

5.3 Cultural Resources

5.3.1 Introduction

This section discusses the potential effects of the Carlsbad Energy Center Project (CECP) on cultural resources. The CECP will be located at the existing Encina Power Station site. The two new units will be on the northeast area of the existing site, between the existing rail line and I-5 highway, and at the location of existing fuel oil tanks Nos. 5, 6, and 7. These three tanks are being demolished as part of the ongoing operation and maintenance of the Encina Power Station. The CECP site will consist of approximately 23 acres. Approximately 3 acres on the existing site will be available during construction for construction worker parking and approximately 7 acres will be available for construction equipment/material laydown.

The CECP site is located in the City of Carlsbad, in San Diego County in an area designated as Public Utility which allows electrical generation and transmission facilities. Figure 5.3-1 shows the location of the generating facility, electric transmission lines, natural gas supply pipeline, reclaimed water supply pipeline, and potable water supply line. Figure 5.3-2 depicts the area surveyed for cultural resources.

This section is consistent with state regulatory requirements for cultural resources pursuant to California Environmental Quality Act (CEQA). Cultural resources include prehistoric and historic archaeological sites;¹ districts and objects; standing historic structures, buildings, districts and objects; and locations of important historic events, or sites of traditional/cultural importance to various groups.² The study scope was developed in consultation with the California Energy Commission's (CEC) cultural resources staff 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, a Cultural Resource Specialist 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).

¹ Site – "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).

² 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. 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.

Section 5.3.2 discusses the LORS applicable to the protection of cultural resources. Section 5.3.3 cultural resources environment that might be affected by the CECP. Section 5.3.4 discusses the environmental consequences of construction and operation of the proposed development. Section 5.3.5 determines whether there will be any cumulative effects from the project. Section 5.3.6 presents mitigation measures that will be implemented to avoid construction impacts. Section 5.3.7 provides standard conditions of certification. Section 5.3.8 lists the agencies involved and agency contacts, and Section 5.3.8 discusses permits and the permitting schedule. Section 5.3.9 lists reference materials used in preparing this section.

Per CEC Data Adequacy requirements, Appendix 5.3A provides copies of agency consultation letters. Appendix 5.3B provides the Historical Resources Inventory and Evaluation Report prepared by JRP Historical Consulting and DPR 523 forms for newly-recorded resources. Confidential Appendix 5.3C provides a copy of the CHRIS literature search results including copies of previous technical reports occurring within ¼ mile of the project and DPR 523 forms for previously recorded resources occurring within one mile of the project and ¼ mile of linear facilities. Appendix 5.3D provides names and qualifications of personnel who contributed to this study. Appendix 5.3E provides Confidential Figure 5.3E-1, depicting the specific area surveyed for cultural resources and known cultural resources occurring within one mile of the project or ¼ mile of linear facilities. Confidential Appendix 5.3F provides the Cultural Resources Assessment of the area surveyed.

The CECP is subject to the CEC power plant licensing requirements which is a CEQA equivalent process. 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 USC 469), among others, because it is not a federal undertaking (federally permitted or funded).

5.3.2 Laws, Ordinances, Regulations and Standards

Among the local LORS discussed in this section are certain ordinances, plans or policies of the City of Carlsbad. For informational purposes, this section reviews compliance of the project with such requirements even though the Applicant understands that they are not applicable to the project as a matter of law. (See Section 5.6, Land Use, for a discussion of this issue.) The analysis of local LORS in this section is informational and does not address the jurisdictional issues, which are discussed in Section 5.6, Land Use. 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 5.3-1.

5.3.2.1 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 California Register of Historic Resources (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 CRHR³ is presumed to be historically or culturally significant.⁴

TABLE 5.3-1
Laws, Ordinances, Regulations, and Standards Applicable to Cultural Resources

Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity?
State		
California Environment Quality Act Guidelines	Project construction may encounter archaeological and/or historical resources	Yes
Health and Safety Code Section 7050.5	Construction may encounter Native American graves; coroner calls the Native American Heritage Commission (NAHC)	Yes
Public Resources Code Section 5097.98	Construction may encounter Native American graves; NAHC assigns Most Likely Descendant	Yes
Public Resources Code Section 5097.5/5097.9	Would apply only if some project land were acquired by the state (currently no state land)	Yes
Local		
City of Carlsbad <i>City of Carlsbad Cultural Resources Guidelines</i>	Project construction may encounter archaeological and/or historical resources	Yes
City of Carlsbad <i>Ordinance 9776</i>	Project construction may encounter archaeological and/or historical resources	Yes
City of Carlsbad General Plan, Historic Preservation Element	Emphasizes the conservation of resources	Yes

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).

³ 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.

⁴ 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.

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,⁵ Section 21083.2 requires the Lead Agency to treat that effect as a significant environmental effect and prepare an Environmental Impact Review (EIR). 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 San Diego 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 remains are determined by the coroner to be Native American, the Coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native American so they can inspect the burial site and make recommendations for treatment or disposal.

5.3.2.2 Local LORS

As discussed above, among the local LORS discussed in this section are certain ordinances, plans or policies of the City of Carlsbad. For informational purposes, this section reviews compliance of the project with such requirements even though the Applicant understands that they are not applicable to the project as a matter of law. (See Section 5.6, Land Use, for a discussion of this issue.) The analysis of City LORS in this section is informational and does not address the jurisdictional issues which are discussed in Section 5.6, Land Use.

The City of Carlsbad's General Plan Open Space and Conservation Element (2006) describes the city's general cultural resources preservation goals and objectives and may apply.

The City of Carlsbad's *Ordinance 9776* may apply. It establishes a Historic Preservation Commission to advise the city regarding the identification, protection, retention, and preservation of historic areas and sites within the city. It also establishes the Carlsbad Historic Resources Inventory.

⁵ 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.

The City of Carlsbad's *Cultural Resources Guidelines* (1990) describe standards for conducting cultural resources studies and are also applicable.

5.3.3 Affected Environment

In southern 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 southern California.

5.3.3.1 Regional Setting

The CECP site is located within the boundaries of the existing site known as the Encina Power Station, located at 4600 Carlsbad Blvd, within the City of Carlsbad, California. The CECP site is located on a Pleistocene marine terrace within the Peninsular Ranges physiographic province of California. The CECP site is relatively flat. A considerable amount of disturbance has occurred over the entire existing Encina Power Station location, including the CECP site. Extensive excavation, grading, and deposition of fill occurred in during the Station's initial construction in the 1950's and proceeded during various stages of upgrades and expansions up to the present. Historic photographs reveal that prior to construction, the entire property was graded, leveled, fill brought in, a stream channelized, portions of the lagoon were dredged, and an underground water intake was built to bring water into the plant from the ocean (Jeff Bisson, 2007, pers. comm.; Smallwood, 2005). The area of the existing storage tanks have been excavated to bedrock. Geotechnical evaluations within the plant confirm the presence of fill to a depth of at least 10 feet.

5.3.3.2 Prehistoric Period

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 first useful chronology for southern California in general was developed by William Wallace (1955), who described four distinct periods applicable to the southern California coastal region. Although dated, the chronology's relative accuracy has been vindicated by more recent radiocarbon dates, and archaeologists still find it applicable.

5.3.3.2.1 Early Period

Wallace's earliest period is called Horizon I: Early Man, and dates from the end of the Pleistocene (approximately 12,000 years ago) to about 7,500 years ago. The surviving material culture of this period consists primarily of large, well-made projectile points as well as large, but crude, stone tools such as scrapers and choppers. Many encampments during this period were not permanent, and were sited near the kills of Pleistocene megafauna (mastodon, mammoth, giant bison). Such an economy, using only a small fraction of the

available resources, did not support large populations; and early groups were generally no larger than extended families. As the Pleistocene ended and the megafauna suddenly became extinct, prehistoric people during this period were forced to broaden their resource extraction base.

5.3.3.2 Millingstone Period

The succeeding period identified by Wallace, Horizon II: Millingstone Assemblages (7,500 to 5,000 years ago), gets its name from the sudden appearance in the archaeological record stone milling tools, such as the mano (handstone) and slab and basin metate (flat grinding stone). These tools were used to process the small, hard seeds associated with the sage scrub ecological community. Settlement size seems to have increased, compared with the previous period. An annual round of seasonal migrations was likely practiced as movements coincided with ripening vegetal resources and rotated among hunting and gathering grounds to avoid over-exploitation of resources in a given area.

5.3.3.3 Intermediate Period

The Millingstone Period is followed, in Wallace's scheme, by Horizon III: Intermediate Cultures (5,000 to 1,000 years ago). The major change marking this new period was the introduction of the mortar and pestle. This tool is an indicator of the intensification of acorn food production. Although the acorn had been present and was no doubt used as a food source earlier than this, the need for labor-intensive processing of this food (grinding and leaching) may have discouraged people from extensive use until increasing population densities made it necessary to extract more food from a given group's territory. Flaked stone tools also became more diverse and plentiful during this period. Along with population growth came the increasing diversification of food resources. Late in this period, the bow and arrow was introduced, as indicated by the greater number of small, finely flaked projectile points. This technology spread across North America about 1500 years ago from an unknown origin point. It allowed for more accurate, if less powerful, propulsion of projectiles than the previous spear thrower (atl-atl) and dart technology and is thus more useful for shooting smaller game.

5.3.3.4 Late Prehistoric Cultures

Wallace's final phase is called Horizon IV: Late Prehistoric Cultures. In the Late Prehistoric (1,000 to 200 years ago), groups increasingly developed extensive trade networks to bring exotic goods over long distances (shell for ornaments and currency from the Pacific Ocean, obsidian for tool-making from distant sources). The pattern of life in Horizon IV was more complex than during earlier periods. More classes of artifacts were being produced and they exhibited a more sophisticated degree of workmanship. Other items include steatite containers, shell fishhooks, perforated stones, bone tools, personal ornaments, asphalt adhesive and elaborate mortuary customs. In addition, the population increased and larger, more permanent villages evolved (Wallace, 1955).

5.3.3.3 Ethnographic Setting

The project area and much of San Diego County was occupied ethnographically by the Kumeyaay (Kroeber, 1925). The Kumeyaay were hunters/gatherers, relying on seasonally available animals for subsistence and local resources supplemented by the fruits of trade for all their needs. Each Kumeyaay band was adapted to the ecological region of its home territory. In the coast region, this pattern is expressed in a heavy reliance upon shellfish

augmented by acorns. Of note, the area of the Agua Hedionda Lagoon, which borders the Encina Power Plant, lies within an area where the traditional territories of the Kumeyaay and Luiseno may have possibly overlapped, at least during the late Prehistoric and Protohistoric periods. In any case, the area was occupied prehistorically, most likely predominantly by the Kumeyaay.

On the basis of archaeological evidence, Hector (1984) proposes that settlement patterns during the Late prehistoric period focused throughout the area upon the occupation of base camps, supported by nearby special-use camps. The base camp was in an optimum location for everyday living. The site included water, a hospitable sheltered environment, and proximity of necessities, such as food mainstays and stone tool raw materials, outlying special-use support camps were located close to a particular resource, and the location might not have related to any other habitation requirement. For instance, acorn grinding areas were close to bedrock and oaks. Shell harvesting took place immediately adjacent to the lagoon or open seacoast. It also appears that some resources were completely processed at the special-use camps and others were brought back to the base camp (Wade and Hector, 1986).

Occupation patterns in this interpretation are seen as flexible, with functional variations sometimes occurring over time: a site might thus serve as a base camp during one period and as a temporary camp during another. Bands followed a seasonal round, moving up and downslope as resources became seasonally available. The pre-contact cultural patterns of the coastal bands of the Kumeyaay are not well known. The coastal groups were the earliest to be affected by “missionization”.

The ethnographic description that follows is drawn from that of Katherine Luomala (1978).

Each Kumeyaay band was autonomous and had its own chief. A communal territory was claimed by each band, but there was some sharing of resources and even occasional co-occupation of villages by several bands. Structures varied according to locality and need from a simple windbreak in summer, to more substantial dwellings at base camps or in winter. A dwelling might be round or rectangular, with a slightly sunken floor covered by a dome or gable set on the ground. A pole framework was thatched and covered with grass and earth.

Individuals and families did not accumulate much material wealth and material culture was not much elaborated. The deceased was cremated with all his possessions, and tangible goods were not usually inherited.

Coastal Kumeyaay supplemented local resources through the trade of salt, dried seafood, greens, and abalone shell (for ornaments) to eastern groups in exchange for acorns, agave, mesquite beans, and gourds. There was probably considerable contact with groups with influences being seen, for example, in the use of pots as well as baskets.

The entry of Spanish missionaries into the coastal region in 1769 brought about the end of the natives' way of life there. Bands were not missionized wholesale, as the missions could not support large numbers of people. Individuals were captured, sometimes converted, educated to Spanish ways, and released. After the secularization of the missions in 1821, the Indians were essentially abandoned.

Some of those who had survived the disease and violence of early missionization returned to their former ways of life, which became increasingly difficult to pursue because the lands from which the Kumeymy had derived subsistence were granted to immigrants from Mexico. Most Indians gradually moved away from the coast. Many of the marshes and tideflats important to Kumeyaay who had lived on the margins of San Diego Bay were filled and were used for waterfront business construction.

5.3.3.4 Historic Setting

Commencement of the Historic period for San Diego County is generally accepted as 1769. Although there was contact with Spanish explorers as early as 1542, it was not until 1769 that colonial forces occupied this territory and claimed it for Spain. This action brought about the beginning of the Spanish period and saw the gradual acculturation of all aboriginal peoples in this area.

Through the development of a series of missions and presidios, Spain laid claim to virtually all of California. The first of the Alta California missions was founded on July 16, 1769, on a hill overlooking the San Diego Bay. This mission later moved east, into present-day Mission Valley, to the site of a large Kumeyaay village known as Nipaguay. The Presidio remained at the original location, above the area, which would later be known as Old Town.

The Spanish period spans the years from 1769 to 1822 with the Presidio and Mission San Diego de Alcala, the Mission San Luis Rey, Padre Dam and Flume, and several poorly preserved adobe structures within the county representing this period. It is known that a number of family ranchos were established during this period; however, little remains of these early settlements. It is also possible that elements of Spanish period sites and structures were incorporated into later building efforts.

The Mexican period (1822–1848) follows the Spanish period with Mexican independence from Spain. One of the early changes was the granting of land to private citizens and the secularization of vast Mission holdings. The Union Title Company shows 30 ranchos between Oceanside and Otay and the Pacific Ocean and the Laguna Mountains. Generally, these ranchos constituted vast land holdings over which cattle and sheep were grazed. The practice of utilizing natural valleys and slopes as open range for live stock is a typical practice for this region, well into the American period. Political responsibility for the region was transferred to the United States with the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848. However, the economic and demographic makeup of the San Diego area remained almost unchanged until years after California became a state on September 9, 1850.

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.

The community of Carlsbad is named for the popular 19th century Carlsbad Spa in Europe. The first mention of Carlsbad in the annals of history was in 1769, when a party of Spanish explorers, led by Don Gaspar de Portola, made its way into Alta California to claim the territory for the King of Spain (Carlsbad Historical Society, 2007).

Agua Hedionda means “stinking water” in English. The name is supposed to have been given the area by the first Spanish explorers. The odor they reported might have come from a nearby Indian village, a sulphur spring, or possibly from decayed matter on the shores of the lagoon. Don Juan María Marrón ruled Rancho Agua Hedionda in the 1840s. His land holdings extended from the Pacific Ocean inland almost to Vista and from Carlsbad south of Encina Canyon.

The Franciscan missionaries, in 1798, established Mission San Luis Rey several miles north of the lagoon. The mission known as The King of Missions became the largest of 21 missions in California extending over 20 square miles with herds of cattle, extensive crops and administering the lives of 2,000 Indian residents.

In 1833 the rich mission holdings were secularized and divided into large land grants of several thousand acres each. Initially claimed by influential Californios, the large ranches, over the next half century were sub-divided and sold off. With the coming of the railroad in 1883, the land between Los Angeles and San Diego was opened up to homesteaders.

The Carlsbad depot was built in 1887 by the Arizona Eastern Railway. The depot also served as a telegraph office, Post Office, Wells Fargo Express Office and general store. Purchased by the Atchison, Topeka and Santa Fe Railroad (ATSF) in 1905, the depot was shipping point for locally grown fruit, vegetables and flowers. Closed in 1960, the building was deeded to the city. It now serves as the Tourist Information Center to provide information and assistance to the many tourists who visit Carlsbad.

5.3.3.5 Resources Inventory

The CECP site and onsite linear facilities and the offsite reclaimed water line alignment were subject to a 100 percent cultural resources inventory. This inventory is based on both archive/background research and surface pedestrian survey. The results of the resource inventory are presented in the sections below. The area of potential effect (APE) for the project was determined in advance of field surveys in cooperation with Beverly Bastian of CEC on July 17, 2007 (see Figure 5.3-1 and Figure 5.3-2).

5.3.3.5.1 Archival Research

Staff of the California Historical Resources Information System (CHRIS) South Coastal Information Center conducted a file search for the CECP using a definition of a one-mile radius around the project site and associated laydown areas and at least a 0.25-mile radius around linear facilities as the “Project Area.”

According to information available in the CHRIS files, there have been 61 previous cultural resource surveys conducted within this Project Area (Table 5.3-2).

TABLE 5.3-2
Cultural Resources Reports Within One Mile of CECP

Report Authors	CHRIS Catalogue NADB Numbers
BRANDMAN 83+1	Citation not provided by SCIC
Brown (2001) –SCIC-BROWNJ 01-02	1125343
Byrd and O'Neil (2002) -SCIC-BYRD 02-15	1129361
Carrico and Phillips (1981)-SCIC-CARRICO 81+131	1120424
Caterino (2005) –SCIC-CATERINO 05-01	1129516
Crafts (1995) –SCIC-CRAFTS 95-20	1123329
Cupples (1976) –SCIC-CUPPLES 76-24	1120535
Dolan and Allen (1996) -SCIC-DOLAN 96+1	1123378
Dominici, Rosen, and White (2006) -SCIC-DOMINICI 06-65	1129996
Duke (2002) –SCIC-DUKE 02-197	1127960
*Eighmey and Wade (1990)	1121394
EIP 73 EIR+2	Citation not provided by SCIC
Elfend Associates (1984) -SCIC-ELFEND 84-2	1122016
Environmental Impact Profile (1974) -SCIC-EIP 74+1	1122088
**Gallegos (1986) -SCIC-GALLEGOS 86-20	1121028
GALLEGOS 98+191B	Citation not provided by SCIC
**Gallegos and Carrico (1984) -SCIC-GALLEGOS 84-7	1121055
Gallegos and Kyle (1992) -SCIC-GALLEGO 92+117	1122474
**Gallegos, Carrico, and Thesken-SCIC-GALLEGOS 83-8	1121054
Gallegos, Mitchell, Schroth, and Harris (1998) -SCIC-GALLEGOS 98+191C	1124093
Gallegos, Schroth, and Perry (1995) -SCIC-GALLEGOS 95+165	1123943
Greene and Smith (2006) -SCIC-SMITHB 06-535	1130655
Gross and Bull (1973) -SCIC-GROSS 73+13	1120980
Gross and Robbins-Wade (1987) -SCIC-GROSS 87-76	1129215
**Guerreo and Gallegos (2003) -SCIC-GUERREM 03-23	1129575
**Guerreo and Gallegos (2003) -SCIC-GUERRM 03-20	1129571
**Guerreo, Stropes, and Gallegos (2004) -SCIC-GUERREM 04-18	1129569
**Guerrero and Gallegos (2003) -SCIC-GUERREM 03-34	1129586
Hector (1981) –SCIC-HECTOR 81-12	1121122
Hector (1985) -SCIC-HECTOR 85-118	1128738
Hector and Wade (1986) -SCIC-HECTOR 86-19	1120681
HISTORI 113	1130847

TABLE 5.3-2
Cultural Resources Reports Within One Mile of CECP

Report Authors	CHRIS Catalogue NADB Numbers
**Kaldenberg (1976) -SCIC-KALDENBERG 76-17	1120716
KALDENBERG 75+36	Citation not provided by SCIC
Kyle (2002) -SCIC-KYLE 02-254	1129082
Kyle and Galegos (1998) -SCIC-KYLE 98-133	1127250
**Laylander and Becker (2004) -SCIC-LAYLAD 04-50	1129362
**Laylander and Palette (2005) -SCIC-LAYLAD 05-51	1129382
**McCorkle Apple (1987) -SCIC-MCCORKLE-APPLE 87-8	1121745
*Michael Brandman Associates, Inc. (1983)	1122045
MLA 93-45	Citation not provided by SCIC
**Mooney (1993) -SCIC-MOONEY 93-09	1124440
*Mooney and Cook (1993)	1122694
Pierson, Schiller, and Slater (1987) -SCIC-PIERSON 87-05	1122200
**Polan (1981) -SCIC-POLAN 81-24	1121752
Rosen (1999) -SCIC-ROSEN 99-80	1126629
**Rosen (2003) -SCIC-ROSEN 03-104	1128484
SCHROTH 96-12	Citation not provided by SCIC
Schroth, Harris, and Gallegos (1996) -SCIC-SCHROTH 96-11	1123272
Schroth, Schilz, and Cooley (1990) -SCIC-SCHROTH 90-25	1124367
Seeman (1982) -SCIC-SEEMAN 82-01	1124111
**Smallwood (2005) -SCIC-SMALLWOO 05-01	1130467
Smith (1998) -SCIC-SMITHB 98-330	1123586
**Strudwick (1993)-SCIC-STRUDWICK 93-3	1122691
**Strudwick (1994) STRUDWICK 94-05	1124806
Tank, Hogan, Smallwood, Jacquemain, and Shaker (2004) -SCIC-TANG 04-02	1129146
Ultra Systems, Inc. (1983) -SCIC-ULTRA 83-03	1128750
Wade (1987) -SCIC-WADE 87+13	1121665
Wade and Hector (1986) -SCIC-WADE 86-09	1121579
WESTEC Services, Inc. -SCIC-WESTEC 80-70 (1980)	1121984
**Woodward and Stammerjohan (1985) -SCIC-WOODWARD 85-04	1121638

Source: California Historical Resources Inventory System, South Coastal Information Center.

* Report contains overview information for project area

** Study area located within 0.25 mile of project area—copy provided in Confidential Appendix 5.3C

The record search indicated that there are 35 previously recorded properties within one mile of the Project Area (see Table 5.3-3). None of these previously recorded sites are situated within the CECP APE. Sites CA-SDI-6751, CA-SDI-6831, CA-SDI-16885 are located near the CECP site, but all fall outside the APE. All other previously recorded sites are located well outside of the CECP APE, and the project will have no effect on them.

TABLE 5.3-3
Summary of Previously Documented Sites within One-Mile of the Project Area

Site	Description	NRHP/CRHR Status	Effect
37-051583	Hammerstone	Not Evaluated	None
37-015184	One core	Not Evaluated	None
37-051585	Metate fragment	Not Evaluated	None
37-027648	Site record not provided by SCIC. Located well outside APE.	Unknown	None
37-027649	Site record not provided by SCIC. Located well outside APE.	Unknown	None
SDI-10024	Lit II burial. Bones were mineralized with calcite	Not Evaluated	None
SDI-10025	Flakes, cores, flake scrapers, manofragments, fire-cracked rock, shell (mostly pecten and chione)	Not Evaluated	None
SDI-10478	Shell, hammerstone, core, flakes	Not Evaluated	None
SDI-10671	Moderate shell and lithic scatter	Not Evaluated	None
SDI-10672	Manos, obsidian tool, scrapers, cores, metavolcanic, quartz, quartzite, obsidian, chert	Not Evaluated	None
SDI-10965	Cores, projectile points, biface/knives, scrapers, crescentics, drills, utilized flakes, numerous flakes and angular waste, choppers, hammerstones, cobble tools, round elongated stones, worked bone and obsidian	Not Evaluated	None
SDI-13008	Debitage, flakes, core, hammerstone, scraper, modified bone, recent historic	Not Evaluated	None
SDI-13076	<i>Chione Argopecten</i> shell,debitage, volcanics, metavolcanics, architectural glass, 0.22 caliber casings	Not Evaluated	None
SDI-13089	Fragments of <i>Chione</i> (80%) and <i>Argopecten</i> (20%) lie	Not Evaluated	None
SDI-13124	Flakes, cores, flake scrapers, mano fragments, fire-cracked rock, shell (mostly pecten and chione)	Not Evaluated	None
SDI-13701	Ground stone, cores, manos, flakes FAR, flakes/metavolcanic, porphyritic volcano quartz, mano fragment, split cobble core	Not Evaluated	None
SDI-14335	Manos, mano fragments,debitage, and ground stone fragments	Not Evaluated	None

TABLE 5.3-3
Summary of Previously Documented Sites within One-Mile of the Project Area

Site	Description	NRHP/CRHR Status	Effect
SDI-16885	Site record not provided by SCIC	Unknown	None
SDI-17078	Macine shell, fire-cracked rock, cobble test cores, cores, scrapers, hammerstones, and flakes	Not Evaluated	None
SDI-17411	Cobble hearths	Not Evaluated	None
SDI-17413	Shell scrapes, cobble scrape plane, flakes, pecten, chiohe, pismo	Not Evaluated	None
SDI-17414	Bottles, cans, salt glaze rocks, manos, chopper, flake scrapes, shell scrapes	Not Evaluated	None
SDI-17959	Invertebrate remains, flaked cobbles and FAR	Not Evaluated	None
SDI-17960	Site record not provided by SCIC	Unknown	None
SDI-209	Core, mano, hammerstone, flake	Not Evaluated	None
SDI-6134	Moderate shell and lithic scatter	Not Evaluated	None
SDI-6751	Site record not provided by SCIC	Unknown	None
SDI-6830	One scraper fragment, some flakes	Not Evaluated	None
SDI-6831	One composite hammer/pounder chopper, several cobble tools, some flakes	Not Evaluated	None
SDI-8794	Six Felsite flakes, two cobble manos, and fire affected rock	Not Evaluated	None
SDI-8795	Three wood beams, and a length of steel cable	Not Evaluated	None
SDI-8796	Felsite flakes, chert flakes, cobble manos, milling stone fragments, and fire affected rock	Not Evaluated	None
W-132A	Site record not provided by SCIC	—	None
400 Carlsbad Village Dr.	Historic Address	Not Evaluated	None
519 Chinquapin Ave.	Historic Address	Not Evaluated	None

Source: California Historical Resources Inventory System, South Coastal Information Center.

Three sites (CA-SDI-6751, CA-SDI-6831, CA-SDI-16885) have been previously documented adjacent to the CECP site. These sites are briefly described below.

CA-SDI-6751

This shell scatter site has been revisited several times since its initial recordation in 1978 (Frankin, 1978). The site record was most recently updated in 2004 (Guerrerro and Gallegos, 2004) where it was recorded as a “sparse and highly fragmented” shell scatter. The site is located entirely within the former ATSF railroad right-of-way (ROW) fence. In 1978 Frankin records the site as “already heavily impacted,” and located “on the railroad tracks.” In a 1993 revisit and site record update the site’s integrity is noted as “poor” (Pignoiolo and

Mealey, 1993). Based on review of the site record, it does not meet any eligibility criteria for nomination to either the National Register of Historic Places (NRHP) or the CRHR. No evidence of the site was observed outside of the railroad ROW within the CECF survey area. Moreover, the area between the railroad ROW and existing tanks 5, 6, and 7 consists of artificial fill material that has been graded and bermed from construction of the tanks and access roads that encircle them. No impact to site CA-SDI-6751 will occur.

CA-SDI-6831

CA-SDI- 6831 was also recorded as a shell scatter with associated sparse lithic material in 1978. The site measures 60 x 70 meters and is located northeast of tank 7, on the east side of the I-5 freeway. The site description is sparse in the existing record, but it is recorded at the time as being located in a plowed field planted in squash. Based on review of the site record, it would appear that what remains of the site has been heavily impacted by modern farming and that the site does not retain integrity. Based on review of the site record, it does not meet any eligibility criteria for nomination to either the NRHP or the CRHR. Regardless, the site sits well outside of the CECF site a on the east side of the I-5 freeway and will not be impacted.

CA-SDI-16885

This site is located west of the railroad and west of existing fuel oil tanks 2 and 3. Artifacts include core and core fragments, chipped stone, fire-affected rock, a hammerstone, and shell. The site was recently revisited and updated as part of archaeological monitoring of geotechnical boring activities in the area (Smallwood, 2005). The updated site record notes that the geotechnical investigations and historic photographs obtained at the Encinas Power Station provide evidence that the artifacts representing the site have been mechanically redeposited and are not in primary context and that the site does not exhibit contextual integrity. Based on review of the site record, it does not meet any eligibility criteria for nomination to either the NRHP or the CRHR. Moreover, the site sits well outside of the CECF area on the west side of the railroad and west of tanks 2 and 3 and will not be impacted.

5.3.3.5.2 Field Survey

Site Conditions

A cultural resources survey was conducted on July 10, 2007 by Clint Helton of CH2M HILL (Helton, 2007). Confidential Figure 5.3E-1 depicts the area inventoried for the CECF.

The CECF is located entirely within the existing Encina Power Station property. The existing Encina Power Station site has been heavily disturbed by the construction and operation of the existing plant and has been extensively graded and landscaped with non-native vegetation.

Extensive excavation, grading, and deposition of fill occurred in during the Encina Power Station's initial construction in the 1950's and proceeded during various stages of upgrades and expansions up to the present. Historic photographs show that prior to construction, the entire property was graded, leveled, fill brought in, a stream channelized, portions of the lagoon were dredged, and an underground water intake was built to bring water into the plant from the ocean (Jeff Bison, 2007, pers. comm.; Smallwood, 2005). Prior geotechnical evaluations within the Plant confirm the presence of fill to a depth of 10 feet.

Much of the ground surface within the CECP site was visible during survey, with the obvious exception of the existing storage tanks and their fill containment berm area. No historic or prehistoric resources were observed during the survey. Given the scale and scope of previous ground disturbance in the area by construction of the entire Encinas Power Station, including tanks 4, 5, 6, and 7, in addition to the large amounts of fill material used and the overall scope of ground disturbance at the site, archaeological sensitivity of the specific location of the CECP site is considered low. The laydown sites and reclaimed water line locations are comprised of fill material and are heavily disturbed from prior or current uses. The laydown areas will be used as a temporary staging area during construction and will have no permanent use or subsurface disturbance.

5.3.3.5.3 Archaeological Survey

Plant Site, Laydown Areas, and Reclaimed Water Line

For completeness, a pedestrian archaeological survey was conducted over all parts of the CECP site that were accessible (not covered by structures) using 10-meter parallel transects. Per the latest CEC *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007) CH2M HILL surveyed up to a 200-foot buffer around the project area and stopped at the ATSF/BNSF railroad ROW. In addition, a 50-foot buffer on the east side of the railroad following the reclaimed water line alignment south from the site to Cannon Road was surveyed. Ground visibility during the survey was very good. No prehistoric resources were observed as a result of the survey.

The CECP site has been heavily impacted by construction and operation of the existing Encina Power Station and construction of storage tanks 4, 5, 6, and 7. These tanks were constructed in the late 1960s and early 1970s to hold fuel for the Encina Power Station. They are sited in deep containment pits with sloped concrete walls. The ground surface is dominated by gravel and fill material and some asphalted roads surround the tanks, on top of the containment berms.

The laydown areas and reclaimed water line linear are both heavily disturbed, comprising graded and graveled ground surface with some low weeds and grasses present.

5.3.3.5.4 Architectural Survey

To assess potential impacts to the historic built environment, CH2M HILL commissioned JRP Historical Consulting (JRP) to conduct an architectural reconnaissance field survey to examine the Encina Power Station and the CECP site as a subset of the Encina Power Station and no less than one parcel's distance from the plant boundaries (JRP, 2007), per consultation with Beverly Bastian of CEC. JRP's technical report is provided in Appendix 5.3B. The specific area examined for architectural resources was determined in advance of field surveys in cooperation with Beverly Bastian of CEC on July 17, 2007.

The architectural study area contained a parcel northeast of the Encina Power Station containing Tanks 5, 6 and 7, the Cannon substation and a segment of the former Atchison, Topeka and Santa Fe Railway's "Surflines," now owned by North San Diego County Transit District. These are described below.

JRP Principal Rand F. Herbert provided project direction and management for the research and preparation of the report, directed the field work, and edited the report and forms. Mr. Herbert qualifies as a historian/architectural historian under the Secretary of Interior's

Professional Standards (as defined in 36 CFR Part 61). Mr. Herbert's resume is included in Appendix 5.3D.

Currently, the study area is primarily industrial, dominated by the Encina Power Station. A modern hotel, restaurant, and gas station complex is located immediately to the south of the study area. Agricultural fields are located east of the freeway, and a modern residential area is located to the south of Cannon Road, outside the study area.

Storage Tanks No. 5, 6, 7

Tanks 5, 6, and 7, were constructed in the late 1960s and early 1970s to hold fuel-oil for the Encina Power Station. They are sited in deep containment pits with sloped concrete walls. The three metal tanks are formed by corrugated metal walls. Rising approximately 35 feet, the tanks sit primarily on asphalt with some loose gravel. The tanks are less than fifty years old and do not require evaluation; they are also of common design for tanks of this kind and are thus not considered exceptionally significant.

Cannon Substation

Built in stages, construction of the existing Encina Power Station began in 1952. The Cannon Substation, located southeast of tanks 4, 5, 6, and 7, was built between 1976 and 1984. Prior to this period, this portion of the power station was used as a staging area for the construction of the tanks. The substation is less than fifty years old and do not require evaluation; they are also of common design for tanks of this kind and are thus not considered exceptionally significant.

North San Diego County Transit District Tracks / "Surfliner" Railroad

The former Atchison, Topeka and Santa Fe Railway's "Surfliner," now owned by North San Diego County Transit District is located west of the CEUP site and runs through the Encina Power Station. The rails have a standard gauge width of four feet, eight and half inches. The length of the rail line within the study area is approximately 4,000 feet. This segment of the rail line was recorded and evaluated by JRP (Appendix 5.3B).

The railroad segment does not appear to meet the criteria for listing in the NRHP, CRHR, or the San Diego County Register of Historical Resources, primarily because it lacks integrity of design, setting, materials, workmanship, feeling, and association for the potential period of significance of 1882, when it became the first rail line connecting San Diego creating a land boom that lasted until the Panic of 1893. Continued use and growth of the communities along the route have impacted the integrity of the line. At this time little remains of the 1882 track except the location. Moreover, the line will not be physically impacted by construction of the CECP. Therefore, no impact will occur.

None of the buildings or structures in the study area of the CECP appear to meet the criteria for listing in the CRHR. Therefore, none of the buildings in the study area appear to be historical resources for the purposes of CEQA. In addition the properties were also evaluated for inclusion in the San Diego County Register of Historical Resources as outlined in Ordinance 9493; San Diego Administrative Code Section 397.7.

The Cannon substation and tanks 5, 6 and 7 are associated with the Encina Power Station. The station was constructed to meet the growing post World War II demand for electricity. All of the major California power companies were building plants at this time. The plants, including Encina, were constructed within a short period of time with standardized plans.

None of the plants and their associated tanks and substations can be singled out as significant within the electrical system. As a result, Encina Power Station does not appear significant and the association of the tanks and substation with the station is not sufficient to grant them exceptional significance required for properties under 50 years old.

5.3.3.5.5 Native American Consultation

CH2M HILL contacted the Native American Heritage Commission (NAHC) by letter on June 19, 2007, to request information about traditional cultural properties such as cemeteries and sacred places in the project area. The NAHC responded on June 21, 2007, with a list of Native Americans interested in consulting on development projects. Each of these individuals/groups was contacted by letter on June 22, 2007. As of August 30, 2007, no responses have been received. Copies of these letters sent 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 failed to indicate the presence of Native American cultural resources in the immediate project area. The record search conducted at the South Coastal California Information Center of CHRIS for CH2M HILL also failed to indicate the presence of Native American traditional cultural properties.

5.3.3.5.6 Local Historical Societies

Four local Historical Societies were contacted on July 2, 2007. No additional historical resources were identified. A summary of these contacts is provided as part of Appendix 5.3A.

5.3.4 Environmental Analysis

This section describes the environmental impacts of CECP construction and operation. CH2M HILL conducted a complete survey of the project area and associated laydown areas. The analysis of cultural resources is the same for both the Single Phase and the Phased construction schedules (see Section 2.2.15), therefore a separate analysis for the two optional construction schedules is not required.

The literature search and pedestrian inventory failed to locate any significant prehistoric or historic sites within the CECP site including the plant site, laydown areas, and water line.

Previously recorded shell scatter CA-SDI-6751 is located directly west of the CECP site and over the course of multiple recordings has been documented as being contained entirely within the right-of-way fence of the ATSF railroad. The area between the railroad right of way fence and the existing storage tanks was examined and no evidence was observed of site CA-SDI-6751 in this area. It appears that the site was most likely destroyed by construction of the railroad, storage tanks, and other elements of the Encinas Power Station. Based on review of the site records, it does not meet any eligibility criteria for nomination to either the NRHP or the CRHR. No impact to site CA-SDI-6751 will occur.

Site CA-SDI- 6831 was also previously recorded near the CECP site, but is located well outside the APE, northeast of tank 7, on the east side of the I-5 freeway. Based on review of the site record, it does not meet any eligibility criteria for nomination to either the NRHP or the CRHR. No impact to site CA-SDI-6831 will occur.

Previously recorded site CA-SDI-16885 is located west of the ATSF railroad and west of existing fuel oil tanks 2 and 3, well outside the APE of the CECP site. Moreover, the site was revisited in 2005 and researchers concluded the site is a result of mechanical scattering of artifacts from construction of the Encinas Power Station and does not retain integrity. The site does not meet any eligibility criteria for nomination to either the NRHP or the CRHR and will not be impacted.

None of the buildings or structures in the study area of the CECP meet the criteria for listing in the CRHR. The ATSF railroad segment does not appear to meet the criteria for listing in the NRHP, CRHR, or the San Diego County Register of Historical Resources, primarily because it lacks integrity of design, setting, materials, workmanship, feeling, and association for its potential period of significance. Therefore, none of the buildings in the study area appear to be historical resources for the purposes of CEQA.

5.3.4.1 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:

- 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 CECP; contacts with all other interested agencies, Native American groups, and historic societies; and a complete archaeological field survey. These studies indicated that there are no significant prehistoric or historic archaeological remains, or traditional cultural properties in the CECP area of potential effects. Therefore, no impacts to cultural resources are expected to occur.

5.3.4.1.1 Construction Impacts

The literature search and pedestrian inventory have shown that there are no significant prehistoric or historic sites located within the CECP site or laydown areas, or along the project's linears. Therefore, the project is unlikely to have an adverse effect on significant historical or archaeological sites (that are eligible for listing in the California Register of Historical Resources). In addition, there are no known cemeteries in the project area that project construction might disturb.

It is unlikely, due to the extensive disturbance by construction of the Encina Power Station, and presence of artificial fill, that the project would encounter buried intact cultural resources that have not previously disturbed or destroyed.

5.3.4.1.2 Operation Impacts

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

5.3.5 Cumulative Effects

A cumulative effect 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 § 21083; Cal. Code Regs., Title 14, §§ 15064(h), 15065(c), 15130, and 15355). Cumulative projects are described in detail in Section 5.6, Land Use. Although environmental analyses for most of these projects have not been completed at the time of preparation of this AFC, 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.

5.3.6 Mitigation Measures

Although significant archaeological and historical sites were not found during survey for the CECF, it is possible that subsurface construction could encounter buried archaeological remains. For this reason, the CECF will include the following measures to mitigate any potential adverse impacts that could occur if there were an inadvertent discovery of buried cultural resources.

5.3.6.1 Cult 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 CECF 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). 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.

5.3.6.2 Cult 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.

5.3.6.3 Cult 3: Monitoring

The Applicant will retain a qualified archaeologist to monitor excavations during the project's construction phase. 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.

5.3.6.4 Cult 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 as well as any piles of dirt or rock spoil from that area. Construction will not take place within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can inspect and evaluate the find.

5.3.6.5 Cult 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 locational information to the South Coastal Information Center of the California Historic Resources Information System.

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.

5.3.6.6 Cult 6: Mitigation Planning

If the CRS, CEC staff, and CPM determine that the find is significant, the CRS will prepare and carry out 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 the project owner and the CPM can authorize resuming construction.

5.3.6.7 Cult 7: Curation

The CRS will arrange for curation of archaeological materials collected during an archaeological data recovery mitigation program. Curation will be 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.

5.3.6.8 Cult 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.

5.3.6.9 Cult 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 County Coroner. If the Coroner determines that the find is Native American, he/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.

5.3.7 Proposed Conditions of Certification

Taken together with the mitigation measures outlined in Section 5.3.6, the supplemental standard CEC conditions of certification listed below will mitigate any potential adverse impacts to cultural resources from the CECP.

5.3.7.1 Maps and Drawings

Prior to the start of project construction, the Applicant shall provide the designated cultural resource specialist and the CPM with maps and drawings showing the final project design and site layout, and the final alignment of all linear facilities. The routes for the linear facilities shall be provided on 7.5 minute quad maps, showing post mile markers (including "tic marks" for tenths of a mile), final center lines and right-of-way boundaries, and the location of all the various areas where surface disturbance may be associated with project-related access roads, storage yards, laydown sites, pull sites, pump or pressure stations, switchyards, electrical tower or pole footings, and any other project components.

5.3.7.2 Cultural Resources Monitoring and Mitigation Plan

Prior to the start of project construction, the designated cultural resources specialist shall prepare, and the Applicant shall submit to the CPM for review and written approval, a Cultural Resource Monitoring and Mitigation Plan to identify general and specific measures to minimize potential impacts to sensitive cultural resources.

5.3.7.3 Scheduling and Reporting

Throughout the project construction period, the Applicant shall provide the designated cultural resource specialist and the CPM with a current schedule of anticipated monthly project activity (presented on a week-by-week basis) and a map indicating the area(s) where construction activities will occur. The designated cultural resource specialist shall consult daily with the project superintendent or construction field manager to confirm the area(s) to be worked on the next day(s).

5.3.7.4 Monitoring Records

Throughout the pre-construction reconnaissance surveys and the construction monitoring and mitigation phases of the project, the designated cultural resource specialist shall keep a daily log of any resource finds and the progress or status of the resource monitoring, mitigation, preparation, identification, and analytical work being conducted for the project. The designated specialist shall prepare a weekly summary report on the progress or status of cultural resource-related activities. The weekly summary reports are to be filed with the project owner for inclusion in the Monthly Compliance Report to the CPM. The designated resource specialist may informally discuss the cultural resource monitoring and mitigation activities with Commission technical staff.

5.3.7.5 Final Cultural Resources Reporting

The Applicant shall submit an original, an original-quality copy, or a computer disc copy of the CPM-approved Final Cultural Resources Report to the public institution receiving the recovered data and materials for curation, to the State Historic Preservation Officer (SHPO), and to the appropriate regional archaeological information center(s). If the final report is submitted to these entities on a computer disc, the disc files must meet SHPO requirements for format and content. A legible copy of the approved final report shall be filed with the CEC CPM, with a request for confidentiality if needed to protect any sensitive resources or sites.

5.3.8 Involved Agencies and Agency Contacts

Table 5.3-4 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 5.3-4
Agency Contacts for Cultural Resources

Issue	Contact
Native American traditional cultural properties	Dave Singleton Associate Governmental Program Analyst NAHC (916) 653-4082
Federal agency NHPA Section 106 compliance	Milford Wayne Donaldson State Historic Preservation Officer Office of Historic Preservation (916) 653-6624

5.3.9 Permits Required and Permit Schedule

Other than certification by the CEC, no state, federal, or local permits are required for the project for the management of cultural resources. Consultation with the SHPO and Advisory Council on Historic Preservation would be required under Section 106 of the NHPA 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 were likely to be affected by the project.

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LEGEND

- AREA OF POTENTIAL EFFECT
- PROJECT SITE BOUNDARY
- RECLAIMED WATER LINE

0 1,000 2,000
 FEET
 1 INCH = 2000 FEET

3

FIGURE 5.3-2
CULTURAL RESOURCES
SURVEY AREA
 CARLSBAD ENERGY CENTER PROJECT
 CARLSBAD, CALIFORNIA