

## D.4 Cultural Resources

This section evaluates the potential for the Proposed Project and alternatives to impact both previously identified and unanticipated cultural resources in the project area during construction and operation. Background information for the project area is provided (Section D.4.1) along with a list of applicable regulations (Section D.4.2). Potential impacts and mitigation measures for the Proposed Project are outlined in Section D.4.3. Project alternatives are discussed in Section D.4.4, followed by consideration of the No Project Alternative (Section D.4.5). The mitigation recommendations and the monitoring, compliance, and reporting program for cultural resources are presented in Section D.4.6.

Information for the Proposed Project and Applicant-proposed alternatives compiled in the following section was gathered from the Proponent's Environmental Assessment, Chapter 5 (SDG&E, 2002), and the results of cultural resources field surveys conducted by RECON Environmental, Inc. (RECON) (Collett and Cheever, 2002) and supporting documents. These include SDG&E Supplemental Application No. 2, SDG&E responses to data requests from Aspen Environmental Group (SDG&E, 2003a, 2003b, and 2003c), and cultural resource location maps (SDG&E, 2003d). Mark Chomyn of SDG&E completed Native American consultation and collected information on sacred lands. The data-collection methods for both studies included the following:

- Records searches conducted at the South Coastal Information Center (SCIC) of the California Historic Resource Information System (CHRIS) and at the San Diego Museum of Man (SDMM). The records searches consisted of reviews of relevant historic maps, excavation and survey reports, and archaeological site records.
- The Native American Heritage Commission (NAHC) was contacted for information on sacred lands and for a contact list of local tribal representatives or most likely descendants (MLDs).
- Field surveys were conducted in order to verify the location of any previously identified cultural resources and to cover previously unsurveyed lands within the boundaries of the Proposed Project. Survey areas included substation properties, the existing ROW (see Table B-2 for ROW widths), and a 100-foot-wide corridor for all access roads located outside the ROW. Field surveys are useful for identifying aboveground or surface cultural resources and for identifying high-probability areas. However, negative pedestrian survey results do not preclude the possibility that buried archaeological deposits could be discovered. Intensive pedestrian field surveys were conducted by RECON (Collett and Cheever, 2002).

Information gathered from archival research and field surveys was also used to assess the potential for encountering previously unrecorded resources in the project area. Significant prehistoric sites are known to occur in the project area and buried sites may be present.

Native American consultation letters were sent out on May 2002 (see Appendix 6), to NAHC-listed San Diego County contacts requesting information on any sacred lands or sites within the Proposed Project and alternative routes. A first round of follow-up phone calls was made on November 10 and 18, 2003. These were followed by a second round of follow-up phone calls made on December 18, 2003. No additional information on sacred sites was obtained as a result of consultation. NAHC correspondence letters and table of contacts and comments (which includes Native American comments) are presented in Appendix F.

## D.4.1 Environmental Setting for the Proposed Project

**Natural Setting.** The project area lies within the Peninsular Range province, a well-defined geologic and physiographic unit that occupies the southwestern corner of California, as well as the Baja California peninsula. This province is characterized by northwesterly trending ranges and valleys that abruptly terminate on the north at the east-west oriented Transverse Ranges. A large part of the province is submerged beneath the Pacific Ocean where it is represented by several of the southern Channel Islands. The rocks of the Peninsular Range province consist of a range of sedimentary, volcanic, and metamorphic rock types. The sedimentary strata are highly clastic, containing a wide range of rock inclusions. Volcanic rocks include the Santiago Peak volcanics and rocks of the southern California batholith, among others (Jahns, 1954).

The Proposed Project traverses diverse environments as it parallels the San Diego River valley and crosses several major streams, including Sycamore Creek, Los Coches Creek, and Forrester Creek. Along most of its route, though, the proposed transmission line is confined to the steep slopes and narrow ridges typical of the highlands east of San Diego Bay. In these areas the rocks of the southern California batholith are conspicuous as boulder outcrops of granodiorite.

This topographic diversity is also reflected in the biological communities present. Vegetation in the project vicinity is varied, reflecting a complex interaction of soils, geology, topography, and hydrology. Plants typical of the coastal sage scrub and chaparral plant communities (Munz, 1974) blanket many of the slopes, whereas riparian species grow along the floors of the larger drainage channels. These plant communities provide habitat for a range of small- to medium-sized animals.

Natural habitats in the project vicinity have undergone significant alteration as a result of modern encroachment. Livestock grazing, orchard terracing, and other agricultural activities have altered the native plant communities. Quarrying and other mining activities, as well as modern development have disturbed large areas. Extensive areas of native landscape remain in the more rugged portions of the project vicinity.

**Ethnographic Background.** The project area is located in the southwestern portion of San Diego County within the historical territory of the Kumeyaay people. Kumeyaay is a native term referring to all Yuman-speaking peoples living in the area from the San Dieguito River south to the Sierra Juarez in Baja California and roughly west of present day Salton Sea (May, 1975). Prior to European contact, Kumeyaay territory may have extended as far north as the San Luis Rey River (Luomala, 1978). To the north of the Kumeyaay live the Takic-speaking Luiseño and Cahuilla. To the east and south are other peoples who speak a variety of distinct languages belonging to the Yuman language family (Kroeber, 1976).

The Kumeyaay have been referred to by a confusing array of names. The standard practice during the Spanish colonial era in California was to name all native peoples within the sphere of influence of a particular mission district after that mission; hence, the native people living around mission San Diego de Alcalá came to be known as Diegueño. Because this nomenclature generally ignored traditional socio-political divisions, anthropologists later began to apply the terms Tipai and Ipai to distinguish between two culturally and linguistically distinct groups. More recent ethnographic data and historic records indicate that the people refer to themselves as Kumeyaay (Luomala, 1978; May, 1975; Shipek, 1982) and this is now the most widely accepted name.

On the basis of linguistic and archaeological evidence, it has been suggested that the ancestors of the present-day Kumeyaay arrived in this part of California sometime between 1000 B.C. and A.D. 1000. Adding new cultural traditions to the earlier patterns, the ancestral Kumeyaay seem to have assimilated with the earlier inhabitants rather than displaced them.

The Kumeyaay were organized socio-politically into autonomous bands, each controlling from 10 to 30 miles of a drainage (Shipek, 1982). Each band usually occupied a main village and several satellite habitations. These settlements were temporary, though, as the community would disband seasonally into smaller groups, which would establish camps to gather, process, and cache seasonally available resources. Seasonal movements were geared toward following the ripening of major plants from canyon floor to the higher mountain slopes. During the winter months, the band would typically aggregate back to the main village (Luomala, 1978).

The complexity of Kumeyaay residential structures varied according to locality and need. In summer camps, for instance, a windbreak or rockshelter might be sufficient protection from the elements. In winter, however, more substantial structures might be needed, in which case the Kumeyaay typically built thatch-covered dome or gable houses.

Leadership of each band was invested in a clan chief and at least one assistant. Positions were generally inherited, although a chief could be selected by consensus. Chiefs typically derived their authority through strength of personality and social skills rather than by force, as they had no real coercive powers. The duties of the chief included resolving disputes, advising about marriages, appointing leaders for important gathering expeditions, and directing clan and interclan ceremonies (Luomala, 1978).

The Kumeyaay practiced a fairly typical California hunting and gathering subsistence regime based on a variety of locally abundant terrestrial and aquatic resources. The Kumeyaay diet was heavily dependent on harvesting wild plant foods, with a strong emphasis on acorns. An abundance of other plant food, including many different kinds of seeds, bulbs, and other plants, rounded out the diet. Meat was procured through hunting of small game, including rabbits, squirrels, and various reptiles. Many of these animals were captured with nets or by hand. Larger game, such as deer, was taken with bow and arrow, but probably did not figure prominently in the diet. Besides abundant plants, the inhabitants living in the coastal zone had access to rich marine environments which provided abundant shellfish, fish, and sea mammals (Luomala, 1978).

Interaction with neighboring tribes was maintained through extensive trade networks involving the movement of goods and information from diverse ecological zones. The San Diego-area Kumeyaay appear to have maintained stronger trade relationships with their neighbors to the east than with groups to the north and south, as evidenced by a lively trade between the seacoast and inland areas as far east as the Colorado River (Luomala, 1978). Acorns, dried seafood, ornamental marine shell, and other materials moved eastward from the coast and uplands, and salt, gourd seeds, and mesquite beans moved in the opposite direction (Davis, 1974:20; Luomala, 1978).

Contact between the Kumeyaay and Europeans began in 1542 when Juan Rodríguez Cabrillo landed the first Spanish expedition in San Diego. Sustained cultural interaction did not develop, however, until the founding of Mission San Diego Alcalá in 1769. Although the Kumeyaay culture was not as severely impacted by Spanish colonization as some other California tribes, its socio-political structure was drastically disrupted during the Mission period and later. Those Kumeyaay living closest to the mission were hardest hit by European civilization, whereas groups living in the mountains were less traumatized by cultural interaction and preserved more of their culture longer (Luomala, 1978).

By the end of the nineteenth century, most Kumeyaay had been disenfranchised from their lands and relegated either to reservations or, for those who remained living in mainstream Euroamerican society, to rural areas or the edges of small towns on land that whites did not want. Employment opportunities were few. Most were poorly paid and labored in mines, on ranches, or in town, although some still supplemented their income with traditional subsistence activities (Chartkoff and Chartkoff, 1984).

Throughout the twentieth century, the Kumeyaay have struggled and worked toward maintaining their autonomy and sovereignty. Today their culture is thriving and the Kumeyaay are represented by federally recognized tribes with reservations throughout San Diego County. Currently about 20,000 Kumeyaay descendants live in San Diego County, about 10 percent of whom live on its 18 reservations.

**Prehistoric Background.** Southern San Diego County contains archaeological evidence of human use and occupation that spans the known periods of prehistory. The earliest sites are from the early Holocene and are known as the San Dieguito complex (9,000–7,500 years ago), so-named because the culture was first defined at a site along San Dieguito River, about 20 miles north of the current project area. The archaeological remains of this period consist of large, stemmed projectile points and finely made scraping and chopping tools, which were used for hunting and processing large game animals (Moratto, 1984).

The La Jolla complex (7,500–2,000 years ago) followed the San Dieguito complex. La Jolla sites are recognized by abundant millstone assemblages in shell middens often located near lagoons and sloughs. This period brought a shift from hunting to a more generalized subsistence strategy relying on a broader range of resources, including plant, shellfish, and small game. During this period, the number of sites increased from the earlier San Dieguito, and sites are located across a greater range of environmental zones.

The origin of the La Jolla complex is unclear. Some researchers believe that it developed out of the earlier San Dieguito complex, whereas others feel that it may have coexisted with San Dieguito, and merely represent exploitation of distinct environments by the same culture. Regardless, the remains of these two complexes indicate very different subsistence strategies, with the San Dieguito complex focusing on hunting and the La Jolla complex based on a broader-based foraging strategy. Interestingly, some of the oldest ceramics in America, in the form of figurines, have been recovered from La Jolla sites in neighboring Orange County. Regional variants of the San Dieguito and La Jolla complexes are found in interior regions of San Diego County. The Pauma complex, originally believed to be a distinct archaeological culture, is more likely a regional variant of the better-known La Jolla complex.

As elsewhere during late prehistory in southwestern California, the Yuman complex (1,300–200 years ago) was a time of cultural transformation. Beginning about 1,000 years ago, Yuman-speaking groups moved into the San Diego area. These later populations are recognized by distinctive small projectile points, ceramic vessels, and an increase in the use of mortars. The acorn became an increasingly important component of the diet, although subsistence pursuits from earlier periods continued. The number of Yuman-complex sites dramatically increases over the earlier periods.

Although there are differences in the settlement patterns noted for each successive period, habitation sites from all periods are most commonly found near lagoons and the open coast, or along stream channels in the valleys. In general, the coastal zone and locations at the mouth of canyons or at the confluence of streams are archaeologically sensitive and likely to contain sites ranging from small activity areas to habitation sites. Smaller special-use sites are found scattered across all environmental

zones, particularly near water sources. Extensive prehistoric quarries are known from the general region, and milling features on bedrock outcrops are nearly ubiquitous in the inland portions of the County. Rock art sites have also been recorded in the area.

**Historical Background.** The historical period began in the San Diego area with the voyage of Juan Rodríguez Cabrillo, who landed near Point Loma on September 28, 1542. Although several expeditions were later sent to explore the Alta California coast, for nearly two centuries following Cabrillo's voyage the Spanish government showed little interest in the region, focusing instead on the Mexican mainland and on Baja California. In the 1760s, however, spurred on by the threat to Spanish holdings in Alta California by southward expansion of the Russian sphere of influence, the Spanish government began planning for the colonization of Alta California (Rolle, 1978).

The Spanish originally planned to establish their first settlement in Alta California at San Diego using a four-pronged expedition. Two groups would arrive by sea and two by land. The various expeditions departed from their respective locations throughout the first half of 1769. The two ships and both over-land parties eventually reached San Diego. A third supply ship was dispatched to join the rest of the expedition, but it was apparently lost at sea. Meeting in San Diego, the colonists succeeded in establishing Mission San Diego de Alcalá on July 16, 1769 (Rolle, 1978). For the next 50 years, mission influence grew in southern California: Mission San Luis Rey de Francia, located north of San Diego in present-day Oceanside, was established on June 13, 1798 (James, 1912), and the assistance of Santa Ysabel and a dam and flume in Mission Gorge constructed around 1818 (Collett and Cheever, 2002; Luomala, 1978;). The mission economy was based on farming the fertile river valleys and open-range ranching over vast expanses of territory.

As part of their colonization goals, the church hierarchy felt an obligation to convert the native peoples to Christianity, and the church worked diligently at converting the local populations. The mission priests gathered as many Kumeyaay into the mission as possible. Once there, the neophytes essentially were held captive while they received religious instructions and provided free labor for the mission, often forcibly. The effects of mission influence upon the local native population were devastating. The reorganization of their traditional life-style alienated them from their previous subsistence patterns and social customs. European diseases for which the Kumeyaay had no immunities reached epidemic proportions and many died.

Mexican independence from Spain in 1821 was followed by secularization of the California missions in 1832. Between 1833 and 1845, the newly formed Mexican government began to divide up the immense church holdings into land grants. By the 1840s, ranches, farms, and dairies were being established throughout the El Cajon Valley, along the Sweetwater River, and in nearby areas. The Proposed Project crosses several Mexican land grants, including Jamacha, El Cajon, Cañada de Los Coches, and Ex Mission San Diego (Collett and Cheever, 2002).

The rancho era in California was short-lived and in 1848 Mexico ceded California to the United States under the Treaty of Guadalupe Hidalgo. Growth of the region was comparatively rapid after succession. Subsequent gold rushes, land booms, and transportation development all played a part in attracting settlers to the area. San Diego County was created in 1850, the same year that the City of San Diego was incorporated. Over the next 20 years the County's population increased six-fold and the City population more than tripled (San Diego Historical Society, 2004). By the late 1800s, the County was still growing and a number of outlying communities developed around the old ranchos and land grants (Collett and Cheever, 2002).

Throughout the early twentieth century most of San Diego County remained mostly rural. Like most of southern California, this area changed following World War II when the pace of migration and growth quickened. Today, western San Diego County has transformed into a burgeoning metropolis with unprecedented urban expansion. This rapid growth has put increased demands on the existing infrastructure and utility systems, and it is in this context that the Proposed Project is being developed.

**Identified Cultural Resources.** In all, 58 cultural resources have been recorded in the Proposed Project area (Table D.4-1). All but one of these are either prehistoric or historical-period archaeological sites. Of the 58 cultural resources identified in this transmission line corridor, 11 are classified as habitation sites. No Native American sacred sites are known to exist in the project area and none are expected. Fifteen resources have been determined to be ineligible for the CRHR or to be nonunique archaeological resources (Table D.4-2). Of the remaining 43 cultural resources in the boundaries of the Proposed Project, four are historical resources and 39 are potential historical resources.

**Table D.4-1. Cultural Resources Identified in the Miguel-Mission Project ROW**

<b>Resource*</b>	<b>Description</b>	<b>CRHR Eligibility Status</b>	<b>Segment</b>
HP-1	Isolated artifact	Not eligible	Unknown
HP-2	Isolated artifact	Not eligible	Unknown
CA-SDI-490	Isolated artifact	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-709	Isolated artifact	Not eligible	Fanita Junction to Mission Substation
CA-SDI-4353	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4515	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4526	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4528/H	Lithic scatter/historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4529	Artifact scatter	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-4533	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4607	Habitation site	Potentially eligible	Fanita Junction to Mission Substation
CA-SDI-4650	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4652	Artifact scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4758H	Historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4881	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4883	Artifact scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4884H	Historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4885	Artifact scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4892	Isolated artifact	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-4893	Isolated artifact	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-4894	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4895	Rock feature	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4896	Rock feature	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4897, Locus A	Artifact scatter	Eligible	Miguel Substation to Fanita Junction
CA-SDI-4897, Locus E	Artifact scatter/historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4897, Locus F	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4897	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4898	Lithic scatter	Eligible	Miguel Substation to Fanita Junction
CA-SDI-4899, Locus A	Artifact scatter	Eligible	Miguel Substation to Fanita Junction
CA-SDI-4899, Locus C	Lithic scatter	Eligible	Miguel Substation to Fanita Junction
CA-SDI-4912	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-9256	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-9257	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction

**Table D.4-1. Cultural Resources Identified in the Miguel-Mission Project ROW**

Resource*	Description	CRHR Eligibility Status	Segment
CA-SDI-9900	Habitation site	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-10648	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-11284	Artifact scatter	Potentially eligible	Fanita Junction to Mission Substation
CA-SDI-11285	Habitation site	Potentially eligible	Fanita Junction to Mission Substation
CA-SDI-12018	Artifact scatter	Not eligible	Fanita Junction to Mission Substation
CA-SDI-12055	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-12056H	Historic structures, scatter	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12067	Quarry	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12072	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-12073	Artifact scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-12099	Artifact scatter	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12244	Milling site	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12246	Milling site	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12295	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-12827H	Historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-13188	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-13576	Lithic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-13593	Artifact scatter	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-13622/H	Milling site/historic scatter	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-13652	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-14031	Habitation site	Potentially eligible	Fanita Junction to Mission Substation
CA-SDI-16401	Milling site	Potentially eligible	Miguel Substation to Fanita Junction
SDM-W- 0924	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
SDM-W-1095	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
SDM-W-1714	Lithic scatter	Potentially eligible	Fanita Junction to Mission Substation

Source: Collett and Cheever, 2002; SDG&E, 2003c.

\* H suffix denotes historical-period resource. /H suffix denotes prehistoric site with historical-period component.

**Table D.4-2. Cultural Resources Determined Not Eligible for the CRHR**

Resource*	Description	Eligibility Justification
HP-1	Isolated artifact	Isolated artifact
HP-2	Isolated artifact	Isolated artifact
CA-SDI-490	Isolated artifact	Isolated artifact
CA-SDI-709	Isolated artifact	Isolated artifact
CA-SDI-4529	Artifact scatter	Destroyed by development
CA-SDI-4892	Isolated artifact	Isolated artifact
CA-SDI-4893	Isolated artifact	Isolated artifact
CA-SDI-9900	Habitation site	Formal evaluation
CA-SDI-12018	Artifact scatter	Destroyed by development
CA-SDI-12056H	Historic structures, scatter	Destroyed by development
CA-SDI-12067	Quarry	Destroyed by development
CA-SDI-12099	Artifact scatter	Formal evaluation
CA-SDI-12244	Milling site	Destroyed by development
CA-SDI-12246	Milling site	Formal evaluation
CA-SDI-13593	Artifact scatter	Destroyed by development

Source: Collett and Cheever, 2002; SDG&E, 2003c.

\* H suffix denotes historical-period resource.

## D.4.2 Applicable Regulations, Plans, and Standards

The Proposed Project is being evaluated under the California Environmental Quality Act (CEQA) by the California Public Utilities Commission as the designated lead agency. CEQA requires a lead agency to determine whether a Proposed Project may have a significant effect on the environment and if any such effects can be feasibly eliminated by pursuing an alternative course of action or mitigated to less than significant levels. CEQA recognizes that historical resources are part of the environment and that a project that “may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment” (PRC 21084.1). For purposes of CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed or eligible for listing in the California Register of Historical Resources (CRHR) (PRC 21084.1). Because historic properties designated under any municipal or county ordinance and determined significant by the State Historical Resources Commission may be eligible for the CRHR (PRC 5024.1(e)(5)), portions of the Proposed Project may be subject to the Historical Resources Guidelines of the City of San Diego Land Development Code and San Diego County ordinances regarding cultural resources. CEQA also requires that the lead agency determine whether the project will have a significant effect on unique archaeological resources that are not eligible for listing in the CRHR, and to avoid unique archaeological resources when feasible or mitigate any effects to less than significant levels (PRC 21083.2).

The following State public resource codes and CEQA regulations apply:

- **California Environmental Quality Act: Public Resources Code Sections 5020.1, 5024.1, 21083.2, 21084.1, et seq.** requires analysis of potential environmental impacts of Proposed Projects and application of feasible mitigation measures.
- **Title 14, Public Resources Code, Section 5020.1** defines several terms, including the following:
  - (f) “DPR Form 523” means the Department of Parks and Recreation Historic Resources Inventory Form;
  - (i) “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California;
  - (j) “local register of historical resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution;
  - (l) “National Register of Historic Places” means the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture as authorized by the National Historic Preservation Act of 1966 (Title 16 United States Code Section 470 et seq.); and
  - (q) “substantial adverse change” means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired.
- **Title 14, Public Resources Code, Section 5024.1** establishes a California Register of Historical Resources, sets forth criteria to determine significance, defines eligible properties, and lists nomination procedures.
- **Title 14, Public Resources Code, Section 21083.2** defines “unique and non-unique archaeological resources” and states that the lead agency determines whether a project may have a significant effect on unique archaeological resources. If a potential for damage to unique archaeological resources can be demonstrated, such resources must be avoided. If avoidance is not feasible, mitigation measures shall be required. This section deals with a number of related cultural resources issues, including: excavation as mitigation; mitigation costs; time frames for excavation; and mitigation of unexpected resources.

- **Title 14, Public Resources Code, Section 21084.1** defines “historical resource” and states that a project may have a significant effect on the environment if it causes a substantial change in the significance of a historical resource.
- **Title 14, Public Resources Code, Section 5097.5** states that any unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority or public corporation, or any agency thereof.
- **Title 14, Public Resources Code, Section 5097.98** prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn, and sets penalties.
- **Guidelines for the Implementation of the California Environmental Quality Act, Section 15064.5** addresses effects on historic and prehistoric archaeological resources in response to problems that have arisen in the application of CEQA to these resources.
- **Guidelines for the Implementation of the California Environmental Quality Act, Section 15126.4** discusses mitigation measures to minimize significant effects to cultural resources. Mitigation measures related to impacts on historical resources include data recovery through excavation when it is the only feasible mitigation available.
- **Title 14, Penal Code, Section 622.5** asserts that anyone who damages an item of archaeological or historic interest is guilty of a misdemeanor.
- **California Environmental Quality Act Guidelines: California Code of Regulations, Sections 15000 et seq., Appendix G(j)** defines a potentially significant environmental effect as occurring when the Proposed Project will “. . . disrupt or adversely affect . . . an archaeological site, except as part of a scientific study.”

Any portions of the Proposed Project located in the City of San Diego are subject to the Historical Resources Guidelines of the City Land Development Code for preserving, avoiding, and mitigating damage to historic resources. The following City of San Diego municipal codes apply:

- **Municipal Code Chapter 11, Article 3, Division 1** defines several terms including the following: “Designated historical resource” means any historical resource, important archaeological site, or traditional cultural property which is designated by the Historical Resource Board, is included in the City of San Diego Historical Resources Board Register, or is eligible for listing in the California Register of Historical Resources or the National Register of Historic Places.
- **Municipal Code Chapter 12, Article 3, Division 2** establishes procedures to identify and designate for preservation those historical resources that embody the special elements of the City’s heritage.
- **Municipal Code Chapter 14, Article 3, Division 2** establishes regulations to protect, preserve, and restore the historical resources of San Diego.
- **Municipal Code Chapter 14, Article 3, Division 2, Section 143.0253** requires that important archaeological sites shall be preserved in their natural state. If necessary to achieve a reasonable development area, up to 25 percent encroachment into any important archaeological site is allowed. Under specific conditions, a total encroachment of 40 percent into important archaeological sites is permitted for essential public service projects. Any encroachment into an important archaeological site shall include measures to mitigate for the partial loss of the site. Mitigation measures shall include preservation through avoidance of the remaining portion of the site and implementation of a research design and excavation program that recovers the scientific value of the portion of the site that would be lost due to encroachment.

Those portions of the Proposed Project located in unincorporated areas may also be subject to several San Diego County ordinances specifically dealing with cultural resources. The following San Diego County ordinances apply:

- **San Diego County Administrative Code, Section 396.7** establishes the San Diego County Local Register of Historical Resources; defines eligible properties, sets forth criteria to determine significance, and lists nomination procedures.
- **The Resource Protection Ordinance** requires a resource protection study to protect “environmentally sensitive lands” including significant prehistoric and historic sites. The ordinance defines significant cultural resources and prohibits damaging such resources. The ordinance also provides exemptions for essential public facilities, which are defined as “any structure or improvement necessary for the provision of public services, which must be located in the particular location to serve its purpose and for which no less environmentally damaging location, alignment, or non-structural alternative exists.”

### D.4.3 Environmental Impacts and Mitigation Measures

#### D.4.3.1 Definition and Use of Significance Criteria

CEQA states that a project that may cause a substantial adverse change in the significance of a historical resource or that may have a significant effect on a unique archaeological resource may have a significant effect on the environment. The lead agency is required to determine whether a Proposed Project may adversely affect historical resources or unique archaeological resources. Historical resources are defined as cultural resources included in or eligible for listing in the CRHR (CCR 15064.5). Unique archaeological resources are defined as artifacts, objects, or sites that contain information that can answer important scientific research question, has a special and particular quality, or is directly associated with an important prehistoric or historic event or person (PRC 21083.2(g)).

Under CEQA the project would have a significant effect on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource by demolishing or materially altering the characteristics of a historical resource that justify its eligibility for inclusion in the CRHR (CCR 15064.5); or
- Cause a substantial adverse change in the significance of a unique archaeological resource by damaging the resource (CCR 15064.5; PRC 21083.2).

Significant effects on historical resources or unique archaeological resources can be eliminated by pursuing an alternative course of action or mitigated to less than significant levels. Preservation in-place is the preferred manner for mitigating impacts to archaeological resources (CCR 15126.4(b)(3)(A)). If preservation in-place is not feasible, data recovery excavation is an acceptable alternative pursuant to the provisions of CCR 15126.4(b)(3)(C).

#### D.4.3.2 Project Protocols

The Applicant Proposed Project Protocols related to cultural resources are shown in Table D.4-3. These were outlined in the Proponent’s Environmental Assessment (PEA) (SDG&E, 2002) for reducing potential impacts to cultural resources from construction. These Project Protocols are considered part of the project description when evaluating potential impacts from the Proposed Project. The key elements of the Project Protocols are:

- Avoidance of cultural resources when feasible (PP-39, PP-40, PP-41, and PP-53)
- Monitoring construction activities (PP-53)
- Evaluation of cultural resources (PP-53)
- Mitigation of project effects when avoidance is not feasible (PP-39, PP-41, and PP-53)
- Proper treatment of human remains in accordance with federal, State, and local laws, as appropriate (PP-63)
- Providing cultural resources awareness training to project personnel (PP-7).

Although the Project Protocols attempt to anticipate and prevent adverse project effects to cultural resources, they are unclear and lack the specificity to be properly implemented. In addition, some protocols omit crucial steps in the established procedures regarding the treatment of cultural resources. The required treatment of cultural resources under CEQA is:

- Identification
- Avoidance, if feasible
- Evaluation of resources that cannot be feasibly avoided
- Assessment of project effects on historical resources or unique archaeological resources
- Mitigation of adverse project effects on historical resources or unique archaeological resources.

The mitigation measures presented in this EIR, as appropriate, bring the Project Protocols into compliance with established procedures for the treatment of cultural resources.

**Table D.4-3. Project Protocols – Cultural Resources**

PP No.	Description
7	Prior to construction, all SDG&E, contractor, and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the Protocols and to comply with the applicable environmental laws and regulations including, without limitation, hazardous materials spill prevention and response measures, erosion control, dust suppression, and appropriate wildlife avoidance, impact minimization procedures, and Stormwater Pollution Prevention Plan (SWPPP) BMPs. To assist in this effort, the training would address: (a) federal, state, local, and tribal laws regarding antiquities, fossils, plants, and wildlife, including collection and removal; (b) the importance of these resources and the purpose and necessity of protecting them; and (c) methods for protecting sensitive cultural, paleontological, and ecological resources.
39	To the extent feasible, where the construction of access roads would disturb sensitive features, the route of the access road would be adjusted to avoid such impacts. Examples of sensitive features include, without limitation, cultural sites, identified habitats of endangered species, and streambeds. As another alternative, construction and maintenance traffic would use existing roads or cross-country access routes (including the right-of-way), which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes must be clearly marked with temporary markers such as easily visible flagging. Construction routes, or other means of avoidance, must be approved by the authorized officer or landowner before use. When it is not feasible to avoid constructing access roads in sensitive habitats, SDG&E would perform three site pre-activity surveys to determine the presence or absence of endangered or threatened species, or species of special concern, in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on reasonable and feasible mitigation measures for potential impacts prior to access road construction. However, these pre-activity surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid streambed crossings in steep canyons, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds, to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. When it is not feasible to avoid cultural sites, SDG&E would consult with the appropriate federal and state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as removal and cataloging and/or removal and relocation.

**Table D.4-3. Project Protocols – Cultural Resources**

PP No.	Description
40	To minimize ground disturbance and/or reduce scarring (visual contrast) of the landscape, the alignment of any new access roads (i.e., bladed road) or cross-country route (i.e., unbladed route) would follow the landform contours in designated areas to the extent feasible, providing that such alignment does not additionally impact sensitive features (e.g., riparian area, habitat of sensitive species, cultural site). To the extent feasible, new access roads would be designed to be placed in previously disturbed areas and areas that require the least amount of grading in sensitive areas. Whenever feasible, in areas where there are existing access roads, preference shall be given to the use of new spur roads rather than linking facilities tangentially with new, continuous roads. Where it is infeasible to locate roads along contours, or in previously disturbed areas, or use spur roads to limit grading, the revegetation/seeding plans for the project would incorporate plant species in areas adjacent to access roads that are capable of screening the visual impacts of the roads.
41	In areas designated as sensitive by SDG&E or the resource agencies, to the extent feasible structures and access roads would be designed to avoid sensitive and/or to reduce visual contrast. These areas of sensitive features include but are not limited to high-value wildlife habitats and cultural sites, and/or to allow conductors to clearly span the features, within limits of standard tower or pole design (also see Protocol 52 for avoidance of sensitive water resource features). If the sensitive features cannot be completely avoided, poles and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high-value wildlife habitats, SDG&E would perform three site surveys to determine presence or absence of endangered species in those sensitive habitats. SDG&E would submit results of those surveys to the USFWS and CDFG in accordance with its NCCP and consult on mitigation measures for potential impacts, prior to constructing poles or access roads. However, these site surveys would not replace the need for SDG&E to perform detailed on-the-ground surveys as required by Protocols 20, 21 42, 43, and 44. Where it is not feasible for access roads to avoid sensitive water resource features such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any, one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the USACOE, CDFG, and RWQCB. When it is not feasible for poles or access roads to avoid cultural sites, SDG&E would consult with the appropriate federal, state SHPO and local (indigenous Native American tribes) cultural resource agencies and specialists to either modify the project or develop alternative construction techniques to avoid cultural resources or develop appropriate mitigation measures. Appropriate mitigation measures may include actions such as data recovery studies, cultural resource removal and cataloging, and/or cultural resource removal and relocation.
53	Known and potential cultural and biological resources, which may be affected by the project, would be monitored during project implementation. This would involve pedestrian surveys (i.e., Class III) to inventory and evaluate these resources along the selected route and any impacted area (e.g., access roads, substation sites, staging areas, etc.) beyond the right-of-way. In consultation with appropriate land managing agencies, SHPO officers, and applicable resource agencies, specific avoidance strategies and mitigation measures would be developed and implemented to avoid or mitigate identified adverse impacts on private, state, BLM, tribal, or other lands. The primary goal is to avoid impacts to environmental resources, and secondarily to mitigate for unavoidable impacts. These may include project modifications to avoid adverse impacts, monitoring construction activities, or data recovery studies.
63	In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie the adjacent human remains until the remains have been investigated, as outlined in Section 10564.5 of the CEQA Guidelines, the Native American Grave Protection Act and its implementing regulations, California Health and Safety Code 7050.5, and California Public Resources Code Section 5097.98.

### D.4.3.3 Proposed Miguel-Mission 230 kV #2 Project

Of the 43 CRHR-eligible or potentially eligible resources identified in the boundaries of the Proposed Project, six are located more than 150 feet from proposed construction areas and should not be affected during project construction (Table D.4-4). Table D.4-5 lists the remaining 37 CRHR-eligible or potentially eligible resources that are located within 150 feet of proposed construction areas.

**Table D.4-4. Cultural Resources Located Beyond 150 Feet from Construction Activity**

Resource*	Description	CRHR Eligibility Status	Location
SDM-W-924	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
SDM-W-1095	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4515	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4881	Habitation site	Potentially eligible	Miguel Substation to Fanita Junction
CA-SDI-4899, Locus A	Artifact scatter	Eligible	Miguel Substation to Fanita Junction
CA-SDI-9900	Habitation site	Not eligible	Miguel Substation to Fanita Junction
CA-SDI-12827H	Historic scatter	Potentially eligible	Miguel Substation to Fanita Junction

Source: Collett and Cheever, 2002; SDG&E, 2003c.

\*H suffix denotes historical-period resource.

**Potential Impacts.** Ground-disturbing construction-related activities and unauthorized collecting or vandalism can cause potential impacts to known and undiscovered cultural resources by construction personnel. Future impacts could be caused by road maintenance and by unauthorized collecting or vandalism due to enhanced access afforded by these roads. Adverse effects to historical resources must be eliminated or mitigated to less than significant levels.

Habitation sites, such as the six listed in Table D.4-5, are more likely to contain human remains than other site types identified in the corridor, so the project may have a potentially significant adverse effect on human remains. Cultural resources containing human remains are generally CRHR-eligible. In some instances, however, the significance of a site may be related to Native American cultural values or other qualities for which impacts cannot be fully mitigated through archaeological treatment. In such instances, potential impacts may not be fully mitigable.

Construction activities related to ROW preparation and access would involve construction of new access roads and spurs, and improvements to existing roads. Work areas measuring 150 feet by 150 feet would be cleared around each new or modified structure. Between Miguel Substation and Fanita Junction, ten stringing/staging areas, and 24 stringing sites, each one-to-two acres in size, would be cleared and stabilized with crushed rock. Between Fanita Junction and Mission Substation two stringing/staging areas and six stringing sites would be cleared and stabilized.

Installation of new wood and steel poles for the 138 kV and 69 kV circuits between Miguel Substation and Fanita Junction would involve excavation of holes with a truck-mounted auger or backhoe. Wood poles require 3-foot-diameter holes between 8 and 12 feet deep and steel poles require 8-to-9-foot-diameter holes between 20 and 40 feet deep. Modification of the existing 230 kV circuit involves replacement of 31 lattice towers with steel poles and installation of 11 new steel poles. Pole installation would require excavation of 8-to-9-foot-diameter holes between 20 and 40 feet deep with a truck-mounted auger or backhoe. Installation of the new 230 kV circuit between Fanita Junction and Mission Substation would be confined to existing structures and no new poles would be installed. Ground-disturbing substation modifications would include construction of new footings and possible placement of new steel support structures on substation property.

**Table D.4-5. CRHR-Eligible or Potentially CRHR-Eligible Cultural Resources within 150 Feet of Construction Activity**

Resource*	Description	Number of Project Components with Potential to Impact Resource				
		Access Road	Staging Area	Substation	Existing Structure	Proposed Structure
SDM-W-1714	Lithic scatter	1	-	-	2	-
CA-SDI-4353	Milling site	1	-	-	-	-
CA-SDI-4526	Habitation site	1	-	-	-	-
CA-SDI-4528/H	Lithic scatter/historic scatter	1	-	-	-	-
CA-SDI-4533	Lithic scatter	1	-	-	-	-
CA-SDI-4607	Habitation site	1	1	-	1	-
CA-SDI-4650	Milling site	1	-	-	-	-
CA-SDI-4652	Artifact scatter	1	-	-	-	-
CA-SDI-4758H	Historic scatter	1	-	-	-	-
CA-SDI-4883	Artifact scatter	1	1	-	2	1
CA-SDI-4884H	Historic scatter	1	-	-	-	-
CA-SDI-4885	Artifact scatter	1	-	-	-	-
CA-SDI-4894	Lithic scatter	1	-	-	-	-
CA-SDI-4895	Rock feature	1	-	-	-	-
CA-SDI-4896	Rock feature	1	-	-	-	-
CA-SDI-4897/H, Locus A	Artifact scatter	1	-	1	2	-
CA-SDI-4897/H, Locus E	Artifact scatter/historic scatter	1	-	-	-	-
CA-SDI-4897/H, Locus F	Lithic scatter	1	-	-	-	-
CA-SDI-4897/H, Locus I	Lithic scatter	1	-	-	-	-
CA-SDI-4898	Lithic scatter	1	-	-	2	1
CA-SDI-4899, Locus C	Lithic scatter	-	1	-	1	1
CA-SDI-4912	Habitation site	1	-	-	2	1
CA-SDI-9256	Lithic scatter	1	-	-	-	-
CA-SDI-9257	Lithic scatter	1	-	-	-	-
CA-SDI-10648	Milling site	1	-	-	2	1
CA-SDI-11284	Artifact scatter	1	-	-	-	-
CA-SDI-11285	Habitation site	-	1	-	1	-
CA-SDI-12055	Lithic scatter	1	-	-	-	-
CA-SDI-12072	Lithic scatter	1	-	-	-	-
CA-SDI-12073	Artifact scatter	1	-	-	-	-
CA-SDI-12295	Milling site	1	-	-	-	-
CA-SDI-13188	Milling site	1	-	-	-	-
CA-SDI-13576	Lithic scatter	1	-	-	1	-
CA-SDI-13622/H	Milling site/historic	1	-	-	-	-
CA-SDI-13652	Habitation site	1	1	-	3	1
CA-SDI-16401	Milling site	1	-	-	2	1
CA-SDI-14031	Habitation site	1	-	-	-	-

Source: Collett and Cheever, 2002; SDG&E, 2003c.

\* H suffix denotes historical-period resource. /H suffix denotes prehistoric site with historical-period component.

Future operations would include maintenance of selected access roads and work areas around transmission structures. Access roads would be periodically bladed and areas around structures kept cleared. Impacts could also result during maintenance from vandalism or unauthorized collection of cultural materials from sites by maintenance personnel or the public.

**Mitigation of Impacts.** The preferred treatment of cultural resources under CEQA is avoidance if feasible. To ensure avoidance, the boundary of all cultural resources within 150 feet of construction areas should be staked prior to construction to prevent unintended damage. Resources previously determined ineligible for listing in the CRHR or nonunique archaeological resources do not require staking and need no further consideration in the planning process. Ineligible resources in the Proposed Project area include:

- Cultural resources that have been formally evaluated and determined ineligible for listing in the CRHR
- Cultural resources destroyed by past development
- Isolated artifacts

If avoidance is not feasible, then cultural resources that would be affected by proposed construction and future maintenance must be evaluated to determine if they meet the criteria of an historical resource. Sites failing to meet those criteria must also be evaluated to determine if they are unique archaeological resources under CEQA. A data recovery plan as defined in CCR 15126.4(b)(4)(C) would then be developed and implemented for historical resources or unique archaeological resources that cannot be feasibly avoided.

If human remains are encountered during project construction, provisions in State law pertaining to such discoveries would be followed, as required by Section 7050.5 of the Health and Safety Code. Construction in the affected area would halt immediately and the County Coroner would be notified. If the Coroner's office determines that the remains are of Native American origin, it would notify the Native American Heritage Commission (NAHC) within two days. The NAHC would identify the Most Likely Descendant (MLD) pursuant to Section 5097.98 of the Public Resources Code, and the project proponent would consult with the MLD to determine the preferred treatment of the human remains. Following implementation of the agreed upon treatment (i.e., repatriation, reburial onsite, or other measures agreed to by the proponent and the MLD), this potential impact would be mitigated to the extent feasible.

Many cultural resources in the project area were recorded before the availability of global positioning system (GPS) or other highly accurate mapping technologies and their exact locations are uncertain. Attempts at relocating many of these sites were unsuccessful due to dense vegetation and other constraints. Cultural resource boundaries are based on distributions of surface features and artifacts and may be inaccurate. Because of these accuracy issues, all project-related clearing and grubbing and all excavation within the vicinity of known cultural resources should be monitored by an archaeologist to ensure that undiscovered resources are treated in accordance with CEQA.

Portions of the project area with slopes over 25 percent and areas of dense vegetation with less than 10 percent ground visibility were not examined during project-related cultural resource surveys and may contain undiscovered cultural resources. Any construction in areas that were not examined should be surveyed prior to clearing and grubbing.

Cultural resources obscured by dense vegetation or buried beneath natural or artificial fill may be present in the project area and would not have been discovered during previous surveys. All clearing, grubbing, and excavation should be monitored by an archaeologist to prevent avoidable impacts to buried cultural resources.

Construction personnel are often unfamiliar with the legal protections afforded cultural resources. In order to increase their awareness, foster better communication between construction personnel and project archaeologists, and to reduce the chance of unauthorized collecting or vandalism to cultural resources, all construction personnel should receive cultural resources awareness training.

Construction of new access roads and improvements to existing ones can potentially enhance public access to cultural resources and lead to an increase in unauthorized collecting and vandalism. To limit

public access to sensitive areas, all access roads leading through areas containing cultural resources should be blocked to unauthorized vehicular traffic.

### **Impact C-1: Construction Operations Could Affect Known Cultural Resources**

Construction operations related to access roads, work areas, staging areas, stringing sites, and substations have the potential to affect known cultural resources. Impacts could also result during construction from accidental damage. This impact is lessened by PP-39, PP-40, and PP-41, whereby SDG&E commits to designing access roads and structures to avoid cultural resources to the extent feasible, and by PP-53, whereby SDG&E commits to monitoring and evaluating cultural resources during construction. However, these protocols do not reduce potential project effects below significant levels because: (1) they only imply, but do not specify avoidance of cultural resources located in staging areas, stringing sites, and substations; (2) they fail to explicitly identify the criteria for determining where monitoring shall occur; (3) they lack a mechanism to prevent accidental damage to known cultural resources located in close proximity to construction areas; and (4) they are unclear about the timing and procedures regarding evaluation. These specific requirements are outlined in Mitigation Measures C-1a through C-1d below. This impact is potentially significant, but can be mitigated to a less than significant level (Class II) through the implementation of Mitigation Measures C-1a through C-1d.

#### ***Mitigation Measures for Impact C-1, Construction Operations Could Affect Known Cultural Resources***

- C-1a Avoid all known cultural resources.** In addition to avoiding cultural resources located along access roads and structure locations, SDG&E shall avoid, if feasible, all cultural resources located in staging areas, stringing sites, substations, and other areas subjected to ground-disturbing construction operations.
- C-1b Conduct construction monitoring within 150 feet of known cultural resources.** All ground-disturbing activities within 150 feet of a known cultural resource shall be monitored. Cultural resources discovered during monitoring shall be evaluated to determine if they are historical resources or unique archaeological resources. The effect of the project on historical resources or unique archaeological resources identified by evaluation shall be determined and appropriate mitigation measures developed. Determination of project effects shall include consideration of effects from future maintenance operations.
- C-1c Mark cultural resource boundaries.** All known historical resources and potential historical resources within 150 feet of any construction area shall be clearly marked with highly visible temporary markers prior to construction. All marking shall be removed during cleanup and restoration. Cultural resources determined ineligible for listing in the CRHR or determined to be nonunique archaeological resources do not require avoidance. Ineligible resources include: (1) cultural resources that have been formally evaluated and determined ineligible for listing in the CRHR; (2) cultural resources destroyed by past development; and (3) isolated artifacts.
- C-1d Evaluate cultural resources that cannot be avoided.** All cultural resources that cannot feasibly be avoided shall be evaluated. The effect of the project on historical resources or unique archaeological resources shall be assessed and appropriate mitigation measures developed. Assessment of project effects shall also include effects from future maintenance operations. A data recovery plan shall be developed pursuant to the provisions of CCR 15126.4(b)(3)(C) when data recovery excavation is chosen as mitigation of project effects. Any data recovery plan developed pursuant to this mitigation measure shall be fully implemented prior to and during construction or maintenance activities that cause adverse effects.

### **Impact C-2: Construction Operations Could Affect Undiscovered Cultural Resources**

Portions of the project area with slopes over 25 percent and areas of dense vegetation with less than 10 percent ground visibility were not examined during project-related cultural resource surveys and may contain undiscovered cultural resources. Additionally, buried or otherwise obscured cultural resources may be present in the project area. This impact is lessened by provisions in PP-53, whereby SDG&E commits to inventorying cultural resources in areas subject to project effects and to monitor known cultural resources during construction. These provisions do not reduce potential project effects below significant levels because they fail to specify under what conditions areas of steep slope and dense vegetation should be examined and they fail to address potential effects to undiscovered cultural resources. These specific requirements are outlined in Mitigation Measures C-2a and C-2b below. This impact is potentially significant, but can be mitigated to a less than significant level (Class II) through the implementation of Mitigation Measures C-2a and C-2b.

#### ***Mitigation Measures for Impact C-2, Construction Operations Could Affect Undiscovered Cultural Resources***

- C-2a Conduct archaeological survey.** All areas subject to ground-disturbing activities that have not been previously surveyed, or where previous surveys were inadequate due to steep slope or dense vegetation, shall be surveyed prior to clearing or other ground-disturbing construction operations. Upon discovery of cultural resources, the Project Protocols and mitigation measures for Impact C-1 shall be implemented.
- C-2b Conduct construction monitoring in the project area.** All ground-disturbing activities in the project area shall be monitored. Cultural resources discovered during monitoring shall be evaluated to determine if they are historical resources or unique archaeological resources. The effects of the project on evaluated historical resources or unique archaeological resources shall be determined and appropriate mitigation measures developed and implemented. Determination of project effects shall also include effects from future maintenance operations.

### **Impact C-3: Future Maintenance Operations Could Affect Known Cultural Resources**

Implementation of the Project Protocols and mitigation measures for Impacts C-1 and C-2 will ensure that potential adverse effects to historical resources or unique archaeological resources caused by future excavation associated with access-road or structure-pad maintenance will be less than significant during construction activities. Not addressed by the Project Protocols and mitigation measures, however, are potential impacts during maintenance from accidental damage, vandalism, or unauthorized collection of cultural materials by maintenance personnel. This impact is potentially significant, but can be mitigated to a less than significant level (Class II) through the implementation of Mitigation Measure C-3a.

#### ***Mitigation Measures for Impact C-3, Future Maintenance Operations Could Affect Known Cultural Resources***

- C-3a Provide cultural resources awareness training to maintenance personnel.** All maintenance personnel shall receive cultural resources awareness training regarding the appropriate work practices necessary to effectively protect cultural resources in and adjacent to the project area. This training shall address federal, State, local, and tribal laws, where applicable, regarding cultural resources; the importance of these resources and the purpose and necessity of protecting them; and methods for protecting cultural resources.

### **Impact C-4: General Public May Collect or Vandalize Cultural Resources**

Construction of new access roads and improvements to existing ones would provide public access to previously inaccessible cultural resources and lead to an increase in accidental damage, vandalism, or unauthorized collecting. This impact is potentially significant, but can be mitigated to less than significant levels (Class II) through the implementation of Mitigation Measure C-4a.

#### ***Mitigation Measures for Impact C-4, General Public May Collect or Vandalize Cultural Resources***

**C-4a Install locked gates on access roads.** Locked gates shall be installed on all access roads to prevent unauthorized public vehicular traffic to areas containing cultural resources.

### **D.4.3.4 Future 230 kV Circuit within Miguel-Mission ROW**

The future 230 kV circuit within Miguel-Mission ROW would consist of a second bundled 230 kV circuit in a vacant position on towers that would be in place at the time of construction. If installation of the future circuit occurs at the same time as the Proposed Project it will introduce no new effects to cultural resources in the area between Miguel Substation and Fanita Junction not already imposed by the Proposed Project and addressed by the Project Protocols and mitigation measures in Section D.4.3.3.

Installation of the future circuit after completion of the Proposed Project has the potential to affect cultural resources during construction activities on or in access roads, work areas, staging areas, stringing sites, and substations. Impacts could also result during construction from accidental damage, vandalism, or unauthorized collection of cultural materials from sites by project personnel. These impacts are potentially significant (Class II), but can be mitigated to less than significant levels. Implementation of the Project Protocols and Mitigation Measures C-1a through C-1d, C-2a and C-2b, C-3a, and C-4a for the future circuit will reduce potential impacts to less than significant levels.

## **D.4.4 Project Alternatives**

### **D.4.4.1 Jamacha Valley 138 kV/69 kV Underground Alternative**

The Jamacha Valley 138 kV/69 kV Underground Alternative would involve relocating the existing 138 kV and 69 kV circuits underground for 3.5 miles along Willow Glen Drive in the Jamacha Valley.

#### **Environmental Setting**

This alternative is set on the northeast side of Jamacha Valley, a wide river valley formed by the Sweetwater River. This perennial stream drains a portion of the Cuyamaca Mountains. Until recently, this stream nourished a variety of riparian and other stream-side environments that would have provided rich habitats for many plants and animals important to the lives of the Kumeyaay people. The generally wide and level valley floor would have served as a transportation corridor for the Kumeyaay during their seasonal movements from the coast to the mountains. Stream valleys such as the Jamacha Valley are magnets for people practicing a hunter-gather lifestyle, and would have been frequently visited by the Kumeyaay and their predecessors. Components of the ethnographic village of Motamo, as well as a variety of other sites, are located in the higher ground flanking the valley. Other activities undoubtedly occurred closer to the stream.

The potential for buried prehistoric archaeological sites in the valley is high. Stream valleys are depositional environments and frequently large amounts of sediment are deposited during high-flow events. It is common to find deeply buried archaeological sites in such environments.

Beginning in the Mission period and continuing into the early-to-middle twentieth century, the valley was used for ranching, farming, and other agricultural activities. Willow Glen Drive traverses the northwestern edge of the valley and although the age of the road is uncertain, it is probably old enough to qualify as a potential historical resource. Because of the depositional nature of the valley, the potential for buried historical-period archaeological sites in the valley is high.

### **Environmental Impacts and Mitigation Measures**

The Jamacha Valley 138 kV/69 kV Underground Alternative route was not included in the cultural resources studies performed for the Proposed Project and the presence of historical resources or unique archaeological resources along the route is unknown. Although this alternative involves relocating the existing circuits underground along an existing paved road, how deeply the circuits will be buried is unknown, and trenching may expose undisturbed sediments containing archaeological deposits. Consequently this alternative could potentially affect known and undiscovered cultural resources. These impacts are potentially significant, but can be mitigated to less than significant levels (Class II).

#### **Impact C-5: Construction Operations Could Affect Buried Archaeological Sites along the Sweetwater River**

This alternative is located along the Sweetwater River in an archaeologically sensitive area, which is an area with a high probability of buried sites located in the vicinity. Excavation during construction activities would have the potential to affect historical resources or unique archaeological resources.

#### ***Mitigation Measure for Impact C-5, Construction Operations Could Affect Buried Archaeological Sites along the Sweetwater River***

**C-5a Develop and implement buried sites testing program.** Given the high likelihood of buried sites along the Sweetwater River, SDG&E shall determine the potential for buried sites through records searches and a buried sites testing program designed to inventory the presence of buried archaeological deposits. The buried sites testing program shall assess project effects on any cultural resources discovered during testing and shall make recommendations concerning their treatment. Impacts to cultural resources discovered during buried sites testing shall be mitigated to less than significant levels through avoidance or data recovery excavations. Willow Glen Drive may be old enough to qualify as a potential historical resource and will require evaluation as the first phase of the buried sites testing program.

### **Comparison to Proposed Project**

The number of potential impacts to cultural resources is higher with this alternative than with the Proposed Project. Because the proposed 138 kV/69 kV transmission structures are generally located near existing transmission towers and would use the same access roads as the other structures, eliminating the 138 kV and 69 kV circuits from this segment would not appreciably reduce the potential impacts to cultural resources from the Proposed Project. None of the proposed 138 kV/69 kV structures that would be eliminated under this alternative would affect known cultural resources.

Willow Glen Drive is located in an area with a high likelihood for buried historical resources and unique archaeological resources. Unlike tower construction that affects a relatively small footprint and has a relatively low potential for affecting cultural resources, installing circuits underground in an area with a high sensitivity for cultural resources would dramatically increase the chances of affecting undiscovered cultural resources.

This alternative does not appreciably remove any potential impacts to known cultural resources, but increases the likelihood of affecting unknown buried cultural resources by moving construction to an area of higher archaeological sensitivity and vastly increasing the amount of ground disturbance. In addition, Willow Glen Drive may itself be an historical resource and will be affected by the alternative.

### **Comparison to Proposed Project with Future Circuit**

The future 230 kV circuit would be installed in the vacant position on overhead towers. Regardless, the number of potential impacts to cultural resources is higher for this alternative with the future 230 kV circuit than for the Proposed Project combined with the future circuit because it would increase the likelihood of affecting unknown buried cultural resources by moving construction to an area of higher archaeological sensitivity and vastly increasing the amount of ground disturbance. In addition, Willow Glen Drive may itself be an historical resource and be affected by the alternative. The future circuit would introduce no additional impacts to cultural resources if it were installed during construction of the Proposed Project. If the future circuit were installed after completion of the Proposed Project, construction would have the potential to affect additional cultural resources. This alternative would not, however, eliminate any potential effects on cultural resources introduced by the future circuit.

### **D.4.4.2 Jamacha Valley Overhead A Alternative**

Under this alternative, the 138 kV and 69 kV circuits would be located on new steel mono-poles on the east side of the ROW, from a point near the Herrick Center (Steele Canyon Road and Jamul Drive) to the intersection of the Miguel-Mission ROW and Hillsdale Road. The new alignment of poles would be located 12 feet from the eastern edge of the ROW. The 69 kV circuit would be located on the west side of the new alignment of steel mono-poles, and the 138 kV circuit would be positioned on the east side. Access roads would need to be constructed (or extended) for this alternative in order to access the construction sites along the eastern boundary of the ROW.

### **Environmental Setting**

Because this alternative would be within the existing ROW, the setting for this alternative is similar to the Proposed Project along this segment. This alternative would be set on the northeast side of Jamacha Valley, a wide river valley formed by the Sweetwater River. This perennial stream drains a portion of the Cuyamaca Mountains. Until recently, this stream nourished a variety of riparian and other stream-side environments that would have provided rich habitats for many plants and animals important to the lives of the Kumeyaay people. The generally wide and level valley floor would have served as a transportation corridor for the Kumeyaay during their seasonal movements from the coast to the mountains. Stream valleys such as the Jamacha Valley were magnets for people practicing a hunter-gather lifestyle, and would have been frequently visited by the Kumeyaay and their predecessors. Components of the ethnographic village of Motamo, as well as a variety of other sites, are located in the higher ground flanking the valley. Other activities undoubtedly occurred closer to the stream.

The potential for buried prehistoric archaeological sites in the valley is high. Stream valleys are depositional environments and frequently large amounts of sediment are deposited during high-flow events. It is common to find deeply buried archaeological sites in such environments. Beginning in the Mission period and continuing into the early-to-middle twentieth century, the valley was used for ranching, farming, and other agricultural activities. Because this alternative is located in SDG&E's existing ROW, the following CRHR-Eligible or Potentially CRHR-Eligible Cultural Resources sites (listed in Table D.4-5) for the Proposed Project in the ROW between the Herrick Center and Hillsdale Road would also be potentially affected by this alternative: CA-SDI-4883, CA-SDI-16401, and CA-SDI-4650.

### **Environmental Impacts and Mitigation Measures**

Installation of this alternative has the potential to affect known and unknown cultural resources during construction and maintenance operations related to access roads, pole installation, work areas, staging areas, stringing sites, and substations. Impacts would be generally the same as described for the Proposed Project. Impacts could also result during construction from accidental damage, vandalism, or unauthorized collection of cultural materials from sites by project personnel. These impacts are potentially significant, but can be mitigated to less than significant levels (Class II). The Project Protocols and Mitigation Measures C-1a through C-1d, C-2a and C-2b, C-3a, and C-4a would reduce potential impacts to less than significant levels.

### **Comparison to Proposed Project**

This alternative would have a greater area of disturbance during construction of the pole sites and the access roads in comparison to the Proposed Project, which would thereby increase its potential effects on known and unknown cultural resources.

### **Comparison to Proposed Project with Future Circuit**

The number of potential impacts to cultural resources is higher for this alternative with the future 230 kV circuit than for the Proposed Project combined with the future circuit because of a greater area of disturbance during construction of the pole sites and the required longer access roads in the Jamacha Valley. The future circuit would introduce no additional impacts to cultural resources if it were installed during the Proposed Project. If the future circuit were installed after completion of the Proposed Project, it would have the potential to affect cultural resources. This alternative, however, would not eliminate any potential effects on cultural resources introduced by the future circuit.

### **D.4.4.3 Jamacha Valley Overhead B Alternative**

The Jamacha Valley Overhead B Alternative would result in the addition of two steel mono-pole structure alignments and one lattice structure along the Miguel-Mission ROW in Jamacha Valley. At a point near the Herrick Center, the existing 138 kV/69 kV lattice towers would be removed and the existing 138 kV/69 kV circuits would be relocated to new steel mono-pole structures on the west side of the ROW. The new 230 kV circuit would be placed on new steel pole structures between the existing steel lattice structures and the new poles for the 138 kV and 69 kV circuits. This alternative would involve the installation of approximately 19 steel mono-poles to accommodate the relocated 138 kV/69 kV circuits through Jamacha Valley.

## Environmental Setting

This alternative extends from the Herrick Center (Steele Canyon Road and Jamul Drive) to northwest of the intersection of Dehesa Road and Willow Glen Drive in Jamacha Valley. Along most of this alternative route, the alternative would be confined to the steep slopes and narrow ridges typical of the highlands east of San Diego Bay. It would cross several streams including the Sweetwater River in the Jamacha Valley. Vegetation along the alternative is varied and includes plants typical of the coastal sage scrub and chaparral plant communities, as well as areas of riparian vegetation along floors of the larger drainage channels. Because this alternative is located in SDG&E's existing ROW, the following CRHR-Eligible or Potentially CRHR-Eligible Cultural Resources sites (listed in Tables D.4-4 and D.4-5) for the Proposed Project in the ROW between the Herrick Center and Dehesa Roads would also be potentially affected by this alternative: CA-SDI-4883, CA-SDI-16401, CA-SDI-4650; CA-SDI-4652; CA-SDI-10648; CA-SDI-4881; CA-SDI-4515; SDM-W-1095; and SDM-W-924.

## Environmental Impacts and Mitigation Measures

Installation of this alternative has the potential to affect known and unknown cultural resources during construction and maintenance operations related to access roads, pole installation, work areas, staging areas, stringing sites, and substations. Impacts could also result during construction from accidental damage, vandalism, or unauthorized collection of cultural materials from sites by project personnel. The types of impacts resulting from this alternative would be the same as those described for the Proposed Project. These impacts are potentially significant, but can be mitigated to less than significant levels (Class II). The Project Protocols and Mitigation Measures C-1a through C-1d, C-2a and C-2b, C-3a, and C-4a would reduce potential impacts to less than significant levels.

## Comparison to Proposed Project

The number of potential impacts to cultural resources would be higher with this alternative than with the Proposed Project. This alternative would increase potential impacts in the Jamacha Valley where the existing 138 kV/69 kV steel lattice structures would be replaced by new poles. The replacement of the existing 138 kV/69 kV structures in the Jamacha Valley would increase construction in this area over that for the Proposed Project, thereby increasing the potential effects on known and unknown cultural resources.

## Comparison to Proposed Project with Future Circuit

The number of potential impacts to cultural resources is higher for this alternative with the future 230 kV circuit than for the Proposed Project combined with the future circuit because of the replacement of the 138 kV and 69 kV circuits in the Jamacha Valley. The future circuit will introduce no additional impacts to cultural resources if it is installed during the Proposed Project. If the future circuit is installed after completion of the Proposed Project, it has the potential to affect cultural resources. This alternative, however, would not eliminate any potential effects on cultural resources introduced by the future circuit.

### D.4.4.4 City of Santee 138 kV/69 kV Underground Alternative

The City of Santee 138 kV/69 kV Underground Alternative involves relocating the existing 69 kV circuit underground for approximately 0.6 miles along a paved water storage access road and 0.75 miles along the length of Princess Joann Road in the City of Santee. The underground circuit would continue northwest approximately 800 feet across undeveloped land from the western end of Princess Joann Road to the Miguel-Mission ROW.

## **Environmental Setting**

This alternative is set approximately two miles north of the San Diego River across the head of a small southerly trending valley and its flanking hills. The topography is relatively gentle along the valley floor, but is steeper and more rugged in the hills to the east. Vegetation is mixed native scrub and introduced grasses and weeds. Bedrock crops out locally in the general area.

The location is not particularly favorable for prehistoric habitation sites, although its proximity to the San Diego River, a major stream, would have made it attractive to the Kumeyaay and their predecessors for resource collection and processing.

## **Environmental Impacts and Mitigation Measures**

The portion of this alternative south of the Miguel-Mission ROW was not included in the cultural resources studies performed for the Proposed Project and the presence of historical resources or unique archaeological resources along that route is unknown. Although this alternative involves relocating the existing circuits underground along an existing paved road, how deeply the circuit will be buried is unknown, and trenching may expose undisturbed sediments containing archaeological deposits. Consequently this alternative can potentially affect known and undiscovered cultural resources. These impacts are potentially significant. Implementation of the Project Protocols and mitigation measures developed for the Proposed Project would reduce the potential impacts to cultural resources from this alternative to less than significant levels (Class II).

## **Comparison to Proposed Project**

The number of potential impacts to cultural resources is slightly higher with this alternative than with the Proposed Project. Because the proposed 138 kV/69 kV transmission structures are generally located near existing transmission towers and will use the same access roads as the other structures, eliminating the 138 kV and 69 kV circuits from the segments does not appreciably reduce the potential impacts to cultural resources from the Proposed Project. None of the proposed 138 kV/69 kV structures that will be eliminated under this alternative will affect known cultural resources.

In general, installing circuits underground increases the amount of ground disturbance and increases the chances of affecting cultural resources. For this alternative, most of the underground circuit will be along Princess Joann Road, a residential street running through a modern housing development. Although the depth of disturbance in this area is unknown, modern housing developments usually include extensive grading, particularly in valley floors and drainage channels, and the likelihood of archaeological deposits being present along Princess Joann Road is relatively low. There is a greater likelihood of affecting cultural resources along the paved access road and in the undeveloped portions of this alternative.

This alternative does not appreciably remove any potential impacts to known cultural resources, but only slightly increases the likelihood of affecting unknown buried cultural resources by increasing the amount of ground-disturbing construction.

## **Comparison to Proposed Project with Future Circuit**

The number of potential impacts to cultural resources is slightly higher for this alternative with the future 230 kV circuit than for the Proposed Project combined with the future 230 kV circuit because of the increased likelihood of affecting unknown buried cultural resources by increasing the amount of ground-disturbing construction. The future circuit will introduce no additional impacts to cultural re-

sources if it is installed during the Proposed Project. If the future circuit is installed after completion of the Proposed Project, it has the potential to affect cultural resources. This alternative would not eliminate any potential effects on cultural resources introduced by the future circuit.

#### **D.4.4.5 City of Santee 230 kV Overhead Northern ROW Boundary Alternative**

Under this alternative the Proposed Project would be constructed as proposed with the exception of a portion of the route in the City of Santee where the proposed 230 kV circuit would transition to the northern side of the ROW near the water tanks due east of the eastern end of Princess Joann Road and transition back to the southern side at a point approximately 800 feet northwest of the western end of Princess Joann Road. The three proposed 138 kV wood and steel poles associated with the Proposed Project would be retained but would be moved to the northern side of the ROW. Two additional 230 kV steel monopoles would be added to allow crossover of the circuits at the two endpoints.

#### **Environmental Setting**

The setting of this alternative is similar to the Proposed Project and is set approximately two miles north of the San Diego River across the head of a small southerly trending valley and its flanking hills. The topography is relatively gentle along the valley floor, but is steeper and more rugged in the hills to the east. Vegetation is mixed native scrub and introduced grasses and weeds. Bedrock crops out locally in the general area.

The location is not particularly favorable for prehistoric habitation sites, although its proximity to the San Diego River, a major stream, would have made it attractive to the Kumeyaay and their predecessors for resource collection and processing. Because this alternative is located in SDG&E's existing ROW, the following CRHR-Eligible or Potentially CRHR-Eligible cultural resources sites that are listed in Table D.4-5 for the Proposed Project would also be potentially affected by this alternative: CA-SDI-12246, CA-SDI-12244, CA-SDI-12099, and CA-SDI-4885.

#### **Environmental Impacts and Mitigation Measures**

Installation of this alternative has the potential to affect known and unknown cultural resources during construction and maintenance operations related to access roads, pole installation, work areas, staging areas, stringing sites, and substations. Impacts could also result during construction from accidental damage, vandalism, or unauthorized collection of cultural materials from sites by project personnel. Impacts would be of the same type as described for the Proposed Project. These impacts are potentially significant, but can be mitigated to less than significant levels (Class II). The Project Protocols and Mitigation Measures C-1a through C-1d, C-2a and C-2b, C-3a, and C-4a would reduce potential impacts to less than significant levels.

#### **Comparison to Proposed Project**

This alternative would have a greater area of disturbance during construction of the two additional monopole sites in comparison to the Proposed Project, which would thereby increase its potential effects on known and unknown cultural resources. The implementation of the Project Protocols and mitigation measures for the alternative would reduce the effect of the alternative on cultural resources to less than significant levels.

### **Comparison to Proposed Project with Future Circuit**

The number of potential impacts to cultural resources would be higher for this alternative with the future 230 kV circuit than for the Proposed Project combined with the future circuit because of a greater area of disturbance during construction of the two additional crossover mono-pole sites. The future circuit would introduce no additional impacts to cultural resources if it were installed at the same time as the Proposed Project. If the future circuit were installed after completion of the Proposed Project, it would have the potential to affect additional cultural resources. This alternative, however, would not eliminate any potential effects on cultural resources introduced by the future circuit.

### **D.4.5 Environmental Impacts of the No Project Alternative**

The likelihood of adverse impacts from a project hinges on the potential of damaging or destroying known or unanticipated cultural deposits during project construction. Under the No Project Alternative, no adverse impacts to cultural resources would be expected due to the CAISO-implemented congestion measures. However, impacts to cultural resources could occur under the No Project Alternative if new power plants are constructed. Although new power plants may be necessary in the San Diego area, their location and schedule for development cannot be predicted. It is assumed that construction of new power plants would comply with CEQA and that appropriate mitigation measures similar to the ones described in this EIR would be implemented to reduce potentially significant impacts to less than significant levels.

## D.4.6 Mitigation Monitoring, Compliance, and Reporting Table

Table D.4-6 shows the mitigation monitoring, compliance, and reporting program for Cultural Resources.

**Table D.4-6. Mitigation Monitoring Program – Cultural Resources**

<b>IMPACT C-1</b>	<b>Construction Operations Could Affect Known Cultural Resources (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>C-1a: Avoid all known cultural resources.</b> In addition to avoiding cultural resources located along access roads and structure locations, SDG&E shall avoid, if feasible, all cultural resources located in staging areas, stringing sites, substations, and other areas subjected to ground-disturbing construction operations.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to verify that cultural resources have been avoided.
<b>Effectiveness Criteria</b>	Known cultural resources are not affected by construction activities
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Prior to construction, during construction phase of project, and during ROW cleanup and restoration
<b>MITIGATION MEASURE</b>	<b>C-1b: Conduct construction monitoring within 150 feet of known cultural resources.</b> All ground-disturbing activities within 150 feet of a known cultural resource shall be monitored. Cultural resources discovered during monitoring shall be evaluated to determine if they are historical resources or unique archaeological resources. The effect of the project on historical resources or unique archaeological resources identified by evaluation shall be determined and appropriate mitigation measures developed. Determination of project effects shall include consideration of effects from future maintenance operations.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to prepare monthly monitoring reports and final monitoring report. Monitoring reports should be coordinated with reporting required for Mitigation Measure C-2b.
<b>Effectiveness Criteria</b>	Known cultural resources are not affected by construction operations. Previously undetected cultural resources are identified and properly treated
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	During construction phase of project and during ROW cleanup and restoration
<b>MITIGATION MEASURE</b>	<b>C-1c: Mark cultural resource boundaries.</b> All known historical resources and potential historical resources within 150 feet of any construction area shall be clearly marked with highly visible temporary markers prior to construction. All marking shall be removed during cleanup and restoration. Cultural resources determined ineligible for listing in the CRHR or determined to be nonunique archaeological resources do not require avoidance. Ineligible resources include: (1) cultural resources that have been formally evaluated and determined ineligible for listing in the CRHR; (2) cultural resources destroyed by past development; and (3) isolated artifacts.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to verify that cultural resources have been marked.
<b>Effectiveness Criteria</b>	Known cultural resources are not affected by construction activities.
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	During construction phase of project and during ROW cleanup and restoration
<b>MITIGATION MEASURE</b>	<b>C-1d: Evaluate cultural resources that cannot be avoided.</b> All cultural resources that cannot feasibly be avoided shall be evaluated. The effect of the project on historical resources or unique archaeological resources shall be assessed and appropriate mitigation measures developed. Assessment of project effects shall also include effects from future maintenance operations. A data recovery plan shall be developed pursuant to the provisions of CCR 15126.4(b)(3)(C) when data recovery excavation is chosen as mitigation of project effects. Any data recovery plan developed pursuant to this mitigation measure shall be fully implemented prior to and during construction or maintenance activities that cause adverse effects.
<b>Location</b>	Entire project area

**Table D.4-6. Mitigation Monitoring Program – Cultural Resources**

<b>Monitoring / Reporting Action</b>	CPUC to prepare an evaluation report and treatment plan.
<b>Effectiveness Criteria</b>	Historical resources or unique archaeological resources are not adversely effected by the project
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Prior to construction, during construction phase of project, and during ROW cleanup and restoration
<b>IMPACT C-2</b>	<b>Construction Operations Could Affect Undiscovered Cultural Resources (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>C-2a: Conduct archaeological survey.</b> All areas subject to potential ground-disturbing activities that have not been previously surveyed, or where previous surveys were inadequate due to steep slope or dense vegetation, shall be surveyed prior to clearing or other potential ground-disturbing construction operations. Upon discovery of cultural resources mitigation measures for Impact C-1 shall be implemented.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to prepare an archaeological survey report.
<b>Effectiveness Criteria</b>	Previously undetected cultural resources are identified and properly treated
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Prior to construction
<b>MITIGATION MEASURE</b>	<b>C-2b: Conduct construction monitoring in the project area.</b> All ground-disturbing activities in the project area shall be monitored. Cultural resources discovered during monitoring shall be evaluated to determine if they are historical resources or unique archaeological resources. The effects of the project on evaluated historical resources or unique archaeological resources shall be determined and appropriate mitigation measures developed and implemented. Determination of project effects shall also include effects from future maintenance operations.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to prepare monthly monitoring reports and final monitoring report. Monitoring reports should be coordinated with reporting required for Mitigation Measure C-1b.
<b>Effectiveness Criteria</b>	Previously undetected cultural resources are identified and properly treated
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	During construction phase of project and during ROW cleanup and restoration
<b>IMPACT C-3</b>	<b>Future Maintenance Operations Could Affect Known Cultural Resources (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>C-3a: Provide cultural resources awareness training to maintenance personnel.</b> All maintenance personnel shall receive cultural resources awareness training regarding the appropriate work practices necessary to effectively protect cultural resources in the project area. This training shall address federal, State, local, and tribal laws, where applicable, regarding cultural resources; the importance of these resources and the purpose and necessity of protecting them; and methods for protecting cultural resources.
<b>Location</b>	Entire project area
<b>Monitoring / Reporting Action</b>	CPUC to verify implementation of training program.
<b>Effectiveness Criteria</b>	Known cultural resources are not affected by maintenance operations
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	At completion of construction phase
<b>IMPACT C-4</b>	<b>General Public May Collect or Vandalize Cultural Resources (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>C-4a: Install locked gates on access roads.</b> Locked gates shall be installed on all access roads to prevent unauthorized public vehicular traffic to areas containing cultural resources.
<b>Location</b>	Entire project area

**Table D.4-6. Mitigation Monitoring Program – Cultural Resources**

<b>Monitoring / Reporting Action</b>	CPUC to verify installation of gates.
<b>Effectiveness Criteria</b>	Access roads are not used by unauthorized vehicles
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Prior to construction
<b>IMPACT C-5</b>	<b>Construction Operations Could Affect Buried Archaeological Sites along the Sweetwater River (Class II)</b>
<b>MITIGATION MEASURE</b>	<b>C-5a: Develop and implement buried sites testing program.</b> Given the high likelihood of buried sites along the Sweetwater River, SDG&E shall determine the potential for buried sites through records searches and a buried sites testing program designed to inventory the presence of buried archaeological deposits. The buried sites testing program shall assess project effects on any cultural resources discovered during testing and shall make recommendations concerning their treatment. Impacts to cultural resources discovered during buried sites testing shall be mitigated to less than significant levels through avoidance or data recovery excavations. Willow Glen Drive may be old enough to qualify as a potential historical resource and will require evaluation as the first phase of the buried sites testing program.
<b>Location</b>	Jamacha Valley 138 kV/69 kV Underground Alternative, in underground route along Willow Glen Drive
<b>Monitoring / Reporting Action</b>	Buried site testing report
<b>Effectiveness Criteria</b>	Previously undetected cultural resources are identified and properly treated
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Prior to construction

## D.4.7 References

- Chartkoff, J. L., and K. K. Chartkoff. 1984. *The Archaeology of California*. Stanford University Press, Stanford.
- Collett, R. O., and D. M. Cheever. 2002. Results of Cultural Resource Survey for the Proposed Miguel-Mission 230 kV #2 Project, San Diego County, California. RECON Environmental, Inc., San Diego, California. Prepared for San Diego Gas and Electric, San Diego, California.
- Davis, J. T. 1974. *Trade Routes and Economic Exchange among the Indians of California*. Reprinted. Ballena Press Publications in Archaeology, Ethnology and History, No. 3, R. F. Heizer, general editor. Ballena Press, Ramona, California. Originally published 1961, University of California Archaeology Survey Report No. 54, Berkeley.
- Jahns, R. H. 1954. "Geology of the Peninsular Range Province, Southern California and Baja California." In *Geology of the Natural Provinces*, edited by R. H. Jahns, Chapter II, pp. 29-52. Bulletin 170, R. H. Jahns, general editor. Department of Natural Resources, California Division of Mines, San Francisco.
- James, G. W. 1912. *In and Out of the Old Missions*. Little, Brown, and Company, Boston.
- Kroeber, A. L. 1976. *Handbook of the Indians of California*. Reprinted. Dover Publications, New York. Originally published 1925, Bulletin 78, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

- Luomala, K. L. 1978. "Tipai-Ipai." In *California*, edited by R. F. Heizer, pp. 592–609. Handbook of North American Indians, vol. 8, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- May, R. V. 1975. "A Brief Survey of Kumeyaay Ethnography: Correlations between Environmental Land-use Patterns, Material Culture, and Social Organization." *Pacific Coast Archaeological Society Quarterly* 11(4):1-25.
- Moratto, M. J. 1984. *California Archaeology*. Academic Press, San Diego.
- Munz, P. A. 1974. *A Flora of Southern California*. University of California Press, Berkeley.
- Rolle, A. F. 1978. *California: A History*. 3rd ed. AHM Publishing, Arlington Heights, Illinois.
- SDG&E (San Diego Gas and Electric). 2003a. Response to Miguel-Mission 230 kV–CPCN Data Request #1. Prepared by Mary I. Turley. Submitted to Tom Murphy, Aspen Environmental Group. May 1.
- SDG&E. 2003b. Response to Miguel-Mission 230 kV–CPCN Data Request #1. Prepared by Mary I. Turley. Submitted to Tom Murphy, Aspen Environmental Group. May 20.
- SDG&E. 2003c. Response to Miguel-Mission 230 kV–CPCN Data Request #1. Prepared by Mary I. Turley. Submitted to Tom Murphy, Aspen Environmental Group. May 27.
- SDG&E. 2003d. Confidential Figure 4-1: Cultural Resources Archaeological Sites Maps, SDG&E Miguel-Mission 230 kV #2. Prepared by RECON Environmental, Inc., San Diego, California. June 5.
- SDG&E. 2002. Miguel-Mission 230 kV #2 Project: Proponent's Environmental Assessment. Prepared by Essex Environmental for SDG&E. Submitted to the California Public Utilities Commission, July 2002.
- San Diego Historical Society. 2004. Time Line of San Diego History. San Diego Historical Society. <http://www.sandiegohistory.org/timeline/timeline1.htm>. Accessed January 24.
- Shipek, F. C. 1982. Kumeyaay Socio-Political Structure. *Journal of California and Great Basin Anthropology* 4(2):296-303.