and will describe the specific steps that will be taken in the event of an unanticipated discovery of cultural material, to include human remains. The training will also be recorded on digital video disk (DVD) and copies will be distributed to all construction personnel.

Monitoring

Due to the archaeological sensitivity of the KRCDD CPP project site, monitoring of the subsurface construction activity may be necessary to avoid potential impacts to buried archaeological resources. The QA will monitor initial subsurface construction and also the excavation for the main foundations. After this initial monitoring, the QA will make a reassessment as to the need for further monitoring, based on any findings to that point as well as on a geological assessment of the depth of the soil layer within which archaeological deposits might be found.

Emergency Discovery/ Inadvertent Discovery of Human Burials

If the construction staff or others identify archaeological resources during construction, they will immediately notify the QA and the site superintendent, who will halt construction in the immediate vicinity of the find, if necessary. The QA will delineate the area of the find within which construction will halt (through use of flagging or construction easement fencing). This area will include the excavation trench from which the archaeological finds came as well as any spoils piles of dirt from that area. Construction will not take place within the delineated find area until the QA, in consultation with the CEC CPM, can inspect and evaluate the find.

If human remains are encountered during construction, project officials are required by law (California Health and Safety Code 7050.5) to contact the county coroner. If the coroner determines that the find is Native American, the coroner is required to contact the NAHC. The NAHC is required (Public Resources Code (PRC) 5097.98) to determine the Most Likely Descendant (MLD), notify that person or persons and request that they inspect the burial and make recommendations for treatment or disposal.

Site Recording and Evaluation

The QA will follow accepted professional standards in recording any find and will submit the standard DPR 523 historic site forms and location information to the Southern San Joaquin



Valley Information Center of the CHRIS. If the QA determines that the find is not significant, construction will proceed. If the QA determines that further information is needed to determine whether the find is significant, the CEC and the State Historic Preservation Office (SHPO) will be notified, and the QA will prepare a plan and a timetable for evaluating the find, in consultation with the CEC and SHPO.

Mitigation Planning

If the QA and the consulting parties (CEC staff and SHPO) determine that the find is significant, they will prepare and carry out a mitigation plan in accordance with state and federal guidelines. This plan will emphasize the avoidance, if possible, of significant archaeological resources. If avoidance is not possible, recovery of a sample of the deposit from which archaeologists can define scientific data to address archaeological research questions will be considered an effective mitigation measure for damage to or destruction of the deposit.

The mitigation program, if necessary, will be carried out as soon as possible to avoid construction delays. Construction will resume at the site as soon as the field data collection phase of any data recovery efforts is completed. The QA will verify the completion of field data collection by letter to the project owner and the CEC CPM so that the project owner and the CEC CPM can authorize resuming construction.

Curation

The QA will arrange for curation of archaeological materials collected during the monitoring and mitigation program at a curation facility that meets the secretary of the interiors guidelines, that is, a recognized, nonprofit archaeological repository with a permanent curator and appropriate environmental controls. The QA will submit field notes, stratigraphic drawings, and other materials developed as part of the archaeological excavation program to the curation facility along with the archaeological collection.

Report of Findings

If buried archaeological deposits are found during construction, the QA will prepare a report summarizing the monitoring and archaeological investigatory program implemented to evaluate the find or to recover data from an archaeological site as a mitigation measure. This report will describe the site soil and stratigraphy, describe and analyze artifacts and other materials recovered, and determine the site's significance. This report will be submitted to the CHRIS and the designated curation facility housing the collection.



8.14.4.4 Cumulative Impacts

The KRCD CPP will not affect known significant cultural resources, and thus will not be likely to cause significant cumulative impacts. If construction were to encounter a large, stratified, buried prehistoric archaeological site or discrete filled-in historic period features, the possibility of cumulative impacts will arise because such sites might be highly significant, and many have been destroyed or damaged by agricultural activity and/or commercial/industrial/residential development in the project vicinity. Any potential impact to an unknown site would be minimized by a stop-work procedure if a site were uncovered.

8.14.5 LAWS, ORDINANCES, REGULATIONS AND STANDARDS

Table 8.14-4 and the following paragraphs summarize the various federal, state and local LORS which apply to the KRCD CPP with regard to cultural resources.

Table 8.14-4 Cultural Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability/AFC Section Reference
National Historic Preservation Act of 1966 (NHPA) (16 United States Code (USC) Section 470f)	Provides for coordination when a federally licensed undertaking may cause irreparable damage to significant cultural resources	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1
Archaeological Resources Protection Act of 1979 (ARPA)	Provides for coordination when a federally licensed undertaking may cause irreparable damage to significant cultural resources	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1
National Environmental Policy Act (NEPA)	Provides for an analysis of environmental impacts on federal lands or for projects requiring federal money, assistance or permits.	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1
Native American Graves Protection and Repatriation Act of 1990 (NAGPRA)	Establishes mechanisms for rights in Indian tribes to claim ownership to human remains and certain cultural items.	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1

Table 8.14-4 Cultural Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability/AFC Section Reference
American Indian Religious Freedom Act (AIRFA)	Allows access to sites of religious importance to Native Americans and assigns penalties for vandalism and the unauthorized collection of archaeological resources on federal land.	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1
Secretary of the Interior’s Standards and Guidelines	Responsible for establishing professional standards and providing guidance related to the preservation and protection of cultural resources	The KRCD CPP will not result in a federal undertaking; therefore the regulation does not apply. See Section 8.14.5.1
CEQA Guidelines and Applicable PRC Sections including 21098.1, 21084.1, 15331, 15064.5, 5020.1 and 5024.1	A historical resource for the purposes of CEQA compliance is defined as a resource listed in, or determined eligible for listing in the CRHR.	All KRCD CPP activities related to the protection of cultural resources will be in compliance with state standards. See Section 8.14.5.2
California Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98	The disposition of Native American burials is governed by and under the jurisdiction of the NAHC.	The KRCD CPP will contact the NAHC if any human remains are discovered. See Section 8.14.4.3
Fresno & Tulare County general plans	These documents identify significant historic and prehistoric resources, and provides for the preservation of representative and worthy examples. In addition, the general plans recognize the value of historic and prehistoric resources, and assesses current and proposed land uses for impacts upon those resources.	The KRCD CPP in will comply with applicable general plan requirements. See Section 8.15.5.3

8.14.5.1 Federal

Federal protection for significant archaeological resources would apply to the KRCD CPP if any construction or other related project impacts take place on federally managed lands, or if certain federal entitlements were required. While it is assumed that federal regulations will not apply to the KRCD CPP they are nonetheless included in this section for reference and for completeness.

Archaeological and architectural resources (buildings and structures) are protected through the NHPA (16 USC Section 470f) and its implementing regulations, which include the Protection of Historic Properties (36 Code of Federal Regulations (CFR) Part 800), the Archaeological and Historic Preservation Act of 1976, and the Archaeological Resources Protection Act of 1979 (ARPA). Section 106 of the NHPA requires applicable federal agencies prior to implementing an “undertaking” (e.g., issuing a federal permit), to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation (ACHP) and the SHPO a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing on the NRHP. Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a tribe to be determined eligible for inclusion in the NRHP.

Under the NHPA, a find is significant if it meets the NRHP listing criteria at 36 CFR 60.4, which includes:

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

That are associated with events that have made a significant contribution to the broad patterns of our history; or

That are associated with the lives of persons significant in our past; or

That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

That has yielded, or may be likely to yield, information important in prehistory or history.

Cultural institutions, lifeways, culturally valued viewsheds, places of cultural association, and other valued places and social institutions must also be considered under NEPA, Executive Order 12898 as well as other applicable authorities including Executive Order 13006, Executive Order 13007, and the NAGPRA.



The AIRFA allows access to sites of religious importance to Native Americans. On federal land, ARPA and NAGPRA would apply. ARPA assigns penalties for vandalism and the unauthorized collection of archaeological resources on federal land and provides for federal agencies to issue permits for scientific excavation by qualified archaeologists. NAGPRA assigns ownership of Native American graves found on federal land to their direct descendants or to a culturally affiliated tribe or organization and provides for repatriation of human remains and funerary items to identified Native American descendants.

If any federal permits are required for a project then the NHPA and its implementing regulations (16 USC 470 et seq., 36 CFR 800, 36 CFR 60, and 36 CFR 63) will also apply. The NHPA establishes the federal government's policy on historic preservation and the programs, including the NRHP, through which that policy is implemented. Under the NHPA, historic properties include "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP" (16 USC 470w (5)).

The Secretary of the Interior is responsible for establishing professional standards and providing guidance related to the preservation and protection of all cultural resources listed in, or eligible for, listing in the NRHP. The Secretary of the Interior's Standards for the Treatment of Historic Properties apply to all grant-in-aid projects assisted through the National Historic Preservation Fund, and are intended to be applied to a wide variety of resource types, including buildings, structures, sites, objects, and districts. The treatment standards, developed in 1992, were codified as 36 CFR 68 entitled, "The Secretary of the Interior's Standards for Historic Preservation Projects."

8.14.5.2 State

CEQA requires a determination if a proposed project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group. A historical resource for the purposes of CEQA compliance is defined as a resource listed in, or determined eligible for listing in the CRHR. The CRHR lists properties that are to be protected from substantial adverse change and includes properties, which are listed or have been formally determined to be eligible for listing in the NRHP, State Historic Landmarks, and eligible Points of Historical Interest.

Historical Resources

CEQA applies to discretionary projects and equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1) and defines substantial adverse change as demolition, destruction, relocation, or alteration that would impair historical significance (Section 5020.1). Section 21084.1 stipulates



that any resource listed in, or eligible for listing in, the CRHR is presumed to be historically or culturally significant.

Resources listed in a local historic register or deemed significant in a historical resource survey (as provided under Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not. A resource that is not listed in or determined to be eligible for listing in the CRHR, not included in a local register or historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant (Section 21084.1). PRC Section 21098.1 stipulates that:

“A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.”

For the purposes of this section, a historical resource is a resource listed in, or determined to be eligible for listing in, the CRHR. Historical resources included in a local register of historical resources, as defined in subsection (k) of Section 5020.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR, not included in a local register or historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be a historical resource for purposes of this section.

PRC Sections 5020.1 and 5024.1 provide the following definitions:

Historic District - a definable unified geographic entity that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

Historical Landmark - any historical resource that is registered as a state historical landmark pursuant to Section 5021.

Historical Resource - includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic agricultural, educational, social, political, military, or cultural annals of California.



Local Register of Historic Resources - a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

Substantial Adverse Change - demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired.

Archaeological Resources

New CEQA guidelines became effective January 1, 1999. Where a project may adversely affect a unique archaeological resource, Section 21083.2 requires the Lead Agency to treat that effect as a significant environmental effect and prepare an Environmental Impact Report (EIR). When an archaeological resource is listed in, or eligible to be listed in, the CRHR, Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a proposal may have a potential adverse effect on archaeological resources.

PRC 21083.2 (g) defines a unique archaeological resource to be:

An archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Section 21084.1 requires treatment of any substantial adverse change in the significance of a historical resource listed in or eligible to be listed in the CRHR as a significant effect on the environment. A historical resource can be an archaeological resource listed in or formally determined eligible for listing in the CRHR and by reference, the NRHP, California Historical Landmarks, Points of Historical Interest, and local registers (see Section 5020.1 and 5024.1).



To resolve conflicts between the narrow and limiting statutory provision for mitigation of archaeological resources and the broadly protective statutory provision for determining the significance of historical resources, Section 15064.5 provides that to the extent an archaeological resource is also a historical resource, the provisions regarding historical resources apply. These new provisions endorse the first set of standardized mitigation measures for historic resources by providing that projects following the Secretary of the Interior's Standards for Treatment of Historic Properties shall be considered as mitigated to a less-than-significant level. Other provisions put lead agencies on notice that, in many circumstances, the very popular method of mitigating impacts on historical resources by way of documentation (e.g., narrative, photographs, architectural drawings) will not mitigate the effects to a point where clearly no significant effect on the environment would occur. In Section 15331, a new categorical exemption is added for projects limited to restoration or rehabilitation of historic resources consistent with the Secretary of the Interior's Standards (Gorsen, 1999).

Native American Burials

Other state requirements for cultural resources management are written into the California PRC Chapter 1.7, Section 5097.5 (Archaeological, Paleontological, and Historical Sites), and Chapter 1.75, beginning at Section 5097.9 (Native American Historical, Cultural, and Sacred Sites) for lands owned by the state or a state agency. The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code and Sections 5097.94 and 5097.98 of the PRC and fall within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified within 24 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the Coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98 will immediately notify those persons it believes to be most likely descended from the deceased Native American so they can inspect the burial site and make recommendations for treatment or disposal.

8.14.5.3 Local

Both the Fresno and Tulare county General Plans both include policies for the preservation and protection of cultural resources. These documents identify significant historic and prehistoric resources, and provides for the preservation of representative and worthy examples. In addition, the general plans recognize the value of historic and prehistoric resources, and assesses current and proposed land uses for impacts upon those resources.

The County of Fresno's General Plan and EIR (County of Fresno, 2000) addresses potential impacts of future development on historical and prehistoric resources in the County. The General Plan contains the following policies aimed at preserving and protecting cultural



resources. These policies seek to preserve the historical, archeological, paleontological, geological, and cultural resources of the county through development review, acquisition, encouragement of easements, coordination with other agencies and groups, and other methods.

The County of Tulare (Minter & Associates, 2006) has drafted its own goals and policies regarding the protection of cultural resources in order to protect sites of cultural and archaeological importance for the benefit of present and future generations. These policies seek to preserve cultural resources or when this is not feasible, to mitigate impacts, by relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records. Other policies that are being implemented include supporting local, state, and national education programs on cultural and archaeological resources and supporting public and private efforts to preserve, rehabilitate, and continue the use of historic structures. In addition the county will be encouraging public support for the preservation of these resources; soliciting input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance. The county will also maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

8.14.6 INVOLVED AGENCIES AND AGENCY CONTACTS

Table 8.14-5 lists the state agencies involved in cultural resources management for the project.

Table 8.14-5 Agency Contacts KRCD CPP		
Issue	Agency Name/Address	Telephone
Native American traditional cultural properties	NAHC 915 Capitol Mall, Room 364 Sacramento, CA 95814	(916) 653-4040

8.14.7 PERMITS REQUIRED AND SCHEDULE

Other than certification by the CEC, no state, federal, or local permits are required by the project for the management of cultural and archaeological resources.

8.14.8 REFERENCES

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