

## 5.3 Cultural Resources

This section discusses the potential effects of the Lodi Energy Center (LEC) on cultural resources. Section 5.3.1 describes the cultural resources environment that might be affected by the LEC. Section 5.3.2 discusses the environmental consequences of construction and operation of the proposed project. Section 5.3.3 determines whether there will be any cumulative effects from the project. Section 5.3.4 presents mitigation measures that will be implemented to avoid construction impacts. Section 5.3.5 discusses the laws, ordinances, regulations, and standards (LORS) applicable to the protection of cultural resources. Section 5.3.6 lists the agencies involved and agency contacts, and Section 5.3.7 discusses permits. Section 5.3.8 lists reference materials used in preparing this section.

This section is consistent with state regulatory requirements for cultural resources pursuant to the California Environmental Quality Act (CEQA). Cultural resources include prehistoric and historic archaeological sites;<sup>1</sup> districts and objects; standing historic structures, buildings, districts and objects; locations of important historic events, and sites of traditional/cultural importance to various groups.<sup>2</sup> The study scope was developed according to California Energy Commission's (CEC) cultural resources guidelines and complies with *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification* (CEC, 1992) and *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007). This study was conducted by Clint Helton, M.A., RPA and Natalie Lawson, M.A., RPA, Cultural Resource Specialists (CRS) who meet the qualifications for Principal Investigator stated in the Secretary of the Interior's standards and guidelines for archaeology and historic preservation (USNPS, 1983).

Per CEC Data Adequacy requirements, Appendix 5.3A provides copies of agency consultation letters. Appendix 5.3B provides the technical report. Appendix 5.3C provides archival research material, including copies of historic maps of the project and a complete copy of the California Historical Resources Information System (CHRIS) literature search results, which include copies of previous technical reports occurring within 0.25 mile of the

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<sup>1</sup> Site is defined as "The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure...where the location itself possesses historic, cultural, or archeological value" (U.S. National Park Service [USNPS]-IRD, 1991: 15).

<sup>2</sup> The federal definitions of cultural resource, historic property or historic resource, traditional use area, and sacred resources are reviewed below and are typically applied to non-federal projects.

A cultural resource may be defined as a phenomenon associated with prehistory, historical events, or individuals or extant cultural systems. These include archaeological sites, districts, and objects; standing historic structures, districts, and objects; locations of important historic events; and places, objects, and living or non-living things that are important to the practice and continuity of traditional cultures. Cultural resources may involve historic properties, traditional use areas, and sacred resource areas.

Historic property or historic resource means any prehistoric district, site building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP). The definition also includes artifacts, records and remains that are related to such a district, site, building, structure or object.

Traditional use area refers to an area or landscape identified by a cultural group to be necessary for the perpetuation of the traditional culture. The concept can include areas for the collection of food and non-food resources, occupation sites and ceremonial and/or sacred areas.

Sacred resources applies to traditional sites, places or objects that Native American tribes or groups, or their members, perceive as having religious significance.

project. Appendix 5.3D provides names and qualifications of personnel who contributed to this study. Appendix 5.3E provides maps of the project and previously conducted studies that occurred within one mile of the project. Appendixes 5.3C and 5.3E are being filed under a request for confidentiality.

The project does not require review under federal regulations such as the National Historic Preservation Act (NHPA) and the Archaeological and Historic Preservation Act of 1974 (16 U.S. Code 469), among others, because it is not a federal undertaking (federally permitted or funded).

### 5.3.1 Affected Environment

In central California, cultural resources extend back in time for at least 11,500 years. Written historical sources tell the story of the past 200 years. Archaeologists have reconstructed general trends of prehistory in central California.

Several chronologies have been proposed for central California archaeology. Generally, these chronologies are variations based on the general California chronology, which consists of an Early Horizon, a Middle Horizon, and a Late Horizon (Fredrickson 1974, Elsasser 1978). However, wide regional differences in central California, as well as significant temporal overlap between site types classified into these three horizons, prevented clear distinctions between horizons. Eventually, a model was proposed for central California that primarily emphasized the patterns of cultural identity and deemphasized associated occupation dates (Moratto 1984).

#### 5.3.1.1 Regional Setting

The project site is adjacent to the City of Lodi's White Slough Water Pollution Control Facility (WPCF) to the east, treatment and holding ponds associated with the WPCF to the north, the existing 49 MW Northern California Power Agency (NCPA) Combustion Turbine Project #2 (STIG plant) to the west, and the San Joaquin County Mosquito and Vector Control facility to the south. The project site is on land owned and incorporated by the City of Lodi, and is approximately 6 miles west of the Lodi city center. The city of Stockton is approximately 2 miles to the south. The project site is currently undeveloped and is used for equipment storage during upgrades to the WPCF.

A proposed natural gas line runs east from the main project area 2.5 miles through agricultural fields, south of the Lodi-Kingdon airfield, and along West Armstrong Road. Rural residences and farmhouses are also located in the vicinity of the gas line. The proposed gas line crosses the Union Pacific Railroad (historically the Western Pacific Railroad) on the eastern end of the project area and connects to an existing pipeline on the east side of the rail line. The LEC site is located in the San Joaquin Valley in an area with recent sedimentary and metasedimentary fan deposits and basin deposits (Strand and Koenig, 1965) and the site is relatively flat.

#### 5.3.1.2 Paleo-Indian Period (12,000 to 5,000 years ago)

The general trend throughout California prehistory has been an increase in population density over time, coupled with greater sedentism and the use of a greater diversity of food resources. There is abundant evidence that humans were present in the New World for at

least the past 11,500 years. There is also fragmentary, but growing, evidence that humans were present long before that date. Linguistic and genetic studies suggest that a date of 20,000 to 40,000 years ago for the human colonization of the New World may be possible. The evidence of this earlier occupation is not yet conclusive, but it is beginning to be accepted by archaeologists. The Meadowcroft Rockshelter in Pennsylvania and Monte Verde in Chile, for instance, are two early sites that have produced apparently reliable dates as early as 12,500 years before present. These earliest known remains indicate very small, mobile populations, apparently dependent on hunting of large game animals as the primary subsistence strategy.

The earliest sites in the San Joaquin Valley are Fluted Point Tradition and Western Pluvial Lakes Tradition sites found at Tracy, Tulare, and Buena Vista lakes. These sites are few in number and remain undated by scientific means but the assemblage types indicate probable ages of 11,500 to 7,500 years old. Deposition in the San Joaquin Valley is quite active; many older sites are likely buried under rapidly building alluvial deposits (Moratto, 1984).

#### **5.3.1.2.1 Windmill Pattern (5,000 to 3,000 years ago)**

The Windmill Pattern generally coincides with Fredrickson's Early Horizon (1974) and the majority of the known Windmill Pattern sites date to approximately 5,000 to 2,250 years ago. A small number of Windmill sites date as late as 1,250 to 750 years ago. Windmill populations moved seasonally between the valleys in the winter and the Sierra Nevada foothills in the summer. Fishing and hunting were the primary subsistence strategies and Windmill sites are characterized by tools related to hunting, fishing, as well as milling and include mortars, baked clay balls, trident fish spears, two types of angling hooks, pecan sized baked clay that appear to have been used as fish line sinkers, bone awls and needles, polished charmstones, shell working and shell appliqué, and flaked tools, including projectile points (Moratto, 1984).

#### **5.3.1.2.2 Berkeley Pattern (3,000 to 1,250 years ago)**

The Berkeley Pattern coincides roughly with the Middle Horizon and the majority of known Berkeley Pattern sites date to approximately 2,500 to 1,250 years ago. A small number of Berkeley sites extend outside of this time frame and date as early as 3,200 years ago and as late as 500 years ago. In response to environmental technological factors, economies became more diversified, and sedentism developed further while population growth and expansion occurred. The Berkeley Pattern subsistence relied less on hunting and fishing than the Windmill Pattern; rather the focus appears to have been on acorns. Mortars and pestles are present in far greater numbers at Berkeley sites. Other artifacts characterizing Berkeley sites include greater numbers of bone tools of superior manufacture, distinctive diagonal flaking of large concave base points, shell beads and ornaments.

#### **5.3.1.2.3 Augustine Pattern (1,250 to 250 years ago)**

The Augustine Pattern coincides approximately with the Late Horizon and generally dates from 1,250 to 250 years ago. Augustine Pattern sites are much more widespread than Berkeley Pattern sites and are characterized by intensive fishing, hunting, and acorn gathering. Population densities are much higher; exchange systems are more sophisticated and include the advent of using clamshell disk beads for good exchange. High variability in funerary artifacts seems to indicate more social stratification. Cremations and flexed burials are common. Artifacts associated with the Augustine Pattern include the bow and arrow,

shaped mortars and pestles, and pottery in some parts of the central San Joaquin Valley (Moratto, 1984).

### 5.3.1.3 Ethnographic Setting

The LEC project area was occupied ethnographically by the Yokuts (Kroeber, 1925; Wallace, 1978). The Yokuts are unique among Native Californians in that they were divided into true tribes. Each tribe had a unique name, a distinctly different dialect, and a defined territory (Kroeber, 1925). The Yokuts language is a member of the California Penutian stock that includes four other groups found in central California, Miwok, Costanoan, Maiduan, and Wintuan. Yokuts were divided into three groups: the Southern Valley Yokuts, the Northern Valley Yokuts, and the Foothill Yokuts. Specifically, the project area is situated within the traditional lands of the Northern Valley Yokuts, of whom the least is known. The Northern Valley Yokuts rapidly disappeared once Europeans reached the area as a result of disease, missionization, and most importantly, the gold rush.

The San Joaquin River was the center of the Northern Yokuts territory and their settlement and subsistence were heavily reliant on the river and its sloughs. Villages were placed on low mounds, above the flood levels and near larger bodies of water. The structure of the Northern Yokuts village is unknown but assumed to be quite similar to the groups to the north and south of the Northern Yokuts and based on the single family (Wallace, 1978; 466). Members of a tribe lived in one principal settlement, periodically leaving the settlement during the spring floods to move to higher ground. The group would divide into smaller groups during different harvesting seasons, leaving a small group at the main settlement. Generally, the tribes stayed at the main settlement as food near the village was very abundant. Fish, mussels, pond turtles, waterfowl, tule elk, pronghorn antelope, jackrabbits, squirrels, and quails were all found in abundance in and near the water. Salmon, in particular, is noted as a prime source of food in historical accounts of the Northern Yokuts. Acorns from valley oaks and tule roots were ground into a meal and cooked as a thick soup or gruel.

During the Spanish and Mexican Periods, 1769-1846, the Northern Yokuts rapidly declined in population. European disease swept through the San Joaquin Valley. In 1833, a particularly virulent malaria epidemic wiped out entire tribes. Decreasing native populations along the coast resulted in the Franciscan friars pulling neophytes from further and further inland. Many of the Northern Yokuts were taken to the San Jose, Santa Clara, Soledad, San Juan Bautista, and San Antonio missions. It is not clear if the neophytes willing left the San Joaquin Valley (Wallace, 1978). During the Mexican Period, Northern Yokuts, who had been successfully stealing animals from the new ranches, clashed with ranchers. Finally, during the American Period, which began in 1846, the Northern Yokuts were further decimated by the thousands of prospectors who descended upon the San Joaquin Valley in search of gold (Wallace, 1978).

Most of the Northern Valley Yokuts who lived near the project area are now gone; in October of 2007 when the U.S. government issued direction regarding the return of funerary items to the Yokuts found in the 1930s near Lodi, the Santa Rosa Indian Community was determined to receive these items. The Santa Rosa Indian Community, also known as the Tachi Yokuts tribe, is located approximately 150 miles south of where the items were found (Federal Register; V. 72, No. 164; Friday, August 24, 2007; Notices).

#### 5.3.1.4 Historic Setting

In 1542, Juan Rodriguez Cabrillo explored the California coast by ship. Much of the early exploration of California was conducted this way and the interior of California, including the San Joaquin Valley, remained unexplored by Europeans until the beginning of the Spanish Period.

The Spanish period spans the years from 1769 to 1822 in California beginning with the founding of the first mission, the Mission San Diego de Alcala in 1769. It was not until March of 1772 that the first formal European expedition, led by Pedro Fages, entered the northern San Joaquin Valley. Fages went in search of the first Europeans to actually enter the San Joaquin Valley, Spanish deserters. The other purpose of the Fages expedition was to find an overland route to Point Reyes and the company kept to the shoreline until they reached the mouth of the San Joaquin River and first observed the valley (Smith, 2004). Shortly after the Fages expedition returned to Monterey, Father Francisco Garcés entered the San Joaquin Valley and made the first scientific observations of the valley, which included native villages, wide rivers, large tule swamps, and huge herds of tule elk.

In 1821, Mexico gained independence from Spain and in 1848 the United States formally obtained California in the Treaty of Guadalupe Hidalgo (Cleland, 1941: xiii). The period from 1821-1848 is referred to as the Mexican Rancho Period. It was during this period that large tracts of land termed *ranchos* were granted by the various Mexican Governors of *Alta* California, usually to individuals who had worked in the service of the Mexican government.

In 1833, eleven years after gaining independence from Spain, the Mexican government's Secularization Act changed missions into civil parishes, and those natives who had inhabited regions adjacent to a Spanish Period mission were to obtain half of all mission possessions, including land. However, in most instances, this did not occur, and the Secularization Act resulted in the transfer of large mission tracts to politically prominent individuals.

The closest *ranchito* to the LEC project area is the *Rancho de los Franceses* situated on and around present day Stockton. *Rancho de los Franceses* was granted by Governor Micheltorena to William Gulnac, a native of New York on June 13, 1844. The *ranchito* was comprised of eleven square leagues, or 48,747.03 acres. In 1845, shortly before the homestead deadline and after constructing several houses, corrals, planting a peach orchard, and raising several hundred cattle on the land, Gulnac sold the *ranchito* to Captain Charles M. Weber for a \$60 grocery bill Gulnac owed the Weber Grocery Store in San Jose (Smith, 2004: 153-154).

Following the end of hostilities between Mexico and the United States in January of 1847, the United States officially obtained California from Mexico through the Treaty of Guadalupe Hidalgo on February 2, 1848 (Cleland, 1941: xiii). Thus, the American Period begins in 1848. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849.

In April of 1848, gold was first discovered in the San Joaquin Valley at Captain Sutter's now famous saw mill near present day Sacramento. Gold was never found in great quantities in the San Joaquin Valley, although mining in the adjacent foothills was prolific. The southern mines stretched from the Mokelumne River to the Kern River and Stockton became the main supply city for miners headed to these southern mines (Smith, 2004: 179).

The cattle industry in California reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large, pastoral estates in California, and a high demand for beef during the Gold Rush led to a cattle boom that lasted from 1849 to 1855. In 1855, however, the demand for California beef began to decline as a result of sheep imports from New Mexico, cattle imports from the Mississippi and Missouri valleys, and the development of stock breeding farms. When the beef market collapsed, the California ranchers were unprepared. Many had borrowed heavily during the boom, mortgaging their land at interest rates as high as ten percent per month. The collapse of the cattle market meant that many of these ranchos were lost through foreclosure, while others were sold to pay debts and taxes (Cleland, 1941: 108-114).

During the American period, in addition to cattle and sheep ranches, a growing number of farms appeared. A rural community cultural pattern existed in the study area from approximately 1870 to 1930. This pattern consisted of communities made up of population aggregates that lived within well-defined geographic boundaries, shared common bonds, and cooperated to solve shared problems. They lived on farmsteads, tied together by a common school district, church, post office, and country store. These farmsteads and dispersed farming communities gave way to horse ranches, dairies, and nurseries, which in turn were replaced by the establishment of the roadside service complex. The roadside service industry thrived in the highly mobile, mechanized pre- and post-war society, which was linked by state and federal roadways.

Although no land grants were given to the Central Pacific in the San Joaquin Valley, the company financed itself and construction of the first railroad in San Joaquin Valley began in 1870 at a new railroad town named Lathrop. By the close of 1870, this line reached the Stanislaus River. The Central Pacific connected to the main Southern Pacific line at Goshen, approximately 150 miles south of Lathrop. Subsequently, other rail lines were constructed in the San Joaquin Valley and served as feeders to this main line. In 1903, the Western Pacific Railway incorporated and between 1905 and 1909, the company constructed a railroad that ran from Oakland through the San Joaquin Valley and into the Sierra Nevada Mountains (Smith 2004).

#### 5.3.1.4.1 City of Lodi

In 1859, a small group of families established a school on a site near Cherokee Lane and Turner Road, in the present day City of Lodi. By 1869, settlers Ezekiel Lawrence, Reuben Wardrobe, A.C. Ayers, and John Magley offered the Central Pacific Railroad 12 acres of a 160 acre town site to build a rail station. The railroad accepted and when surveyors began laying out streets, settlers came from Woodbridge, Liberty City, and Galt to create present day Lodi (Hillman, 1985).

Lodi was initially called Mokelumne and Mokelumne Station for the nearby river. It is not clear where the name Lodi originated and several stories are told to account for the name. These stories include a local record setting horse named Lodi who reached fame in 1869, the first site where Napoleon won military victory in Lodi, Italy, and several families from Lodi, Illinois, who settled in present day Lodi, California (Hillman, 1985). The city was officially incorporated in 1906, additional public buildings were built from 1906 to 1915, including a public library and a hospital, and the city purchased Bay City Gas and Water Works in 1919 (Hillman 1985). Early industries in the Lodi area included saw mills, flour mills, vineyards, orchards, and cattle ranching.

The City of Lodi now claims approximately 70,000 individuals and is considered a part of metropolitan Stockton. Lodi is likely best known for its wine production and is referred to as the Zinfandel Capital of the World. The Grape Festival is held every September in Lodi and a Spring Wine Show occurs near Easter. The Robert Mondavi Winery is located in the Lodi area. Other industries in the Lodi area include the Lodi Iron Works, General Mills, the Holz Rubber Company, and Kubota Tractors.

### 5.3.1.5 Resources Inventory

All project components of the LEC were subject to cultural resources inventory. This inventory includes archival research, reconnaissance, and surface pedestrian survey. The area of potential effect (APE) for the project was determined in accordance with the latest CEC *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC 2007) for assessing potential impacts to archaeological and architectural resources. The results of the resource inventory are presented in the following sections. Figure 5.3-1 shows the LEC site, the construction laydown areas and/or parking areas, and the proposed natural gas line.

#### 5.3.1.5.1 Archival Research

CH2M HILL commissioned a literature search of the project area from staff of the California Historical Resources Information System (CHRIS) Central California Information Center using a definition of a one-mile buffer zone around the Project site, associated laydown and/or parking areas, and a one-quarter mile buffer zone around the proposed natural gas line corridor. The CHRIS literature and records review included a review of all recorded archaeological sites as well as all known cultural resource survey and excavation reports. The National Register of Historic Places (NHRP), the California Register, California Historical Landmarks, and California Points of Historical Interest, as well as historic maps, including a GLO plat map for T3N, R5E (1853-1867) and T3N, R6E (1853-1865), the Thompson and West (1879) Map Number One, the 1939 *Lodi 15'* United States Army Corps of Engineers map, the 1952 *Terminus 7.5'* USGS topographic map, and the 1953 *Lodi South 7.5'* USGS topographic map were all examined.

According to information available in the CHRIS files, only five previous cultural resource studies have been prepared within 1 mile of the project area (Table 5.3-1). Copies of all reports are provided in Appendix 5.3.C.

TABLE 5.3-1  
Cultural Resources Reports within 1 Mile of the LEC

Report Authors and Date	CHRIS Catalogue NADB Numbers
Owens (1991)	SJ-0816
Wohlgemuth (1990)	SJ-0850
PMC (2006)	SJ-6687
Goetter (2008)	SJ-6701
Goetter (2008)	SJ-6717

Source: CHRIS Central California Information Center. See Appendix 5.3C for full bibliographic references.

No cultural resources are previously recorded within the project area or within a 1 mile radius of the LEC. There are no historic districts, cultural landscapes, National Register of Historic Places-listed or eligible properties within 1 mile of the project area, according to the results of the records and literature search. No buildings or structures were noted on any of the historic maps within LEC project area or within the proposed gas line; however the Western Pacific Railroad is visible on the 1953 *Lodi South 7.5'* USGS topographic map at the very eastern end of the project area.

#### ***P-39-000098 Western Pacific Railroad***

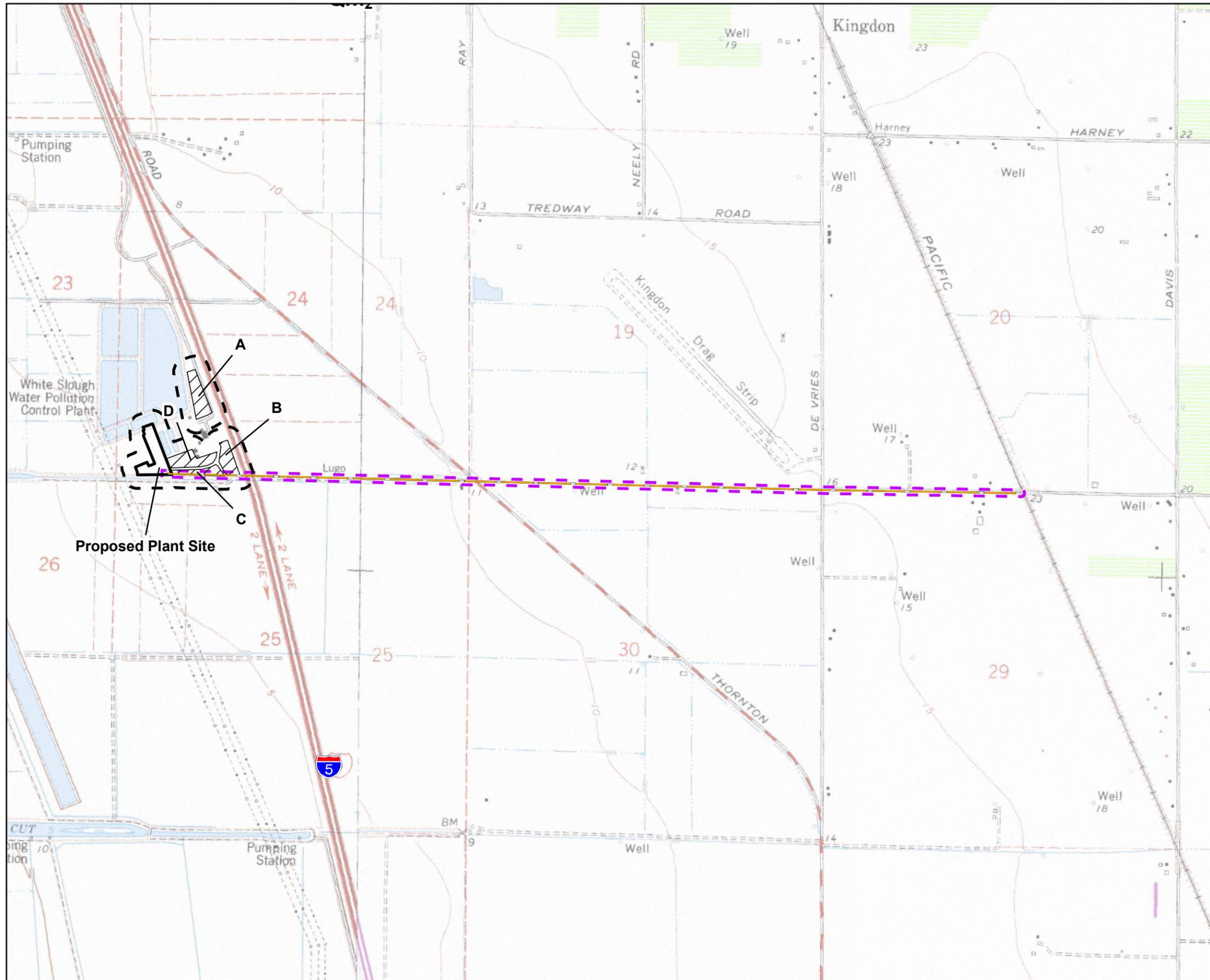
The section of rail line visible on the 1953 *Lodi South* quad is a segment of the Old Western Pacific Railway Company main line. This line was originally built as a feeder line for the main Southern Pacific and Central Pacific lines, which were the first railroads to run through the San Joaquin Valley. The Western Pacific Railroad (WPRR) is now a part of the Union Pacific Railroad (UPRR). Two separate sections of this railroad are recorded elsewhere in San Joaquin County as site P-39-00098, CA-SJO-000292-H. These previously recorded and discontinuous segments are not considered eligible to the NRHP as the segments lack integrity due to modern improvements made to the tracks, the rail ties, and the rail beds (Larson and Johnson 2003, Jensen, 2004).

The historic UPRR constructed in the late 1880's represented the westernmost portion of the Transcontinental Railroad between Sacramento and San Jose. The various rail lines of the UPRR are recorded elsewhere in San Joaquin County with the following site numbers: Southern Pacific, P-39-000002, CA-SJO-000250H; Western Pacific, P-39-000098, CA-SJO-00292H; and Tidewater-Southern, P-39-000015, CA-SJO-00256H. The Western Pacific Railroad Company was founded in 1903 and the WPRR was built between 1905 and 1909. The rail line ran from Oakland, through the San Joaquin Valley and into the Sierra Nevadas to Salt Lake City by Feather River Canyon and Beckwourth Pass. The WPRR ran the California Zephyr passenger train and was the first large western railroad to eliminate steam locomotives and replace them with diesel locomotives (Kneiss 1953).

The WPRR merged with the UPRR in 1983, two months before its 80th anniversary. Shortly after, the UPRR began a series of improvements to the Old WPRR tracks to enable larger locomotives and heavier freight cars running at higher speeds to run on the WPRR. The upgrades included heavier rails, new ties, and improved rail beds to permit higher tonnage on the tracks (Bridges 1983, Larson and Johnson 2003).

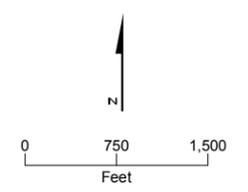
#### **5.3.1.5.2 Archaeological Field Survey**

A cultural resources survey of the proposed LEC site was conducted on June 26, 2008, by Natalie Lawson, M.A., RPA, a CRS who meets the qualifications for Principal Investigator stated in the Secretary of the Interior's standards and guidelines for archaeology and historic preservation (USNPS, 1983). This field survey included the plant site and four temporary laydown and/or parking areas. Additional survey of the proposed gas line was conducted on July 25, 2008. The site is located within the existing WPCF and STIG plant, southwest of the intersection of Highway 12 and Interstate 5, at the end of North Cord Road on Thornton Road within an extension of the City of Lodi, California. The proposed gas line extends 2.5 miles east of the southern end of the LEC site, crossing the UPRR/WPRR Railroad, and connecting to Pacific Gas and Electric Line #108 just east of the railroad.



- LEGEND**
-  Natural Gas Line Route
  -  Proposed Lay Down and/or Parking
  -  Proposed Plant Site
  -  50ft Buffer
  -  200ft Buffer

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.



**FIGURE 5.3-1**  
**AREAS SURVEYED FOR**  
**CULTURAL RESOURCES**  
 LODI ENERGY CENTER  
 LODI, CALIFORNIA

As per the latest CEC *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007), in addition to the plant site and the construction laydown and/or parking area, a 200-foot minimum buffer was also surveyed for cultural resources around these facilities. In addition to the survey of the proposed gas line, a 50-foot minimum buffer was surveyed around the proposed gas line.

The survey used linear pedestrian transects spaced at 10 meters and opportunistic examination of exposed soils to examine the survey areas to determine whether archaeological deposits might be present. Exposed soils, consisting mainly of previously disturbed agricultural sediments and road bed material, were inspected carefully, and no evidence of cultural materials was noted.

Much of the visibility within the laydown and/or parking areas is impaired by thick vegetation. Some areas have poor visibility, less than 10 percent, therefore any areas with good visibility were surveyed even when they were outside of transects. The laydown area adjacent to the plant site has been graded and extensive earthmoving activities have resulted in the creation of a very large mound of dirt. Concrete pipe pieces have been dumped atop the mound. The eastern laydown area has been graded for parking and gravel has been put down. Additionally, several water lines daylight throughout the easternmost laydown area; eucalyptus trees are present in this area as well. All observed standpipes, waterlines, and spigots appear to be modern. The northernmost laydown area was not particularly disturbed and visibility was fair at approximately 50 percent.

Visibility on the eastern end of the proposed gas line along West Armstrong Road was fair at approximately 50 percent. Visibility ranged from excellent along the dirt road south of the Lodi-Kingdon airstrip to poor within fallow agricultural fields between the I-5 and the start of the paved road. The areas along the paved West Armstrong road are disturbed by two V ditches running adjacent to the road, grading for residences, a parking area for a small dairy, and grapevines. The areas along the dirt road are disturbed by both agricultural activities and grading for the dirt road. Underground water lines exist in the area; several were visible extending into V ditches adjacent to the dirt road. Several sections of ceramic water line have been pulled and dumped along the fields. All observed soils in the surveyed area range from medium to dark brown silty loam with some gravel and fist sized cobbles.

The existing WPCF and STIG plant properties, previously used for agriculture, have been subjected to heavy disturbance since the construction of the WPCF in 1966 and the construction of the STIG plant in 1993 (Joe Bittner, 2008, personal communication). Both excavation and grading occurred during the WPCF's initial construction in 1966. Excavations to a depth of six feet reportedly occurred during the construction of the STIG plant in the 1980's (Joe Bittner, 2008, personal communication). An underground Pacific Gas and Electric (PG&E) line runs to the STIG plant, through the LEC project area and two of the laydown and/or parking areas, through the WPCF, and continues east. Areas surrounding the WPCF and STIG plant have been excavated to create reservoirs for the WPCF to the north and the San Joaquin County Mosquito and Vector Control mosquito abatement ponds to the south. Extensive earthmoving activities were observed within the proposed project area during the survey as well. Additional disturbances include the current use of the proposed plant site as a temporary laydown area, modern trash related to the WPCF, and the dumping of modern concrete pipe fragments. Previously disturbed sediment would not have cultural material in context. Most cultural material would be destroyed by the

mechanical equipment used in excavation, mixing, and spreading within the plow zone and then, further disturbed by the construction of the WPCF and the STIG plant. However, intact cultural deposits could be present below the plow zone adjacent to the buildings. The proposed natural gas line has been disturbed by the placement of a previous underground high pressure gas line along the same linear area and previously disturbed sediment would not contain cultural material in context.

Cultural sensitivity is considered low to moderate within the LEC area as the Union Pacific Railroad, historically the Western Pacific Railroad, runs through the eastern end of the proposed natural gas line corridor. Two other short discrete segments of this railroad are previously recorded north of the project and buffer areas as P-39-00098, CA-SJO-000292-H. The section of the Western Pacific Railroad located within the proposed natural gas line corridor runs along the footprint of the original grade; however, modern upgrades to the rail line, including modern rail crossings, upgraded rail lines and ties are extant. Additionally, the rail grade itself has been modified to allow for heavier loads to be run upon the tracks. This 100 foot segment was recorded during the archaeological survey; the recorded section is limited to the section of the railroad which bisects West Armstrong and extends approximately 50 feet north and 50 feet south of the crossing.

Given the local topography, distance to major stream drainages or other archaeologically sensitive features, and the scale and scope of previous ground disturbance in the area, archaeological sensitivity of the surface soils of the LEC site and appurtenant proposed facilities is considered low. The sensitivity of the underlying soils is considered moderate to low, given that the possibility exists for intact cultural deposits to be present beneath the plow zone. The archaeological sensitivity is low to moderate because the site is located relatively near a slough, White Slough, situated less than 0.25 mile from the LEC facilities, because of the low density of previous finds in this general area, despite previous surveys, and because of the presence of the historic WPRR on the eastern end of the project area.

#### 5.3.1.5.3 Architectural Survey

In addition to a reconnaissance conducted by Ms. Lawson, historical USGS topographic maps were reviewed to determine whether potentially historic buildings and structures (more than 45 years old) were located within 0.5 mile of the LEC project site. No architectural survey was conducted for the proposed gas line, as this line will be placed below ground; thus, no negative visual impacts are expected. Small rectangles on these maps indicate the locations of homes, barns, and other structures that stood when the map was prepared. Examination of the maps, including a GLO plat map for T3N, R5E (1853-1867) and T3N, R6E (1853-1865), the Thompson and West (1879) Map Number One, the 1939 *Lodi 15'* United States Army Corps of Engineers map, the 1952 *Terminous 7.5'* USGS topographic map, and the 1953 *Lodi South 7.5'* USGS topographic map showed that no historic buildings were located within 0.5 mile of the project site.

The 1952 *Terminous 7.5'* USGS map shows two structures, labeled 'pump house' situated adjacent and directly south of the project area. Both of these structures are now gone and only one large concrete standpipe which was likely related to the pump houses remains. This standpipe was photographed during the survey.

#### 5.3.1.5.4 Native American Consultation

CH2M HILL contacted the Native American Heritage Commission (NAHC) by letter on June 30, 2008, to request information about traditional cultural properties such as cemeteries and sacred places in the project area. The NAHC responded on July 10, 2008 with a list of Native Americans interested in consulting on development projects. Each of these individuals/groups was contacted by letter on July 11, 2008. When possible, letters were emailed and faxed on July 14, 2008, as well. As of the time of printing this document no responses have been received. Copies of the letters are provided in Appendix 5.3A. Also, a detailed summary table of the results of consultations with the individual Native American organizations on the NAHC contact list is included in Appendix 5.3A.

The NAHC record search of the Sacred Lands file did not indicate the presence of Native American cultural resources in the immediate project area. The record search conducted at the CHRIS Northwest Information Center also did not indicate the presence of Native American traditional cultural properties.

#### 5.3.1.5.5 Local Historical Societies

Additionally, CH2M HILL contacted historical societies in the Lodi area, including the Lodi Historical Society and the San Joaquin Historical Society and Museum on June 30, 2008. As of this printing no responses have been received regarding historic structures from either society. CH2M HILL also contacted the Planning Department of San Joaquin County on August 21, 2008. San Joaquin County does not maintain a list of historic properties within the county and was unable to provide additional information regarding historic properties near the project area. A summary of these contacts is provided as part of Appendix 5.3A.

### 5.3.2 Environmental Analysis

This section describes the environmental impacts of LEC construction and operation. CH2M HILL conducted a complete survey of the project area.

#### 5.3.2.1 Significance Criteria

Appendix G, Environmental Checklist Form of the CEQA guidelines, 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 have the following affects:

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

Project investigations included archival research; review of all cultural resource investigation reports within the LEC; contacts with all other interested agencies, Native American groups, and historic societies; and a complete field survey. These studies indicated no significant prehistoric or historic archaeological remains, or traditional cultural properties in the LEC APE. Therefore, no impacts to cultural resources are expected.

#### 5.3.2.2 Construction Impacts

The literature search and pedestrian inventory have shown no significant prehistoric or historic sites located within the LEC site area of potential effect. Although a 100 foot

segment of the UPRR, historically the WPRR, which crosses the proposed natural gas line corridor, was recorded as an historic resource, this short segment is not eligible to the NRHP and not considered a significant resource. The integrity of the section of the UPRR/WPRR located in the project area was compromised by a series of improvements to enable larger locomotives and heavier freight cars running at higher speeds to run on the WPRR. The improvements, begun in 1983, included heavier rails, new ties, and improving the rail beds to permit higher tonnage (Bridges, 1983; Larson and Johnson, 2003). This short segment no longer retains the essential physical features that made up its character or appearance during its period of importance from 1905 to 1909, and although the rail line is located in its original footprint, the original historic materials and workmanship are no longer present or able to convey important associations with local historic events (National Park Service, 1991). Additionally, the two previously recorded discontinuous sections of the UPRR/WPRR that are located north of the project and buffer areas are also considered not eligible; however, these eligibility determinations are for the discontinuous segments of the WPRR only. Finally, as this railroad is now a part of the UPRR and currently in use, it will not be affected by the proposed project as placement of the new underground gas line will be accomplished by boring under the rail grade. Therefore, the project is unlikely to have an adverse effect on significant historical or archaeological sites (that are eligible for listing in the NRHP or CRHR). Lastly, there are no known cemeteries in the project area or linear facilities that project construction might disturb.

It is unlikely, due to the extensive disturbance by construction of the STIG plant or the WPCF, that the project would encounter buried intact cultural resources that have not previously been disturbed or destroyed in sediments near the ground surface. Additionally, the natural gas line is proposed within the same corridor as an existing gas line; therefore, the gas line corridor is disturbed, as well. However, some limited potential does exist for intact cultural resources to be discovered in soils below the plow zone. With the incorporation of mitigation described in Section 5.3.4, construction impacts to cultural resources will be less than significant.

### 5.3.2.3 Operation Impacts

No ground disturbance would be required during project operation; therefore, impacts to cultural resources are not anticipated during LEC operation. Maintenance of project facilities will not cause any effects outside of the initial construction area of impact. No significant impacts to cultural resources will result from operations.

### 5.3.3 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (Pub. Resources Code Section 21083; California Code of Regulations., Title 14, Sections 15064(h), 15065(c), 15130, and 15355).

In July 2008, 21 projects were in various stages of progress with the City of Lodi. Most of these projects are zoned residential, with a few office, mixed use, institutional, commercial, and industrial projects proposed. All of these projects are more than 4 miles from the

proposed project, except for the improvements at the White Slough WPCF (Draft EIR issued March 28, 2008), which is adjacent to the project site (Bereket, 2008; City of Lodi, 2008).

In July 2008, 72 projects<sup>3</sup> were in progress with the San Joaquin County Building Department. These projects were located in Acampo, Escalon, Farmington, French Camp, Linden, Lodi, Lockeford, Manteca, Ripon, Stockton, and Tracy. The types of projects included residential projects such as new residences, additions and remodels to existing residences, mobile home renovations, and pool construction; commercial projects such as administration buildings, barns, and a riding arena; light industrial projects such as storage buildings, spray booths, and warehouses; office projects such as building conversions and tenant improvements; and institutional projects such as classroom relocation and facilities to house animals (Raborn, 2008).

Although environmental analyses for most of these projects have not been completed at the time this Application for Certification (AFC) was prepared, standard mitigation measures exist to reduce impacts to cultural resources to a less-than-significant level, and it is anticipated that impacts to cultural resources from the cumulative projects, if any, would be mitigated to a less-than-significant level. The project is unlikely, therefore, to have impacts that would combine cumulatively with other closely related past, present, and reasonably foreseeable future projects. With the incorporation of mitigation described in Section 5.3.4, the project will not contribute to a cumulatively considerable impact to cultural resources.

### 5.3.4 Mitigation Measures

Although significant archaeological and historical sites were not found during the survey for the LEC and associated linear features, it is possible that subsurface construction could encounter buried archaeological remains. For this reason, the LEC will include measures to mitigate any potential adverse impacts that could occur if there were an inadvertent discovery of buried cultural resources. These measures include: (1) designation of an on-call CRS to investigate any cultural resources finds made during construction, (2) implementation of a construction worker training program, (3) monitoring during initial clearing of the power plant site and excavation at the plant site, (4) procedures for halting construction in the event that there is an inadvertent discovery of archaeological deposits or human remains, (5) procedures for evaluating an inadvertent archaeological discovery, and (6) procedures to mitigate adverse impacts on any inadvertent archaeological discovery determined significant.

#### 5.3.4.1 Designated Cultural Resources Specialist

The Applicant will retain a designated cultural resources specialist (CRS) who will be available during the earth-disturbing portion of the LEC construction periods to inspect and evaluate any finds of buried archaeological resources that might occur during the construction phase. If there is a discovery of archaeological remains during construction, the CRS, in conjunction with the construction superintendent and environmental compliance manager, will make certain that construction activity stops in the immediate vicinity of the find until the find can be evaluated. The CRS will inspect the find and evaluate its potential significance in consultation with CEC staff and the CEC compliance project manager (CPM).

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<sup>3</sup> For the purposes of this discussion, San Joaquin County sorted its projects by project cost, and provided a list of the projects costing \$25,000 or more.

The CRS will make a recommendation as to the significance of the find and any measures that would mitigate adverse impacts of construction on a significant find.

The CRS will meet the minimum qualifications for Principal Investigator on federal projects under the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The CRS will be qualified, in addition to site detection, to evaluate the significance of the deposits, consult with regulatory agencies, and plan site evaluation and mitigation activities.

#### **5.3.4.2 Construction Worker Training**

The Applicant will prepare a construction worker sensitivity training program to ensure implementation of procedures to follow in the event that cultural resources are discovered during construction. This training will be provided to each construction worker as part of their environmental, health, and safety training. The training will include photographs 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, including human remains. It will explain the importance of, and legal basis for, the protection of significant archaeological resources. The training will also be presented in the form of a written brochure.

#### **5.3.4.3 Monitoring**

The Applicant will retain a qualified archaeologist to monitor excavations during the project's construction phase, including geotechnical testing activities prior to construction that have the potential to impact previously undisturbed soils that may be sensitive for cultural resources. If archaeological material is observed by the monitoring archaeologist, ground-disturbing activity will be halted in the vicinity of the find so that its significance (CRHR eligibility) can be determined. If evaluated as significant, mitigation measures (avoidance or data recovery) will be developed in consultation with the CEC.

#### **5.3.4.4 Emergency Discovery**

If the archaeological monitor, construction staff, or others identify archaeological resources during construction, they will immediately notify the CRS and the site superintendent, who will halt construction in the immediate vicinity of the find, if necessary. The archaeological monitor or CRS will use flagging tape, rope, or some other means as necessary to delineate the area of the find within which construction will halt. This area will include the excavation trench from which the archaeological finds came and any piles of dirt or rock spoil from that area. Construction will not occur within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can evaluate the find.

#### **5.3.4.5 Site Recording and Evaluation**

The CRS will follow accepted professional standards in recording any find and will submit the standard Department of Parks and Recreation historic site form (Form DPR 523) and location information to the CHRIS Central California Information Center.

If the CRS determines that the find is not significant and the CEC CPM concurs, construction will proceed without further delay. If the CRS determines that further

information is needed to determine whether the find is significant, the designated CRS will, in consultation with the CEC, prepare a plan and a timetable for evaluating the find.

#### 5.3.4.6 Mitigation Planning

If the CRS, CEC staff, and CPM determine that the find is significant, the CRS will prepare and conduct a mitigation plan in accordance with state 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 CRS will verify the completion of field data collection by letter to the project owner and the CPM so that they can authorize construction to resume.

#### 5.3.4.7 Curation

The CRS will arrange for curation of archaeological materials collected during an archaeological data recovery mitigation program. Curation will be performed at a qualified curation facility meeting the standards of the California Office of Historic Preservation. The CRS will submit field notes, stratigraphic drawings, and other materials developed as part of the data recovery/mitigation program to the curation facility along with the archaeological collection, in accordance with the mitigation plan.

#### 5.3.4.8 Report of Findings

If a data recovery program is planned and implemented during construction as a mitigation measure, the CRS will prepare a detailed scientific report summarizing results of the excavations to recover data from an archaeological site. This report will describe the site soils and stratigraphy, describe and analyze artifacts and other materials recovered, and draw scientific conclusions regarding the results of the excavations. This report will be submitted to the curation facility with the collection.

#### 5.3.4.9 Inadvertent Discovery of Human Burials

If human remains are found during construction, project officials are required by the California Health and Safety Code (Section 7050.5) to contact the San Joaquin County Coroner. If the Coroner determines that the find is Native American, he or she must contact the NAHC. The NAHC, as required by the Public Resources Code (Section 5097.98) determines and notifies the Most Likely Descendant with a request to inspect the burial and make recommendations for treatment or disposal.

### 5.3.5 Laws, Ordinances, Regulations and Standards

Among the local LORS discussed in this section are certain ordinances, plans, or policies of the City of Lodi, San Joaquin County, and the State of California. Federal LORS are not applicable because the project is not a federal undertaking (federal ownership, funding, or permit). A summary of applicable LORS is provided in Table 5.3-2.

TABLE 5.3-2  
Laws, Ordinances, Regulations, and Standards for Cultural Resources

Law, Ordinance, Regulation, or Standard	Requirements/Applicability	Administering Agency	AFC Section Explaining Conformance
<b>State</b>			
California Environment Quality Act Guidelines	Project construction may encounter archaeological and/or historical resources	CEC	Section 5.3.5.1
Health and Safety Code Section 7050.5	Construction may encounter Native American graves; coroner calls the NAHC	State of California	Section 5.3.5.1
Public Resources Code Section 5097.98	Construction may encounter Native American graves; NAHC assigns Most Likely Descendant	State of California	Section 5.3.5.1
Public Resources Code Section 5097.5/5097.9	Would apply only if some project land were acquired by the state (currently no state land)	State of California	Section 5.3.5.1
<b>Local</b>			
San Joaquin County General Plan (1992)	Significant archaeological or historic resources will be identified and protected from destruction. If resources appear after development begins, an assessment shall be made to preserve or to remove.	San Joaquin County	Section 5.3.5.2
City of Lodi General Plan (1991)	Requires consultation with California Archaeological Inventory, Central California Information Center at Stanislaus State University on any project that could have an impact on cultural resources and implement the center's recommended mitigation measures	City of Lodi	Section 5.3.5.2

### 5.3.5.1 State LORS

CEQA requires review to determine if a project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group eligible for inclusion in the CRHR (CEQA Guidelines). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1 of the Public Resources Code) 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<sup>4</sup> is presumed to be historically or culturally significant.<sup>5</sup>

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, is not included in a local register of historic resources, nor deemed significant in a historical resource survey, may nonetheless be historically significant (Section 21084.1; see Section 21098.1).

CEQA requires a Lead Agency to identify and examine environmental effects that may result in significant adverse effects. Where a project may adversely affect a unique archaeological resource,<sup>6</sup> Section 21083.2 requires the Lead Agency to treat that effect as a significant environmental effect and prepare an Environmental Impact Report. When an archaeological resource is listed in or is 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 project may have a potential adverse effect on archaeological resources.

Other state-level requirements for cultural resources management appear in the California Public Resources Code 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 Public Resources Code, and falls within the jurisdiction of the NAHC.

If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the

<sup>4</sup> The CRHR is a listing of "...those properties which are to be protected from substantial adverse change." Any resource eligible for listing in the California Register is also to be considered under CEQA.

<sup>5</sup> A historical resource may be listed in the CRHR if it meets one or more of the following criteria: "(1) is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) is associated with the lives of persons important to local, California or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or (4) has yielded or has the potential to yield information important in prehistory or history (...of the local area, California or the nation)" (Public Resources Code §5024.1, Title 14 CCR, Section 4852). Automatic CRHR listings include National Register of Historic Places (NRHP)-listed and determined eligible historic properties (either by the Keeper of the NRHP or through a consensus determination on a project review), State Historical Landmarks from number 770 onward, and Points of Historical Interest nominated from January 1998 onward. Landmarks prior to 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

<sup>6</sup> Public Resources Code 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.

coroner determines the remains 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. The project will comply with these requirements related to cultural resources through the implementation of the mitigation measures described previously in Section 5.3.4.

### 5.3.5.2 Local LORS

With regard to objectives relating to the preservation of cultural resources, The *San Joaquin County 2010 General Plan*, approved in 1992, aims to “protect San Joaquin County’s valuable architectural, historical, archaeological, and cultural resources” (San Joaquin County 1992). Specific policies found in Volume 1 VI-37 include the following elements: 1) the County will “encourage efforts” to preserve its historical and cultural heritage; 2) Significant archaeological and historical resources shall be identified and protected from destruction; 3) No significant architectural, historical, archaeological, or cultural resources shall knowingly be destroyed by the County; 4) Reuse of historical buildings will be encouraged; and 5) The County will support historic preservation.

The *San Joaquin County 2010 General Plan* contains implementation programs that address archaeological deposits. The most pertinent of these require that the County Title Development include archaeological and historical preservation regulations that will specify procedures to be followed when significant resources are discovered during the planning process and the County will inventory heritage resources in unincorporated areas and encourage similar inventory in the cities.

The City of Lodi General Plan (1991) includes Section 10, Urban Designs and Cultural Resources Element. Goal J under this section states the City will “preserve and enhance the city’s historical heritage.” Policies affecting cultural resources under this section state the City will “develop a historic preservation ordinance”, “coordinate with the State Office of Historical Preservation in developing this ordinance”, and “work with property owners in seeking registration of historical structures as State Historic Landmarks or listing on the National Register of Historic Places.” Additionally, the City will “consult with the California Archaeological Inventory, Central California Information Center at Stanislaus State University, on any project that could have an impact on cultural resources and implement the center’s recommended mitigation measures.” The LEC project will comply with these requirements related to cultural resources through the implementation of the mitigation measures previously described in Section 5.3.4.

### 5.3.6 Agencies and Agency Contacts

Table 5.3-3 lists the state agencies involved in cultural resources management for the project and a contact person at each agency. These agencies include the NAHC and, for federal undertakings, the California Office of Historic Preservation.

TABLE 5.3-3  
Agency Contacts for Cultural Resources

Issue	Agency	Contact
Native American traditional cultural properties	Native American Heritage Commission	Debbie Pilas-Treadway Associate Governmental Program Analyst Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814 (916) 653-4082
Federal agency NHPA Section 106 compliance	California Department of Parks and Recreation Office of Historic Preservation	Milford Wayne Donaldson State Historic Preservation Officer 1416 9th Street, Room 1442, Sacramento, CA 95814 (916) 653-6624

### 5.3.7 Permits and Permit Schedule

Other than certification by the CEC, no state, federal, or local permits are required by the project for the management of cultural resources. Consultation with the State Historic Preservation Officer and Advisory Council on Historic Preservation would be required under Section 106 of the National Historic Preservation Act if, for example, as the result of a later project change, the project were to become a federal undertaking and significant cultural resources could be affected by the project.

### 5.3.8 References Cited or Consulted

Bereket, Immanuel/City of Lodi Community Development Department, Junior Planner. 2008. Personal communication with Wendy Haydon/CH2M HILL. July 8.

Bridges, R.W. 1983. Eighty Candles on the Final Cake. Mileposts. March 1983.

City of Lodi. 1991. *City of Lodi General Plan*. Ms. on file at CH2M HILL, Santa Ana, CA. June.

City of Lodi. 2008. Lodi Environmental Impact Reports – Current Projects and Recent Projects. [http://www.lodi.gov/com\\_dev/EIRs.html](http://www.lodi.gov/com_dev/EIRs.html). Accessed on July 16, 2008.

California Energy Commission (CEC). 2007. *Rules of Practice and Procedure & Power Plant Site Certification*. Sacramento: California Energy Commission.

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

Cleland, Robert Glass. 1941. *The Cattle on a Thousand Hills: Southern California, 1850-1870*. The Huntington Library, University of California.

Elsasser, Albert B. 1978. Development of Regional Prehistoric Cultures. In *California*, edited by Robert F. Heizer, pp. 37-57. Handbook of North American Indians, Volume 8; William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Fredrickson, David A. 1974. Cultural Diversity in Early Central California: A View from the North Coast Ranges. *Journal of California Anthropology*. 1(1):41-53.

Goetter, Karin. 2008. Archaeological Survey Report for the Interstate 5 North Stockton Corridor Interchanges Improvements Project, Stockton, San Joaquin County, California. Submitted to Caltrans District 6. Unpublished Report on file at CCIC, CSUS, Department of Anthropology, Turlock, CA 95382.

Goetter, Karin. 2008. Historic Property Survey Report for the Interstate 5 North Stockton Corridor Interchanges Improvements Project, Stockton, San Joaquin County, California. Submitted to Caltrans District 6. Unpublished Report on file at CCIC, CSUS, Department of Anthropology, Turlock, CA 95382.

Hillman, Raymond W. and Leonard Covello. 1985. *Cities and Towns of San Joaquin County since 1847*. Fresno: Panorama West Books

Jenson, Sean Michael. 2004. Site Record for Site P-39-000098, CA-SJO-00292H. Ms. on file, Central California Information Center, California State University, Stanislaus.

Kneiss, Gilbert H. 1953. Fifty Candles on the Western Pacific Cake. Mileposts. March 1953.

Kroeber, A.L. 1925. *Handbook of the Indians of California*. Washington, D.C.: Smithsonian Institution, Bureau of American Ethnology Bulletin 78

Larson, B. and E. Johnson. 2003. Site Record for Site P-39-000098, CA-SJO-00292H. Ms. on file, Central California Information Center, California State University, Stanislaus.

Moratto, M.J. 1984. *California Archaeology*. New York: Academic Press.

National Park Service. 1983. Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Washington, DC.

National Park Service. 1991. *How to Complete the National Register Registration Form*. National Register Bulletin 16A. USDI National Park Service, Washington, DC.

Pacific Municipal Consultants. 2006. Archaeological and Historical Investigations for the White Slough Water Pollution Control Facility Improvement Project. Submitted to the City of Lodi. Unpublished Report on file at CCIC, CSUS, Department of Anthropology, Turlock, CA 95382.

Raborn, Carla/San Joaquin County. 2008. Personal communication with Wendy Haydon/CH2M HILL regarding an 18-month list of development projects located within the County on July 16 and 29, and August 1 and 11.

San Joaquin County. 1992. San Joaquin County 2010 General Plan. Ms. on file CH2M HILL, Santa Ana. July.

Smith, Wallace. 2004. *Garden of the Sun: A History of the San Joaquin Valley, 1772-1939*. Fresno: Max Hardison

Strand, Rudolph G. and James B. Koenig. 1965. Geologic Map of California, Sacramento Sheet. California Division of Mines and Geology, Scale 1:250,000.

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

Wohlgemuth, E. 1990. A Cultural Resource Inventory of Four Alternative Power Plant Locations for the Northern California Power Agency Stand Alone Combined Cycle Project. Submitted to Far Western Anthropological Research Group, Inc. Unpublished Report on file at CCIC, CSUS, Department of Anthropology, Turlock, CA 95382.