

APPENDIX 5.3B

# Cultural Resources Assessment

---

# Chula Vista Energy Upgrade Project (CVEUP); Cultural Resources Assessment

PREPARED FOR: MMC Energy, Inc.  
PREPARED BY: Clint Helton/CH2M HILL  
DATE: July 17, 2007

## INTRODUCTION

As requested by MMC Energy, Inc., CH2M HILL conducted environmental review to specifically address potential impacts to cultural, for the Chula Vista Energy Upgrade Project (CVEUP). This study is considered supplementary to a study conducted on October 10, 2006 by LSA Associate, Inc. (Fulton 2006) that failed to locate any cultural resources within the existing Chula Vista Power Plant property. A supplemental cultural resources survey of the existing Chula Vista Power Plant, in addition to two temporary construction laydown areas, was conducted by Clint Helton, Cultural Resources Specialist of CH2M HILL on July 10, 2007. A summary of findings for cultural resources are presented below. The archaeological sensitivity of the CVEUP site and laydown sites are considered low.

## CULTURAL RESOURCES SURVEY RESULTS

On July 10, 2007 Clint Helton, M.A., RPA performed a cultural resources pedestrian inventory of the proposed CVEUP Project plant site and two temporary construction laydown areas. For completeness, survey was conducted over all parts of the plant site and laydown areas that were accessible (not covered by structures) using 10-meter parallel transects.

The proposed CVEUP is located within the boundaries of the existing four-acre site known as the MMC Chula Vista Power Plant, within the City of Chula Vista, California. The site is located on a Pleistocene terrace on the north side of the Otay River within the Peninsular Ranges physiographic province of California. The site is relatively flat at an approximate elevation 60 feet above mean sea level.

The existing MMC Chula Vista Power Plant was constructed in 2000 and has no buildings or structures over 45 years old. The parcels to the east and the west possess new business parks, constructed only within the past five years. The parcel to the south includes the Otay Regional Park and is densely vegetated. The parcel to the north contains an auto salvage and storage yard with no buildings or structures over 45 years old. Similarly, the two temporary laydown areas do not possess structures over 45 years old either within or abutting them. Therefore, no separate architectural survey was conducted for the Project.

## **Plant Site**

The existing MMC Chula Vista Power Plant site is located at 3497 Main Street in the City of Chula Vista, San Diego County. The site has been heavily disturbed by the construction and operation of the existing plant and areas that have not been developed have been graded and landscaped with non-native vegetation. Recent geotechnical investigations indicate the entire property is underlain by some 25 feet of artificial fill (Ninyo & Moore 2006).

Mr. Helton surveyed the existing MMC Chula Vista Power Plant property and where visible soils were present, a 200-foot buffer surrounding the site. The entire property is heavily disturbed by construction of the existing seven-year-old plant. Ground visibility was good. No cultural resources were present and archaeological sensitivity is considered very low.

## **Temporary Construction Laydown Sites**

### *Laydown Site #1*

The laydown site located directly southeast of the existing plant was used as a former palette storage yard. The ground surface is graveled, graded, and generally heavily disturbed. Ground visibility was good. No cultural resources were located and sensitivity is considered very low.

### *Laydown Site #2*

The second laydown area is located next to the Coors Stadium, approximately 3 miles to the east. The site is a heavily graveled parking area, currently used for event parking at the adjacent stadium. The ground surface was heavily graveled and graded. Ground visibility was good. No cultural resources were present and sensitivity is considered very low.

## **RECOMMENDATIONS**

No cultural resources were encountered during the survey. Since no objects or sites were located, no site records were prepared. No impact to any cultural resources is expected to occur within the CVEUP site or laydown areas and no further work is recommended.

## **REFERENCES**

*Fulton, Terri 2006. Cultural Resource Assessment: Chula Vista Energy Efficiency Upgrade Project in the City of Chula Vista, San Diego County, California.*

*Ninyo & Moore 2006. Geotechnical Evaluation, Chula Vista Power Plant Modernization, Chula Vista, California.*

# CULTURAL RESOURCES ASSESSMENT

CHULA VISTA ENERGY EFFICIENCY UPGRADE PROJECT

IN THE CITY OF CHULA VISTA

SAN DIEGO COUNTY, CALIFORNIA

LSA

December 2006

# CULTURAL RESOURCES ASSESSMENT

CHULA VISTA ENERGY EFFICIENCY UPGRADE PROJECT

IN THE CITY OF CHULA VISTA

SAN DIEGO COUNTY, CALIFORNIA

Submitted to:

Karl Miller, CEO  
MMC Energy, Inc.  
26 Broadway, Suite 907  
New York, New York 10004

Prepared by:

Terri Fulton  
LSA Associates, Inc.  
20 Executive Park, Suite 200  
Irvine, California 92614-4731  
(949) 553-0666

LSA Project No. MME0601

**National Archaeological Data Base Information:**

*Type of Study:* Records Search, Survey

*Sites Recorded:* None

*USGS Quadrangle:* Imperial Beach, California 7.5'

*Acreage:* 3.82 acres

*Key Words:* Negative Survey

LSA

December 2006

## TABLE OF CONTENTS

ABSTRACT.....	ii
INTRODUCTION .....	1
NATURAL SETTING.....	3
CULTURAL SETTING.....	4
PREHISTORY .....	4
ETHNOGRAPHY .....	6
HISTORY.....	6
METHODS .....	9
RECORDS SEARCH.....	9
FIELD SURVEY.....	9
RESULTS .....	10
RECORDS SEARCH.....	10
FIELD SURVEY .....	10
RECOMMENDATIONS .....	11
REFERENCES .....	12

### FIGURE

Figure 1: Project Location Map .....	2
--------------------------------------	---

### APPENDICES

- A: RECORDS SEARCH LETTER
- B: PROJECT PHOTOGRAPHS

## ABSTRACT

Under contract to MMC North America, LLC (MMC), LSA Associates, Inc. (LSA) conducted a cultural resources assessment of the Chula Vista Energy Project, located in the City of Chula Vista, in San Diego County, California. The assessment consisted of a records search performed at the South Central Coastal Information Center (SCCIC) located at San Diego State University, and a pedestrian field survey. The research and field survey were conducted to determine whether improvements and upgrades to the existing electrical facility would impact historical and/or archaeological resources. The cultural resources assessment was completed pursuant to the California Environmental Quality Act (CEQA).

The records search indicated that no cultural resources have been previously documented within the project area and one cultural resource is located within the 0.5-mile records search radius. Two cultural resources studies have been conducted that include all or part of the proposed project. The field survey showed that the entire ground surface of the 3.82-acre property has been disturbed by grading and modern, built environment. A recent geotechnical investigation indicates that a minimum of 23 feet of artificial fill underlies the entire project area (Jeffrey Kent, personal communication). Due to absence of recorded archaeological and historical resources in or adjacent to the project area and the negative results of the field survey, no further investigation or monitoring is recommended. If previously undocumented cultural resources are identified during earthmoving activities, a qualified archaeologist should be contacted to assess the nature of the find, diverting construction activities if necessary.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

## INTRODUCTION

LSA is under contract to MMC to conduct a cultural resources assessment for the Chula Vista Energy Project in the City of Chula Vista (City), San Diego County (County), California. This study was undertaken to determine whether cultural resources are present in the project area. This assessment addresses the requirements of CEQA (as amended January 1, 2006): Public Resources Code (PRC), Division 13 (Environmental Quality), Chapter 2.6 Section 21083.2 (Archaeological resources) and Section 21084.1 (Historical resources); and the Guidelines for CEQA (as amended December 1, 2005), California Code of Regulations (CCR) Title 14, Chapter 3, Article 5 Section 15064.5 (Determining the Significance of Impacts on Historical and Unique Archaeological Resources).

The project area is located at 3497 Main Street. It is identified by San Diego County as Assessor Parcel Number 629-062-04-00. The project site is situated south of Main Street with an approximate set-back of 835 feet. There is no frontage along Main Street; access is provided via an access easement along the eastern perimeter of the project site. Project plans include installation and operation of two (GE) LM6000 combustion turbine units and removal of the existing 44.5 megawatt (MW) twin-pack simple cycle power plant once new units are operational. The project will increase the efficiency of energy generation on site and is expected to add approximately 48 MW (net) to the existing site.

The project area consists of urban disturbed and developed land that has been landscaped with nonnative vegetation. The portions of the project site that have not been developed are graded, regularly maintained, and mowed. The project area is approximately 60 feet above mean sea level and can be found on the U.S. Geological Survey (USGS) 7.5-minute series topographic *Imperial Beach, California* quadrangle within Township 18 South, Range 2 West, Section 22 (Figure 1). The project site is surrounded by light industrial/commercial businesses to the west; areas to the east are currently under construction for commercial use; a salvage yard exists to the north; and the Otay Valley Regional Park is located to the south.

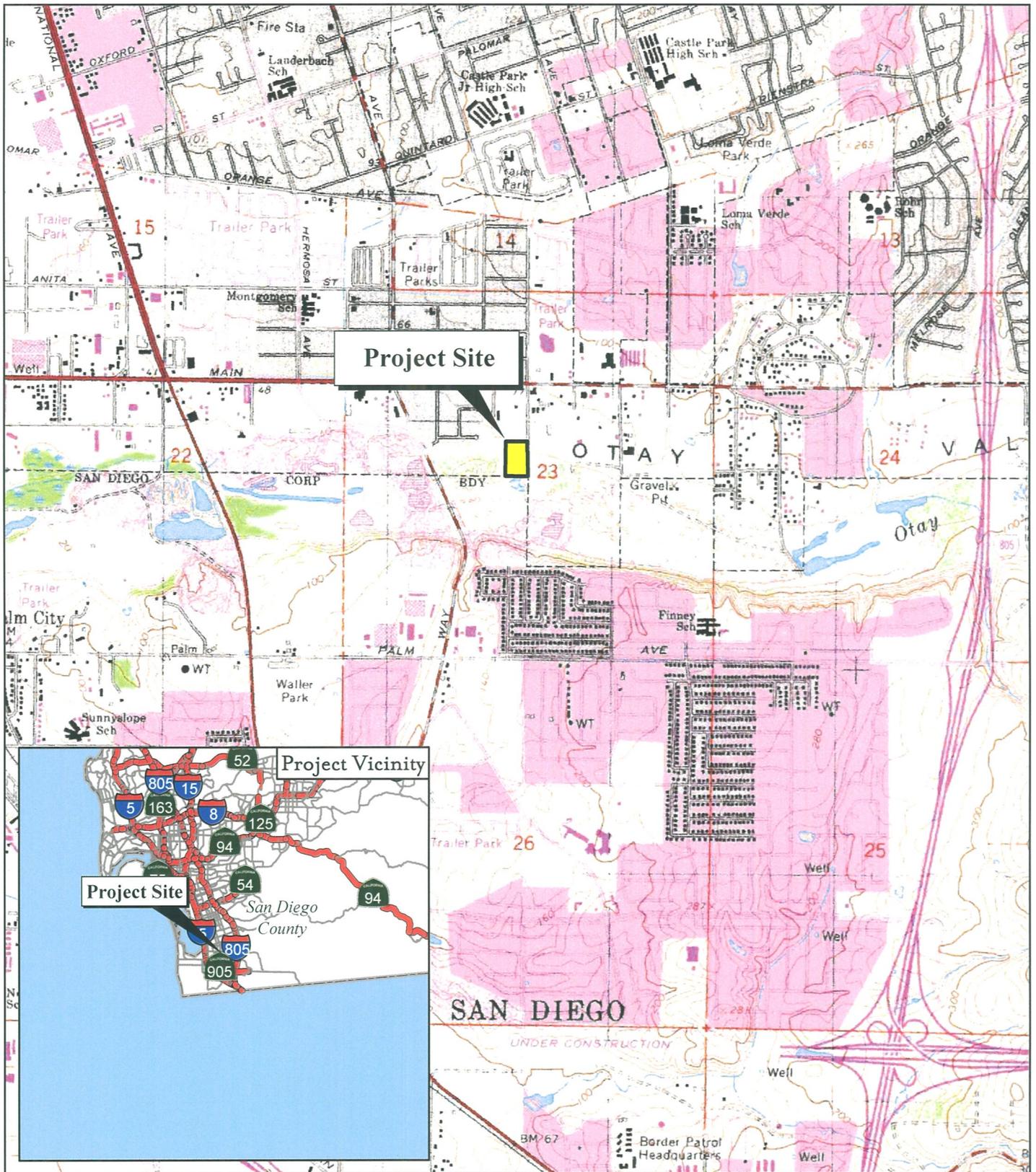


FIGURE 1

LSA



LEGEND  
 PROJECT BOUNDARY

Chula Vista Energy Efficiency Upgrade  
 Project Location

SOURCE: USGS 7.5' QUAD, IMPERIAL BEACH (1975), CALIF.

i:\mme0601\gis\project\_location.mxd (10/02/06)

## NATURAL SETTING

The project area lies within the geomorphic province of the Peninsular Ranges. This region is characterized by a series of ranges separated by northwest-trending valleys, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to that of the Coast Ranges, but the geology is more like that of the Sierra Nevada, with granitic rock intruding on the older metamorphic rocks. The Peninsular Ranges extend into Baja California and are bounded on the east by the Colorado Desert. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas Islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province (California Geological Survey 2002).

Specifically, the project area is located on the Pleistocene terrace on the north side of the Otay River. The geology is Pleistocene-age alluvium consisting of rounded cobbles, gravels, and sands (California Geological Survey 2002). A recent geotechnical investigation indicates that a minimum of 23 feet of artificial fill underlies the entire project area (Jeffrey Kent, personal communication).

The biology of the area has been completely altered by previous development. Historically, the project area would have been within the Diegan coastal sage scrub vegetation community (Jaeger and Smith 1971). Species common to this community include broom baccharis (*Baccharis sarathroides*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and coast goldenbush (*Isocoma menziesii*). Other sage scrub components include deerweed (*Lotus scoparius*), saw-toothed goldenbush (*Hazardia squarrosa*), California encelia (*Encelia californica*), golden yarrow (*Eriophyllum confertiflorum*), bush monkeyflower (*Mimulus aurantiacus*), and needlegrass (*Nassella* sp.). Along the Otay River south of the project, the vegetation currently consists of Southern Arroyo Willow Riparian Forest. This community is dominated by willow species. The dominant component is arroyo willow (*Salix lasiolepis*), followed by Goodding's black willow (*Salix gooddingii*). Other components include mulefat (*Baccharis salicifolia*), mugwort (*Artemisia douglasiana*), poison oak (*Toxicodendron diversilobum*), bush monkeyflower (*Mimulus aurantiacus*), laurel sumac (*Malosma laurina*), and Mexican elderberry (*Sambucus mexicana*), with scattered occurrences of hottentot fig (*Carpobrotus edulis*), pampas grass (*Cortaderia jubata*), tree tobacco (*Nicotiana glauca*), and castor bean (*Ricinus communis*).

## CULTURAL SETTING

### PREHISTORY

The development of a regional chronology marking the major stages of cultural evolution in the Southern California area has been an important topic of archaeological research. In general, cultural developments in Southern California have occurred gradually and have shown long-term stability.

Rogers (1929, 1945) established the basic cultural sequence for San Diego County, which has subsequently been revised and refined by subdividing or collapsing cultures or renaming the sequence. Wallace's synthesis (1955) and its use of cultural horizons has been applied to all of coastal Southern California.

#### Early Period (Prior to 6000 BC)

The Early Period (also known as the San Dieguito Culture) covers the interval from the first presence of humans in Southern California until postglacial times (6000 BC). Artifacts and cultural activities from this period represent a predominantly hunting culture; diagnostic artifacts include extremely large, often fluted bifaces associated with use of the spear and the atlatl (Wallace 1955; Moratto 1984).

#### Milling Stone Period (6000 BC to 3000 BC)

The transition from the Early Period to the Milling Stone Period (Rogers' La Jolla I Culture) is marked by an increased emphasis on the processing of seeds and edible plants and is estimated to have occurred between 6000 BC and 3000 BC. According to Wallace (1978:28), wild seeds and edible plants formed the primary food source during this period, with only limited use of shellfish and faunal resources; plant resources were processed using deep-basined mills and handstones, hence the term Milling Stone Period. Milling Stone Period settlements were larger and were occupied for longer periods of time than those of the Early Period, and mortuary practices included both flexed and extended burials, as well as reburials. Grave offerings were few, although rock cairns were sometimes placed over the bodies (Wallace 1955:192; 1978:28).

Diagnostic artifacts recovered from Milling Stone Period archaeological sites include metates and manos, and large projectile points indicating the continued use of darts and atlatls (Moratto 1984:149–150).

Wallace (1978:28) offers two possible scenarios to explain the cultural changes that occurred during the Milling Stone Period. Quite possibly, both processes occurred simultaneously in different geographical areas. In some regions (such as western San Diego County), Milling Stone cultures may have evolved gradually as the earlier hunting peoples learned to exploit a wider variety of food resources; in others, people migrating from interior regions may have introduced to coastal areas the technology for processing seeds and plant foods. Evidence for such migrations may be found in

climatic data. The onset of the Milling Stone Period corresponds to an interval of warm, dry weather known as the Altithermal, during which many of the inland lakes disappeared and the region became less habitable, perhaps triggering the coastal migrations believed to have occurred at this time (Wallace 1978:28).

More recent excavations along the central California coast demonstrate that the boundary between the Early Period and the Milling Stone Period are not necessarily clear-cut. According to Jones et al. (2002), "Excavations at the Cross Creek site (CA-SLO-1797) on the central coast of California revealed a stratigraphically discrete midden component dating between ca. 8350 and 7700 BC, making it the oldest mainland shell midden on the west coast of North America. A large recovery volume revealed an assemblage dominated by grinding implements (handstones and milling slabs) and crude core and flake tools typical of California's Milling Stone horizon, but the Cross Creek findings extend the antiquity of Milling Stone back to the terminal Pleistocene. The tools and associated faunal remains suggest a gathering economy profoundly different from the terminal Pleistocene big-game hunting of interior North America" as well as the widely accepted chronologies for Southern California that characterize the early period as hunting-oriented.

### **Intermediate Period (3000 BC to AD 500)**

By approximately 3000 BC, the inhabitants of Southern California were exploiting a diverse array of food resources including seeds and edible plants, shellfish, fish, and mammals. Along the coast, a greater reliance was placed on marine food resources, as evidenced by the recovery of nearshore and pelagic (deep-water) fish remains from archaeological sites (Moratto 1984:153; Wallace 1978:30–31).

Intermediate Period sites are characterized by the appearance of the mortar and pestle (although the mano and metate continued in use) and small projectile points. The use of the mortar and pestle may indicate an increased reliance on acorns as a food source, while the small projectile points suggest that the bow and arrow were in limited use (Elsasser 1978:55; Wallace 1978:30–31). The circular shell fishhook also makes its appearance in coastal sites during this period; the circular fishhook is found most abundantly in areas adjacent to a rocky coastline and may have been less subject to fouling than gorges and other types of hooks (Strudwick 1986:283–284).

Researchers have had difficulty distinguishing Intermediate Period sites, since many of the tool types appear in earlier and later periods; the few known sites have often been identified using radiocarbon or obsidian hydration methods. The Intermediate Period corresponds to Rogers' La Jolla II Culture.

### **Late Period (AD 500 to 1769)**

The Late Period (Rogers' Yuman Cultures), which began in approximately AD 500, witnessed a number of important cultural developments in Southern California, including the concentration of larger populations in settlements and communities, greater utilization of available food resources, and the development of regional subcultures. Cremation was the preferred method of burial during the Late Period, and elaborate mortuary customs with abundant grave goods were common. Other cultural traits indicative of the Late Period include increased use of the bow and arrow, steatite containers, circular shell fishhooks, asphaltum (as an adhesive), bone tools, and personal ornaments

of bone, shell, and stone (Bean and Smith 1978; Elsasser 1978:56; Moratto 1984:159; Wallace 1955:195). Because many of these artifacts are also recovered from earlier periods, other indicators must sometimes be used to distinguish Late Period sites.

A number of the cultural elements found in various areas of Southern California during the Late Period have been linked to the migration of Uto-Aztecan-speaking peoples from the Great Basin; these traits include the manufacture of ceramics, the use of small triangular arrow points, and interment by cremation. The date of the Uto-Aztecan migration (which probably occurred in several successive waves over an extended period) remains uncertain; it has been dated as early as 2000 BC and as late as AD 700. Linguistic evidence suggests a date of AD 1 to 500 (Koerper 1979; Kroeber 1976:574–580; Moratto 1984:161).

## **ETHNOGRAPHY**

### **Diegueño/Tipai-Ipai/Kumeyaay**

When the Spanish established the Mission San Diego de Alcalá and the Presidio in 1769, they applied the collective name Diegueño to the indigenous bands living in the area. After the 1950s, anthropologists began replacing the Spanish name Diegueño with the names Tipai and Ipai. These Yuman-speaking bands occupied nearly the entire southern extreme of the present state of California and adjoining portions of northern Baja California (Luomola 1978:592). In 1973 some of the Diegueño of southern San Diego County stated a preference for Kumeyaay as their own name, establishing the Kumeyaay Tribal Affairs Office in El Cajon and the Kumeyaay Corporation (Hedges 1975:77; Langdon 1975:69; Luomola 1978:607). The word Kumeyaay lies behind many variants recorded from 1775 to the present as the name for themselves used by Diegueño groups from the Pacific Coast to the Colorado River, but not including the Ipai or Northern Diegueño (Hedges 1975; Langdon 1975). Kumeyaay has since become the commonly accepted name for the ethnographic inhabitants of the project area. Many of the Native American Indians in San Diego today are descendants of the Kumeyaay tribe who roamed here for hundreds of years.

## **HISTORY**

The Historic period officially began in San Diego County with the establishment of Mission San Diego de Alcalá in present day San Diego. The Spanish efforts to Christianize the local inhabitants and teach them agriculture and crafts met with more resistance than elsewhere in California. Twice within the first six years, attacks on the Mission ended with fatalities. In 1775, a year after the Mission was relocated away from the Presidio, about 800 people from some 70 villages united to burn the Mission. Nonetheless, the Spanish subjugation of the Ipai continued, and by 1811 the mission had 1,559 neophytes (Luomala 1978:595). The missionization of the indigenous peoples had disastrous effects on the local population, as diseases flourished in the native inhabitants who lacked the immunities of the Europeans. The result was the decimation of the native population and its culture as it existed at the time of European contact.

## **Chula Vista**

In 1795, Chula Vista became a part of a Spanish land grant known as Rancho del Rey, or “The King’s Ranch.” When Mexico formed its own government in 1831, Rancho del Rey was changed to Rancho del la Nation, or National Ranch. The ranch encompassed the area now known as National City, Chula Vista, Bonita, Sunnyside, and the Sweetwater Valley. Rancho del la Nation was used by the Spanish as grazing land for their cattle and horses until 1845, when it was granted to John Forster, the son-in-law of Mexican governor Pio Pico.

The United States claimed California following the Mexican-American War in 1847. Even though California became a state in 1850, land grants were allowed to remain as private property under American law, and Forster continued to operate the ranch for 10 years until he sold it to a French developer. The land was then sold to brothers Frank, Warren, and Levi Kimball in 1868. They intended to develop the land into productive American-style cities and farms. Frank Kimball is also responsible for bringing the Santa Fe Railroad to San Diego, with its first terminus in National City.

Several directors of the Santa Fe Railroad and Colonel W.G. Dickerson, a professional town planner, formed the San Diego Land and Town Company. The company set out to develop lands of the National Ranch for new settlers. They issued promotional material to attract settlers that read: “Upon the best part of this tract, 5,000 acres are being subdivided into five acre lots with avenues and streets 80 feet in width running each way, the steam motor road passing though the center. This tract, known as Chula Vista, lies but a mile from the thriving place of National City.” With this announcement, the boom of the 1880s was on and the City of Chula Vista, roughly translated in Spanish as “beautiful view,” was born.

In 1888, the Sweetwater Dam was completed to bring water to Chula Vista residents and their farming lands. Frank Kimball became the State Commissioner of Agriculture and discovered citrus trees to be the most successful crop for the area. Chula Vista eventually became the largest lemon-growing center in the world for a period of time.

On October 17, 1911, an election was held in Chula Vista to incorporate, and the people voted in its favor. The State of California approved this Act of Incorporation in November. Local farmers continued to grow lemons as their primary crop, utilizing more than eight packing houses in the city. However, a period of severe weather came to the area in the following years, causing extensive damage. Crops suffered from a deep freeze in 1913 and droughts in 1914 and 1915. The floods of 1916 caused major damage, and a catastrophic break in the Lower Otay Dam released millions of gallons of water in two and a half hours. Railroad tracks near Second Avenue were swept away, 23 homes were destroyed, and more than 20 people were killed.

At the peak of World War I in 1916, the Hercules Powder Company (Hercules) began the design and construction of a kelp processing plant covering a 30-acre plot of land in Chula Vista. Kelp was an ideal source of materials used in the production of explosives. The plant produced potash and acetone to make cordite, a smokeless powder used extensively by the British armed forces in World War I. Hercules produced 20,838,000 kilos of cordite for the British government during the war, making it the largest kelp harvesting fleet in the world at the time. The plant was located on what is now known as Gunpowder Point, currently the home of the Chula Vista Nature Center.

World War II ushered in changes that would affect the City of Chula Vista forever. The principal reason was the relocation of Rohr Aircraft Corporation to Chula Vista in early 1941, just months before the attack on Pearl Harbor. Rohr employed 9,000 workers in the area at the height of its wartime production. With the demand for housing, the land never returned to being orchard groves again. The population of Chula Vista more than tripled from 5,000 residents in 1940 to more than 16,000 in 1950.

After the war, many of the factory workers and thousands of servicemen stayed in the area, resulting in a huge growth in population. During those years, numerous schools, homes, banks, restaurants, gas stations, and shopping centers opened to accommodate the growing number of residents. The last of the citrus groves and produce fields disappeared as Chula Vista became one of the largest communities in the area. In 2003, Chula Vista had 200,000 residents and was the second-largest city in San Diego County. As the City continues to grow, it strives for a balance of attractive neighborhoods and a strong business base but holds fast to maintaining a sense of community and the small-town values upon which it was founded.<sup>1</sup>

---

<sup>1</sup> The above history of Chula Vista was summarized from the City of Chula Vista Web site, <http://www.chulavistaca.gov/About/History.asp>. Online site accessed in October 2006.

## **METHODS**

### **RECORDS SEARCH**

Prior to fieldwork, a records search was conducted at the SCCIC of the California Historical Resources Inventory System, located at San Diego State University. This included a review of all recorded historic and prehistoric archaeological sites, as well as a review of known cultural resource surveys and excavation reports generated from projects located within 0.5 mile of the project area. In addition, a review was conducted of the National Register of Historic Places (National Register). Documents and inventories from the California Office of Historic Preservation including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures were also reviewed. Historic maps were examined for any historic resources that may have been within the project area.

### **FIELD SURVEY**

A reconnaissance-level pedestrian field survey of the project area was conducted on October 10, 2006, by LSA Archaeologist Phil Fulton. The survey was conducted by walking parallel transects spaced approximately 10 meters (m) apart over all areas where ground surface was visible until the entire project area had been surveyed. Back dirt from animal burrows was examined for evidence of buried cultural remains.

## RESULTS

### RECORDS SEARCH

The results of the records search indicate that two cultural resource studies have been conducted within a 0.5-mile radius of the project area. One of these studies slightly overlaps the project area along its southern boundary (Cheever 1989). The other covers the project area in its entirety (Advanced Sciences, Inc. 1991). One cultural resource has been documented within the 0.5-mile records search radius: CA-SDI-11964, a light-density shell scatter consisting of 12 fragments of sp. *Chione* and sp. *Pectin*, located in a disturbed area approximately 2,000 feet to the east/northeast (Ferraro 1990). No artifacts were recorded with this site. No cultural resources have been recorded within the project site. The records search results are included as Appendix A.

### FIELD SURVEY

No archaeological or historical resources were identified during the field survey. The survey of the parcel indicated that the entire ground surface has been disturbed by grading and other development associated with the current electrical facility and/or past uses of the site. Buried utility lines also run through the property. Ground visibility was excellent in the undeveloped northern portion of the project because the area had been recently mowed. The soil consisted of coarse-grained sand, gravel, and cobble alluvium. A recent geotechnical study of the project area identifies this alluvium as artificial fill that extends to a minimum depth of 23 feet (Jeffrey Kent, Ninyo and Moore, personal communication). Photographs of the project area are included in Appendix B.

## RECOMMENDATIONS

Negative results of the records search and field survey indicate that the development of the project area is not likely to impact any cultural resources older than 50 years. The project area is not considered sensitive for cultural resources because of disturbance associated with the modern usage of the site and the presence of artificial fill to depth. Therefore, no further investigation or monitoring is recommended. If previously undocumented cultural resources are identified during earthmoving activities, a qualified archaeologist shall be retained to assess the nature of the find, diverting construction excavation if necessary.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify an MLD. With the permission of the landowner or his/her authorized representative, the descendent may inspect the site of the discovery. The descendent shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

## REFERENCES

### Advanced Sciences, Inc.

- 1991 An Archaeological Impact Evaluation for the Otay River Valley Resource Enhancement Plan. Advanced Sciences, Inc. Submitted to Wallace, Roberts, and Todd. Unpublished Report on file at SCCIC, San Diego State University.

### Anonymous

- 2006 City of Chula Vista Web site: [www.chulavistaca.gov/About/History.asp](http://www.chulavistaca.gov/About/History.asp).

### Bean, Lowell John and Charles R. Smith

- 1978 Gabrieliño. in R.F. Heizer ed., *California*, pp. 538–549. *Handbook of North American Indians*, Vol. 8. Washington D.C.: Smithsonian Institution.

### California Geological Survey

- 2002 *California's Geomorphic Provinces*: California Department of Conservation, California Geological Survey, Note 36. Revised 12/2002.

### Cheever, Dayle

- 1989 Cultural Resources Survey of the H.G. Fenton Materials Company Property, City of Chula Vista, CA. Recon. Submitted to H.G. Fenton Materials Co. Unpublished Report on file at SCCIC, San Diego State University. NADB No. 1120585.

### Elsasser, Albert B.

- 1978 Development of Regional Prehistoric Cultures, *in California*, R.F. Heizer, ed., *Handbook of North American Indians*, Vol. 8, Smithsonian Institution, Washington, D.C.

### Ferraro, D.

- 1990 Archaeological Site Record, CA-SDI-11964. On file, SCCIC, San Diego State University.

### Hedges, Ken

- 1975 Notes on the Kumeyaay: A Problem of Identification. *Journal of California Anthropology* 2(1): 71–83.

### Jaeger, Edmund C. and Arthur C. Smith

- 1971 *Introduction to the Natural History of Southern California*. California Natural History Guides: 13. Los Angeles: University of California Press.

### Jones, Terry L., Richard T. Fitzgerald, Douglas J. Kennett, Charles H. Miksicek, John L. Fagan, John Sharp, Jon M. Erlandson

- 2002 The Cross Creek Site (CA-SLO-1797) and Its Implications for New World Colonization. *American Antiquity*, Vol. 67, No. 2 (Apr., 2002), pp. 213–230.

Koerper, Henry C.

- 1979 On the Question of the Chronological Placement of Shoshonean Presence in Orange County, California, *Pacific Coast Archaeological Society Quarterly*, 15(3): 69–84.

Kroeber, Alfred L.

- 1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin, No. 78. Washington, D.C.: Smithsonian Institution. Reprint, Dover Publications, New York, 1976.

Kroeber, Alfred L.

- 1976 *Handbook of the Indians of California*. Reprinted. Dover Publications, New York. Originally published 1925, Bulletin No. 78, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Langdon, Margaret

- 1975 Kamia and Kumeyaay: A Linguistic Perspective. *Journal of California Anthropology* 2(1):64–70.

Luomola, Katherine

- 1978 Tipai-Ipai, in *California*, R.F. Heizer, ed., *Handbook of North American Indians*, Vol. 8, Smithsonian Institution, Washington, D.C.

Moratto, Michael J.

- 1984 *California Archaeology*. San Diego: Academic Press.

Rogers, Malcolm J.

- 1929 The Stone Art of the San Dieguito Plateau. *American Anthropologist* 31(3):454–467.
- 1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1(1):167–198.

Strudwick, Ivan H.

- 1986 Temporal and Areal Considerations Regarding the Prehistoric Circular Fishhook of Coastal California. Unpublished MA thesis, Department of Anthropology, California State University, Long Beach.

Wallace, William J.

- 1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214–230.
- 1978 Post Pleistocene Archaeology 9000–2000 BC in R. F. Heizer, ed, *Handbook of North American Indians*, Vol. 8, *California*, pp. 25–36. Washington, D. C.: Smithsonian Institution.

**APPENDIX A**  
**RECORDS SEARCH LETTER**

October 2, 2006

Dr. Seth Mallios  
South Coastal Information Center  
San Diego State University  
4283 El Cajon Blvd., Suite 250  
San Diego, California 92105

Subject: Records Search Request for the Chula Vista Energy Project

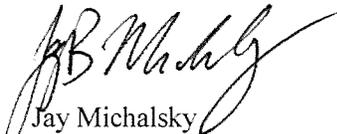
Dear Dr. Mallios:

LSA Associates, Inc. (LSA) is under contract to MMC Energy to provide a records search for the Chula Vista Energy project. Attached please find a portion of the *Imperial Beach, California 7.5-minute topographic quadrangle map* showing the Chula Vista Energy project area and a one-half mile radius around it. Please plot all previous surveys and archaeological sites, and all historic resources over 45 years old that are within the one-half mile radius. Please photocopy site records of archaeological sites that are within the one-half mile radius. We also need bibliographic references and an examination of the following inventories: National Register of Historic Places, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest, as well as an examination of the Historic Properties Directory.

Please use LSA job number MME0601 on your invoice. Please contact me at (949) 553-0666 if you have any questions. Thank you very much for your assistance with this project.

Sincerely,

**LSA ASSOCIATES, INC.**



Jay Michalsky  
Cultural Resource Analyst

Attachment: Map

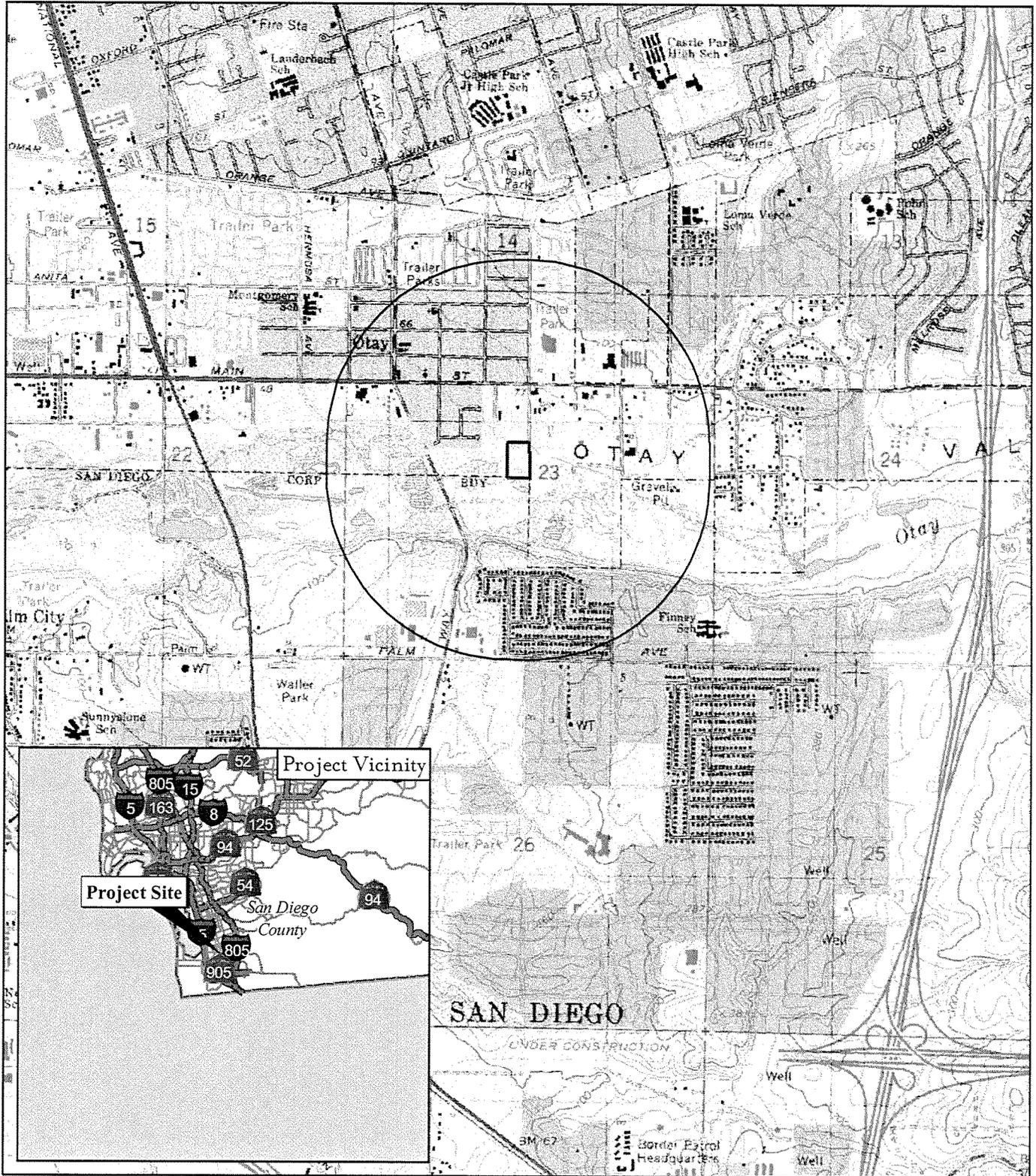


FIGURE 1

LSA

LEGEND  
 [Black Outline] PROJECT BOUNDARY  
 [Shaded Area] 1/2 MILE BUFFER



SOURCE: USGS 7.5' QUAD, IMPERIAL BEACH (1975), CALIF.

Chula Vista Energy Project  
 Cultural Resources Records Search



South Coastal Information Center  
College of Arts and Letters  
4283 El Cajon Blvd., Suite 250  
San Diego CA 92105  
TEL: 619•594•5682

## CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM SITE FILES RECORD SEARCH

**Company:** LSA Associates  
**Company Representative:** Jay Michalsky  
**Date of Request:** 10/2/2006  
**Date Processed:** 10/3/2006  
**Project Identification:** Chula Vista Energy Project  
**Search Radius:** 1/2 mile

**Historical Resource(s):** SM **Date:** 10/3/2006

Trinomial (CA-SDI) and Primary (P-37) site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

**Previous Archaeological Project Boundarie(s):** SM **Date:** 10/3/2006

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

**Historic Map(s):** SM **Date:** 10/3/2006

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

**Historic Address(es):** SM **Date:** 10/3/2006

A map and database of historic addresses (formerly Geofinder) has been included.

**HOURS:** 4

**COPIES:** 25

**RUSH:** No

*This is not an invoice. Please pay from the monthly Billing Statement.*

## **APPENDIX B**

### **PROJECT PHOTOGRAPHS**



Overview of the project area from the northwest corner, view to the south.



Overview of northern portion of the project area from the north edge of the paved area, view to the north.

LSA

*Efficiency Upgrade Project*  
*Chula Vista Energy*  
Site Photos



Overview of the project area from the northeast corner, view to the south.



Overview of the project area from the northwest corner, view to the southeast.

LSA

*Efficiency Upgrade Project*  
*Chula Vista Energy*  
Site Photos