

D.7 Cultural and Paleontological Resources

This section addresses the Proposed PROJECT, including the Campo, Manzanita, and Jordan wind energy projects, and the potential for impacts to cultural and paleontological resources. Cultural resources include prehistoric and historic-period archaeological sites, Native American traditional cultural properties, and historical buildings and structures. Paleontological resources are fossilized remains of extinct plants and animals. Section D.7.1 provides a description of the existing cultural and paleontological resources setting, and the applicable resource ordinances and limitations are introduced in Section D.7.2. An analysis of project-level impacts is provided in Section D.7.3. Cultural and historical resource impacts related to the project's alternatives are described in Sections D.7.4 through D.7.7. Section D.7.8 provides mitigation monitoring, compliance, and reporting information. Section D.7.9 addresses residual effects of the project, Section D.7.10 lists the references cited in this section.

D.7.1 Environmental Setting/Affected Environment

Archaeological resources include both prehistoric and historic evidence of human activity. Prehistoric resources can include lithic scatters, ceramic scatters, quarries, habitation sites, temporary camps, rock shelters, cairns, rock rings, agave roasting pits, ceremonial sites, and trails. Historical resources can consist of structures (building foundations), historic objects (bottles and cans), and sites (refuse deposits or scatters).

Building and structural sites can vary from historic buildings to canals, historic roads and trails, bridges, ditches, dams, and cemeteries. These resources are generally called "built" environment resources.

Examples of Native American traditional cultural resources or traditional cultural properties (TCPs) include sacred sites, as well as traditional resources of any community that are important for maintaining the cultural traditions of any group (National Register of Historic Places 1990; National Register Bulletin 38). Examples of Native American TCPs include places such as traditional landscapes, sacred mountains, and buildings; or areas where plants are collected for food, medicine, basket weaving, and ceremonial uses. Other examples of TCPs include buildings, parks, neighborhoods, or other places required to maintain contemporary cultural traditions.

Paleontological resources are the fossilized remains, imprints, and/or traces of plant and animal life preserved in rocks and sediments. They can include bones, teeth, soft tissue, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Fossils are generally older than 10,000 years, a temporal boundary marking the end of the glacial Pleistocene Epoch and the beginning of the warmer Holocene Epoch in which we live today. In the San Diego region,

paleontological resources occur in subsurface sedimentary rock layers, although they sometimes may be found in surface outcrops. These resources are limited and nonrenewable because the organisms from which they derive are extinct. Fossils are important scientific and educational resources because they are used to:

- Study the phylogenetic relationships between extinct organisms, as well as their relationships to modern groups
- Elucidate the taphonomic, behavioral, temporal, and diagenetic pathways responsible for fossil preservation, including biases in the fossil record
- Reconstruct ancient environments, climate change, and paleoecological relationships
- Provide a measure of relative geologic dating that forms the basis for biochronology and biostratigraphy, and that is an independent and supporting line of evidence for isotopic dating
- Study the geographic distribution of organisms and tectonic movements of land masses and ocean basins through time
- Study patterns and processes of evolution, extinction, and speciation.

Methodology and Assumptions

ECO Substation Project

Information for the proposed ECO Substation Project compiled in the following sections was gathered from a review of San Diego Gas and Electric's (SDG&E's) Proponents Environmental Assessment (PEA) for the ECO Substation Project (August 2009), the cultural resources technical report prepared by Engineering-Environmental Management (August 2010), the paleontological resource assessment technical report prepared by PaleoServices, Inc. (September 2009), and Native American consultation conducted by Engineering-Environmental Management concurrent with the cultural resources technical report. An inventory of cultural resources occurring within the project study area was conducted by Engineering-Environmental Management. Data collection included the following methods:

- An archaeological site record and archival search was conducted at the South Coastal Information Center (SCIC), San Diego State University (SDSU). The site record and archival search consisted of reviews of archaeological site records and associated cultural resources management reports (technical reports) prepared for projects that overlap portions of the ECO Substation Project area. In addition, a search of the National Archaeological Database (NADB) was conducted to identify previously prepared technical reports for the project area.

- Various maps, including project maps, in addition to United States Geological Survey (USGS) quadrangle maps, were consulted and used to identify cultural resources that have been previously recorded in the vicinity of project components.
- Information gathered from archival research including historic maps was also used to assess the potential for encountering previously unrecorded resources in the ECO Substation project area.
- An intensive pedestrian field survey was conducted for the ECO Substation Project study area (Engineering-Environmental Management, Inc. 2010). The archaeological survey extended beyond the maximum extension for each component. The entire parcel acquired by SDG&E for the substation project was surveyed, covering a little more than 537 acres, as well as a corridor (100 feet; 50 feet on each side of the center line) along the proposed transmission line. The actual acreage needed for the substation will be less than 60 acres. The Boulevard Area of Potential Effect (APE) was also subjected to a Class III survey covering approximately 3 acres. All anticipated impact areas were intensively surveyed in no greater than 15-meter (50-foot) transect spacing. A request for a Sacred Lands File search was sent to the Native American Heritage Commission (NAHC) on July 18, 2008, and subsequent consultation letters were sent to individual tribes on July 29, 2008, seeking additional information regarding cultural resources.

To assess the potential for paleontological impacts, a literature and records review of relevant published and unpublished geologic reports and relevant unpublished museum paleontological data was conducted.

Tule Wind Project

Information for the proposed Tule Wind Project was gathered from a review of Pacific Wind Development's Environmental Document for the Tule Wind Project (Iberdrola Renewables, Inc. 2010) and the Cultural Resources Inventory Report for the Tule Wind Project prepared by ASM Affiliates (ASM Affiliates, Inc. 2010a). A cultural resources records search for most of the Tule Wind Project's APE was conducted by Tetra Tech in 2008. Subsequent changes to the Tule Wind Project resulted in new areas that had not been included in the 2008 Tetra Tech records search. An inventory of cultural resources occurring within these newly added areas was conducted by ASM Affiliates. Data collection for the Tule Wind Cultural Resources Report included the following methods:

- A cultural records search was conducted by Tetra Tech in 2008 at the SCIC, SDSU. The records search, which covered a 1-mile buffer around the project right-of-way (ROW) as defined in 2007, identified 30 previous archaeological investigations. The search revealed 40 previously recorded archaeological sites within the entire proposed ROW boundary.

ASM Affiliates has conducted additional record checks for areas added to the APE since Tech Tech's review (ASM Affiliates, Inc. 2010a).

- In order to satisfy requirements of Section 106 of the National Historic Preservation Act (NHPA) and California Environmental Quality Act (CEQA) that require an inventory and evaluation of cultural resources on lands proposed for development, ASM Affiliates conducted a 100% intensive (Class III) cultural resources inventory of the Tule Wind Project APE. The APE was defined as encompassing: (a) a minimum corridor of 400 feet/120 meters (200 feet/60 meters on each side of centerline) for the turbine strings; (b) a minimum corridor of 150 feet/50 meters (75 feet/25 meters each side of centerline) for new and existing access roads, and overhead and buried transmission lines; and (c) a 100-foot/30-meter buffer around the footprints of staging areas, borrow areas, substations, and other transmission infrastructure. An additional 1,000 feet/300 meters (500 feet/150 meters each side of centerline) was allocated for alternative transmission line corridors south of the project ROW, spanning Interstate 8 (I-8). Together, the APE encompasses 3,570 acres, including 3.6 to 4.1 miles/5.8 to 6.6 kilometers of transmission line.
- An intensive inventory of an approximate 9% sample (Class II) of portions of the non-APE project right-of-way (ROW) was also completed, in accordance with Bureau of Land Management (BLM) Guidelines for renewable energy inventories. An additional 1,000 feet/300 meters (500 feet/150 meters each side of centerline) was allocated for alternative transmission line corridors south of the project ROW, spanning I-8. Sample survey areas with a high probability of containing cultural resources and that could provide survey coverage in parts of the ROW that were not affected by the current were selected for intensive inspection. These high-probability areas included the margins of major drainages and valleys, or near springs, and tended to be located at relatively lower elevations in the study area (ASM Affiliates, Inc. 2010a).
- A total of approximately 4,900 acres was subject to 100% intensive survey, including both APE (3,159 acres) and ROW (1,741 acres) survey areas. A small portion totaling 381 acres in the southeast corner and some access roads on Indian Reservation lands of the APE were not surveyed due to private property access issues. Most of the sampled ROW survey acreage was on BLM land (1,278 acres), with 82 acres on Indian Reservation land, and 365 acres on private property. The APE inventory (including the 381 acres remaining to survey) covers 1,809 acres on BLM land, 167 acres on state land, 172 acres on Indian Reservation land, 5 acres on California Department of Transportation (Caltrans) land, less than 1 acre on County land, and 1,005 acres on private land. All anticipated impact areas were intensively surveyed in no greater than 20-meter (60-foot) transect spacing.

A request for a Sacred Lands File search was sent to the NAHC on September 10, 2009. The NAHC responded on September 15, 2009, and indicated that numerous Native American cultural

resources are located within a one-half-mile radius of the project area. Consultation letters were sent to individual tribes on December 19, 2008, and December 9, 2009, seeking additional information regarding cultural resources. Follow-up phone calls to and site visits with tribal representatives were undertaken. Consultation is ongoing.

ESJ Gen-Tie Project

A Draft Archaeological and Historical Report was prepared for the ESJ Gen-Tie Project by EDAW, Inc. (EDAW), in May 2009 and subsequently updated in November 2009. A record search of cultural resources occurring within the ESJ Gen-Tie Project study area was conducted by Ecology and Environmental, Inc. (E&E), in 2008 and by EDAW in 2009. E&E was originally contracted by the ESJ Gen-Tie Project proponents, Energia Sierra Juarez U.S. Transmission, LLC, in 2007 to conduct the archaeological and historical survey investigation of the ESJ Gen-Tie Project area. In 2009, EDAW was contracted by Energia Sierra Juarez U.S. Transmission, LLC, to conduct surveys of the project's proposed access road ROW and incorporate the E&E survey results into a comprehensive report. Data collection included the following methods:

- An archaeological records search was conducted by E&E at the SCIC, SDSU and by Southeast Information Center (SEIC) staff at the Imperial Valley College Desert Museum on August 29, 2007 (EDAW 2010). The site record and archival search consisted of reviews of archaeological and historical records (including historic maps) and associated cultural resources management reports (technical reports) prepared for past projects occurring within a 1-mile radius of the ESJ Gen-Tie Project study area. Historic maps were reviewed to assess the potential for encountering previously unrecorded resources in the study area.
- A search of the California Register of Historic Resources (CRHR) and the National Register of Historic Places (NRHP) was conducted to identify known significant cultural and historic resources occurring within or adjacent to the ESJ Gen-Tie Project study area.

Multiple Class III, 100% intensive pedestrian surveys covering 69.25 acres of the ESJ Gen-Tie Project study area were conducted in January and March 2008 by E&E, and additional pedestrian surveys covering 2.56 acres of the ESJ Gen-Tie Project's access road ROW alignment were conducted in April 2009 by EDAW (the combined 71.81 acres surveyed by E&E and EDAW constitute the ESJ Gen-Tie Project's APE).

A request for a Sacred Lands File search was sent to the NAHC on March 19, 2009. Individual tribes were contacted by telephone on April 2, 2009, to notify them of the access road ROW alignment surveys and to solicit their participation in identifying cultural resources occurring in the ESJ Gen-Tie Project survey area. A response was received on March 30, 2009, and immediately forwarded to San Diego County at their request to establish government-to-

government consultation. At the request of the County, Mr. Clint Linton, Kumeyaay representative, and Mr. Preston Arrow-weed, Quechan representative, were contacted by telephone on April 2, 2009, to notify them of the survey and solicit their participation; both declined participation in the survey. Mr. Linton and Mr. Arrow-weed were also contacted by telephone on February 3, 2010, to consult regarding the testing program and findings. Mr. Linton declined participation and, as a result of the discussion with Mr. Arrow-weed, EDAW forwarded Mr. Arrow-weed information on the findings, a project description, a location map, and a response form for any additional comments or questions (EDAW, Inc. 2010).

Campo, Manzanita, and Jordan Wind Energy Projects

The Campo, Manzanita, and Jordan wind energy projects are being analyzed at a program level in this EIR/EIS as no site-specific survey data is available. Due to the close proximity of these wind energy projects to the ECO Substation, Tule Wind, and ESJ Gen-Tie projects, a similar cultural and paleontological resources setting is assumed.

D.7.1.1 General Overview

Natural Setting

The Proposed PROJECT study area is generally located within the Peninsular Range province, a geographic and physiographic unit occupying the southeastern corner of California and stretching into the Baja California peninsula. The Peninsular Range province is characterized by northwesterly trending ridges and valleys that run northwards before terminating at the east-west-oriented Traverse Ranges (Engineering-Environmental Management, Inc. 2010). Rocks common in the province include a variety of sedimentary, volcanic, and metamorphic types. Sedimentary strata are highly caustic; volcanic rocks include the Santiago Peak metavolcanic stone, which is highly desirable for the creation of flaked stones tools.

The Proposed PROJECT study area primarily traverses undeveloped land within southeastern San Diego County (County). Scattered pockets of rural residential development and several small rural communities including Jacumba and Boulevard are located in the general vicinity of the Proposed PROJECT.

Ethnographic Background

The following discussion is derived from the cultural resources technical report prepared in support of the project applicant's application (Engineering-Environmental Management, Inc. 2010).

The Proposed PROJECT area is within the historic territory of the Kumeyaay people. The term Kumeyaay refers to all Yuman-speaking indigenous people residing within the region from the San Dieguito River south to the Sierra Juarez Mountains in Baja California and west of present-day

Salton Sea. The Kumeyaay territory may have been larger prior to European contact, possibly stretching as far north as the San Luis Rey River. The Takic-speaking Luiseno and Cahuilla people live north of the Kumeyaay territory. Other Yuman-speaking indigenous people live east and south of the Kumeyaay territory (Engineering-Environmental Management, Inc. 2010).

Ancestors of the present Kumeyaay may have arrived in southeastern California sometime between 1000 BC and as late as AD 1000. By adding new cultural practices and traditions to the existing landscape, ancestors of the present Kumeyaay likely assimilated with (rather than displaced) earlier human inhabitants of the area (Engineering-Environmental Management, Inc. 2010).

Organized sociopolitically into autonomous bands, each Kumeyaay band controlled a 10- to 30-mile area centered around a water source. Band settlements usually include a larger, main village and several smaller satellite living locations. Satellite living areas were temporary settlements used during seasonal hunting and gathering expeditions. During winter months, bands living in satellite locations would generally return to the main village to live (Engineering-Environmental Management, Inc. 2010).

Residential structures of the Kumeyaay varied according to locality and need. For example, during summer months a substantial structure was not necessary to protect bands from the elements. During these months, a rock shelter or windbreak would be sufficient shelter to protect against the elements. However, in the winter months, the Kumeyaay would build thatched-covered dome or gable homes to better protect against wind, rain, and cold temperatures (Engineering-Environmental Management, Inc. 2010).

The Kumeyaay band sought leadership in a clan chief and an assistant to the chief. The title of chief was typically inherited although clan consensus could be used to select the next chief. The clan chief, who was usually blessed with a strong personality and social skills, resolved disputes, advised others regarding marriage, appointed leaders for seasonal gathering expeditions, and led clan ceremonies (Engineering-Environmental Management, Inc. 2010).

The hunting and gathering regime of the Kumeyaay was fairly typical of indigenous California people and was based on readily available terrestrial and aquatic resources. The Kumeyaay diet placed a strong emphasis on acorns, piñons, and other wild plant foods. Meat was also an important element of the Kumeyaay diet. Small game such as rabbits, squirrels, and reptiles were popular targets for Kumeyaay hunters. For those bands living near the coast, marine resources such as shellfish, fish, birds, and sea mammals were an important component of the coastal diet (Engineering-Environmental Management, Inc. 2010).

Extensive trade networks between neighboring tribes allowed for the movement of goods and information across a diverse geographic area. Evidence suggests that the Kumeyaay had stronger

trade relationships with neighboring tribes to the east than with those to the north and south, most likely a result of the different types of goods available in the coastal and inland areas (Engineering-Environmental Management, Inc. 2010). Popular trade items from coastal areas included acorns, dried seafood, and ornamental marine shells. These items were often traded for popular goods from inland areas including salt, gourd seeds, and mesquite beans.

Although contact between Kumeyaay and Europeans began in 1542, sustained cultural interaction did not develop until the founding of the San Diego Mission Alcalá in 1769. Spanish colonization did affect Kumeyaay culture; however, the impact to the Kumeyaay sociopolitical structure was much more apparent. Kumeyaay living closest to the Spanish missions were severely impacted by Spanish colonization while those living in remote areas were able to preserve their traditions and practices for a longer time (Engineering-Environmental Management, Inc. 2010).

The end of the nineteenth century saw most of the Kumeyaay people removed from their lands, living on reservations, and assimilated into Euro-American society. Employment for the Kumeyaay was hard to come by. More often than not, the Kumeyaay worked in mines or on ranches and were paid very little. Some Kumeyaay supplemented their meager wages with traditional subsistence activities in order to survive (Engineering-Environmental Management, Inc. 2010).

The Kumeyaay have struggled and diligently worked toward maintaining their autonomy and sovereignty. The Kumeyaay culture is currently thriving; the people are represented by federally recognized tribes with reservations located throughout San Diego County. Approximately 20,000 Kumeyaay descendants currently live in San Diego County, and approximately 10% live on one of the 18 Kumeyaay reservations (Engineering-Environmental Management, Inc. 2010).

A number of ethnographic locations and possible TCPs have been identified in the proposed project vicinity, including Jacumba Hot Springs, Round Mountain, Jacumba Valley, Jacumba Peak; clay sources for ceramics in Jewell Valley, various trails; and various sources for cordage and other resources. These TCPs, however, are outside of the Proposed PROJECT APE (Engineering-Environmental Management, Inc. 2010).

Prehistoric Setting

The following discussion is derived from the cultural resources technical report prepared in support of the project applicant's application (Engineering-Environmental Management, Inc. 2010).

Archaeological evidence of human use and occupation in southeastern San Diego County spans thousands of years of prehistory. Regional sites within the region date to the early Holocene (9,000–7,500 years ago). These earliest sites are known as the San Dieguito complex because the

initial investigation of this culture occurred along the San Diego River. Archaeological remains of the San Dieguito complex consist of large, stemmed projectile points and finely made scraping and chopping tools used for hunting and processing game (Engineering-Environmental Management, Inc. 2010). Stone tools from this complex feature a high degree of workmanship and exhibit thoughtful material selection. Leaf-shaped blades are common knife forms in this complex. Specific hafting and delivery systems with these artifacts are debated, but most likely they included hardened foreshafts attached to atlatl darts and lances (Engineering-Environmental Management, Inc. 2010). It is possible that bows were used; however, the mass of the projectiles associated with the complex suggests that the use of bows was rare.

The San Dieguito complex was followed by the La Jolla complex (7,500–2,000 years ago). Sites within the period generally include millingstone implements and shell middens near lagoons and sloughs. The La Jolla period saw a shift from hunting to a more generalized subsistence existence relying on a large range of resources. During this period, the number of sites increased (compared with the San Dieguito complex), and sites are found across a greater range of environmental areas (Engineering-Environmental Management, Inc. 2010).

La Jolla period sites are commonly associated with stone tools, shell middens, and human burials with grave offerings. Cogstones and discoidals are sometimes found in human burial assemblages. Flaked stone assemblages from La Jolla sites typically contain a greater number of battering and crushing implements, have less emphasis on fine cutting edges, and have a lower number of bifacially worked knives and unifacially worked scrapers/cores.

The origin of the La Jolla complex is somewhat unclear. While some researchers suggest that the La Jolla complex developed out of the San Dieguito complex, others feel the two cultures coexisted. Regardless of origin, the archaeological remains of the two cultures differ and indicate dissimilar subsistence strategies. Generally, the San Dieguito complex focused on hunting while the La Jolla complex focused on foraging. Regional variations of the San Dieguito and La Jolla complexes are found in the inland areas of San Diego County. The Pauma complex, for example, was initially thought to be a distinct archaeological culture, but it is not identified as a regional variation of the La Jolla complex (Engineering-Environmental Management, Inc. 2010).

The Yuman complex (1,300–200 years ago) is identified as a time of cultural transformation. Yuman-speaking people moved into the San Diego area about 1,000 years ago. Archaeological resources of the later Yuman complex include small projectile points, ceramic vessels, and mortars. In addition to earlier subsistence patterns, the acorn was an important component of the Yuman diet (Engineering-Environmental Management, Inc. 2010).

The Proposed PROJECT study area is located within the semiarid climate of southeastern San Diego County and features a distinct annual pattern of rain and few reliable sources of potable

water. Within San Diego County, archaeological sensitive areas are usually found in the coastal zones and mouths of canyons at the confluence of streams due to traditional settlement patterns of indigenous people. Other sensitive areas are found throughout the County, usually near water sources. The agave roasting pit is a common archaeological feature in eastern San Diego County. According to the Canebreak Canyon archaeological model (Kumeyaay), agave roasting pits include (a) a basal layer of rocks underlying the coals, (b) a large central rock, (c) large rocks lining the pit walls and reaching from the pit base to the ground surface, and (d) no rocks overlying the coals (Engineering-Environmental Management, Inc. 2010).

A number of agave roasting pits are located within the vicinity of the Proposed PROJECT, including at the proposed ECO Substation site. The clustering of these pits is likely a result of the location of plants that were collected and prepared in the pits (Engineering-Environmental Management, Inc. 2010).

Historical Setting

The following discussion is derived from the cultural resources technical report prepared in support of the project applicant's application (Engineering-Environmental Management 2010). The San Diego historic period began with the landing of Juan Rodriguez Cabrillo at Point Loma on September 28, 1542. After the Cabrillo landing, Spain sent several expeditions to explore the Alta California coast, but beyond the coast, little interest in the region existed. It wasn't until the 1760s when Russia began to threaten Spanish holdings in Alta California that the Spanish government began planning for the colonization of Alta California (Engineering-Environmental Management, Inc. 2010).

A four-pronged expedition was initially planned by the Spanish to establish their first settlement in Alta California at San Diego. Two expeditions were to arrive by sea and two were to arrive by land. The expeditions departed for San Diego in 1769 from their various locations. The expeditions all reached San Diego, and a third supply ship was dispatched to join the four groups but was lost at sea. With four expeditions now in San Diego, the colonists established the Mission San Diego de Alcalá on July 16, 1769, at the present-day Presidio Park location. The original setting eventually proved unsuccessful and the Mission was moved to its present day location. The Presidio remained on a hillside overlooking Old Town San Diego and the mouth of the San Diego River and eventually fell into disrepair (Engineering-Environmental Management, Inc. 2010).

For the next 50 years after the establishment of the Mission San Diego de Alcalá, mission influence increased in the region. Within this timeframe, Mission San Luis Rey de Francia (June 13, 1798) and a dam and flume in Mission Gorge (1818) were both established (Engineering-Environmental Management, Inc. 2010).

The conversion of the indigenous Kumeyaay people to Christianity was part of the colonization goals of the Spanish missionaries. Mission priests worked diligently to gather as many Kumeyaay as possible in the mission. Once the Kumeyaay were within the mission walls, they were essentially held captive and forced to work, all the while receiving religious instruction from priests. Mission influence was devastating to the Kumeyaay culture. The reorganization of the Kumeyaay sociopolitical structure alienated the Kumeyaay from their traditional subsistence practices and customs. At the missions, the Kumeyaay were exposed to European diseases for which they had no immunity and many died (Engineering-Environmental Management, Inc. 2010).

Mexico won its independence from Spain in 1821 and thereafter the California missions were secularized. Between 1833 and 1845, immense church holdings were divided up into land grants by the Mexican government. The El Cajon Valley and nearby areas were developed with ranches, farms, and dairies as early as the 1840s. This period of development is typically referred to as the rancho era (Engineering-Environmental Management, Inc. 2010).

The rancho era in Alta California was ultimately short lived. In 1848, the California territory was ceded to the United States as part of the Treaty of Guadalupe Hidalgo, which ended the U.S.–Mexico War. Growth in the area flourished under U.S. rule. Gold rushes, land booms, and railroad development all attracted early American settlement in the region. The creation of San Diego County and the incorporation of the City of San Diego both occurred in 1850. From 1850 to 1870, population growth in the County and City increased and was still growing by the late 1800s, leading to the establishment of a number of outlying communities around old ranchos and land grants (Engineering-Environmental Management, Inc. 2010).

San Diego County remained mostly rural through the early twentieth century. The region changed rapidly following World War II when migration to the region intensified and development increased. Today, much of the coastal and inland areas are developed. Eastern San Diego County remains one of the few underdeveloped areas in the County. The remote location of the project area is evident by a general undeveloped appearance, featuring a number of unpaved access roads, informal shooting ranges, and debris piles (Engineering-Environmental Management, Inc. 2010).

Paleontological Setting

The ECO Substation, Tule Wind and ESJ Gen-Tie projects are located within the Peninsular Range Geomorphic Province, a region primarily characterized by late Mesozoic (approximately 120 to 85 million years old), plutonic igneous rocks of the Peninsular Ranges Batholith and early Mesozoic (approximately 230 million years old), metasedimentary rocks of the Julian Schist and related pre-batholithic rocks (PaleoServices, Inc. 2009). The geologic setting of the Jacumba Valley and Table Mountain Area features several mid-Cenozoic (18 million years old)

sedimentary and volcanic rocks that have been preserved with a series of northwest-trending faults (SDG&E 2009).

Numerous paleontological collecting sites are recorded from the Table Mountain Formation as exposed at Table Mountain, in the deeply eroded hillsides between Round Mountain and Jacumba Peak, and in roadcuts along Carrizo Gorge Road on the north side of Jacumba Valley. These fossil remains were discovered in spite of the widespread coverage of local bedrock outcrops by surficial soils, slopewash, and native vegetation. Fossils recovered from the Table Mountain Formation consist of bones and teeth of land mammals, including rodents, rabbits, and camels (PaleoServices, Inc. 2009).

D.7.1.2 Record Search and Survey Results

ECO Substation

ECO Substation 500-kilovolt (kV) and 230/138 kV Yards

Two cultural resource studies have been conducted that include the ECO Substation project area (Engineering-Environmental Management, Inc. 2010). These studies include survey coverage of land associated with the previously completed SWPL transmission line. The records search indicated that there are five previously recorded sites located within the proposed ECO Substation APE: CA-SDI-2720, CA-SDI-6115, CA-SDI-7074, CA-SDI-7079; and CA-SDI-7082 (five other sites were identified outside of the APE but would not be impacted by the project) (Engineering-Environmental Management, Inc. 2010). These are summarized in Table D.7-1.

Table D.7-1
Previously Recorded Sites within the Proposed ECO Substation Project APE

Site Number	Site Description	Date Recorded
CA-SDI-2720	Unknown, as no site record data exists	Prewitt 1964
CA-SDI-6115	18 agave roasting pits with a sparse prehistoric ceramic and flaked lithic scatter	Unknown 2006
CA-SDI-7074	Widespread, low-density stone tool flake scatter, with two small concentrations of stone tool flakes and pottery fragments; grinding stones and bedrock milling features	Moore 1979b
CA-SDI-7079	Includes CA-SDI-7080 and -7081; a large, surface lithic scatter with cores, and historic trash can dump	Moore 1979b; Crotteau 1979
CA-SDI-7082	Low-density lithic scatter	Crotteau 1979

The substation yards area was surveyed by Engineering-Environmental Management, Inc., in February and March 2008. Two previously recorded sites (CA-SDI-2720 and CA-SDI-6115) within the APE were revisited. Although survey conditions were favorable (i.e., sufficient

ground surface visibility to identify any potential artifacts and/or features), no cultural materials were observed within the surrounding area of CA-SDI-2720. CA-SDI-6115 was relocated; however, no specific agave roasting pits were observed. This inability to relocate previously recorded sites may be a function of techniques used when the sites were originally mapped relative to systematic global positioning systems currently used. Because no evidence of prehistoric activity was observed, the two previously recorded archaeological sites CA-SDI-2720 and CA-SDI-6115 are not considered “historic resources,” pursuant to NRHP and CRHR eligibility criteria (Engineering-Environmental Management, Inc. 2010).

The preliminary NRHP and CRHR eligibility assessments provided herein are not formal determinations; instead, they are but preliminary recommendations based on surface observations of site character and the potential for buried deposits (See Sections D.7.2.1.1 and D.7.2.1.2 for a discussion of federal and state regulatory frameworks, respectively). These preliminary recommendations also include proposals for supplemental investigation that would be required to complete formal assessments of NRHP and CRHR eligibility at archaeological sites documented within the Proposed PROJECT area. Furthermore, formal determinations of the NRHP and CRHR eligibility are contingent on the BLM’s NHPA Section 106 consultations, which are ongoing (Iberdrola Renewables, Inc. 2010).

The archaeological sites CA-SDI-7074, CA-SDI-7079, and CA-SDI-7082 have not been systematically evaluated for significance. Based on the distribution of surface artifacts, CA-SDI-7074 has a limited potential for subsurface materials (Engineering-Environmental Management, Inc. 2010). Therefore, it is considered potentially eligible for listing on the NRHP as a “historic property” and CRHR as “historical resource” (CEQA Guidelines Section 15064.5) under Criterion D, because the sites may be “likely to yield information important to prehistory or history” (Engineering-Environmental Management, Inc. 2010). Additionally, CA-SDI-7074 may be a “unique archaeological resource” as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event. Therefore, the site is considered a potentially significant cultural resource. In contrast, distributions of CA-SDI-7079 and CA-SDI-7082 surface artifacts suggest that they do not have subsurface depth or represent more than an isolated, ephemeral prehistoric occupation (Engineering-Environmental Management, Inc. 2010). They therefore do not appear potentially eligible for listing on the NRHP as a “historic property” and CRHR as “historical resource” (CEQA Guidelines Section 15064.5) under Criterion D, because the sites are not “likely to yield information important to prehistory or history.” The sites would not be a “unique archaeological resource” as defined by CEQA Statutes Section 21083.2(g), because they do not contain information needed to answer

important scientific questions. Therefore, the sites are not considered potentially significant cultural resources.

The project APE was intensively surveyed for evidence of additional, unrecorded archaeological sites, features, and isolates. The survey identified 16 previously unknown sites. Five of these sites, CA-SDI-19618, -19619, -19621, -19622, and -19627, are within the project APE.

Table D.7-2
New Sites and New Isolates within the Proposed ECO Substation Project

Site Number	Site Description
CA-SDI-19618	Small, sparse density scatter of approximately 10 stone tool flakes with no apparent subsurface depth or deposit.
CA-SDI-19619	Small historic trash dump scatter with no apparent subsurface depth or occupation deposit.
CA-SDI-19621	Sparse surface scatter of prehistoric stone tool artifacts and flakes, groundstone, and ceramics. Small historic metal can trash scatter. No apparent subsurface depth is associated with either prehistoric or historic-era deposit.
CA-SDI-19622	Sparse prehistoric stone tool flake scatter and one piece of ceramics, with no apparent subsurface depth or deposit.
CA-SDI-19627	Large site with variable density of stone tool artifact scatter with multiple dense historic refuse loci. Portions of the site may have limited subsurface deposits or depth.

Source: Engineering-Environmental Management, Inc. 2010.

Of these sites, only CA-SDI-19627 appears to have the potential for substantial subsurface deposits, within two areas that have higher artifact concentrations (Engineering-Environmental Management, Inc. 2010). Therefore, of the archaeological sites recorded during the intensive survey, only CA-SDI-19627 is considered potentially eligible for listing on the NRHP as a “historic property” and CRHR as “historical resource” (CEQA Guidelines Section 15064.5) under Criterion D, because it may be “likely to yield information important to prehistory or history” (Engineering-Environmental Management, Inc. 2010). Additionally, CA-SDI-19627 may be a “unique archaeological resource” as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and it may be directly associated with a scientifically recognized, important prehistoric event. Therefore, CA-SDI-19627 is considered a potentially significant cultural resource.

In contrast, distributions of CA-SDI-19618, -19619, -19621, -19622 surface artifacts suggest that they do not have subsurface depth or represent more than an isolated, ephemeral prehistoric occupation (Engineering-Environmental Management, Inc. 2010). These sites therefore do not appear potentially eligible for listing on the NRHP as a “historic property” and CRHR as “historical resource” (CEQA Guidelines Section 15064.5) under Criterion D, because the sites

are not ~~likely~~ to yield information important to prehistory or history.” The sites would not be a ~~unique~~ archaeological resource” as defined by CEQA Statutes Section 21083.2(g), because they do not contain information needed to answer important scientific questions. Therefore, the sites are not considered potentially significant cultural resources.

In addition, two isolates (P-37-029403 and P-37-029404) were identified during the intensive survey. P-37-029403 is a fine-grained metavolcanic scrapper with 50% cortex remaining and flake scars along a modified edge. P-37-029404 is a coarse-grained metavolcanic scrapper with 50% remaining and flake scars along a modified edge. The isolated finds are by definition not sites and are not eligible for inclusion in the NRHP. Because isolates are not NRHP-eligible, they are not historic properties under Section 106 of the NHPA, and no further work is necessary. The isolated finds also are not eligible for inclusion in the CRHR, because they do not address any of the listing criteria (A, B, C, or D). Additionally, the isolated finds are not ~~unique~~ archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they do not contain information needed to answer important scientific questions; there is no demonstrable public interest in that information; they have no special and particular quality, such as being the oldest of its type or the best available example of its type; and they are not directly associated with a scientifically recognized important prehistoric or historic event or person.

SWPL Loop-In

The records search conducted for the 7.74-acre proposed Southwest Powerlink (SWPL) Loop-In site identified two previously completed cultural resource studies covering the project area that addressed the proposed ECO Substation 500 kV and 230/138 kV yards site. No archaeological sites were identified within the SWPL Loop-In APE. Three other sites were identified outside of the APE, but would not be impacted by the project (Engineering-Environmental Management, Inc. 2010).

The SWPL Loop-In area was surveyed by Engineering-Environmental Management, Inc., in February and March 2008. Two previously recorded sites within the project site, CA-SDI-7073 and CA-SDI-7083, were revisited. Although survey conditions were favorable (i.e., sufficient ground surface visibility to identify any potential artifacts and/or features), neither site was relocated, and no cultural materials were found at or in the area surrounding the sites. This inability to relocate previously recorded sites may be a function of techniques used when the sites were originally mapped relative to systematic global positioning systems currently used. Because no evidence of prehistoric activity was observed, the two previously recorded archaeological sites CA-SDI-7073 and CA-SDI-7083 are not considered ~~historic properties~~ pursuant to NRHP and ~~historic resources~~ pursuant to CRHR eligibility criteria.

138 kV Transmission Line

The records search indicated 25 cultural resource studies within the transmission line corridor (Engineering-Environmental Management, Inc. 2010). The previously prepared studies date back to 1974 and include survey coverage for a variety of development projects including the SWPL transmission line project, substations, private development, roadways, trails, and campgrounds. A total of 31 previously recorded sites identified within the transmission line corridor are listed in Table D.7-3.

Table D.7-3
Previously Recorded Sites within the Proposed ECO Substation
138 kV Transmission Line Corridor

Site Number	Site Description	Date Recorded
P-37-024023	Segment of Historic U.S. Highway 80	Lortie 2000
CA-SDI-176 Update	Bedrock milling features with dense flaked lithic scatter	Hector et al. 2006
CA-SDI-7011H	Early twentieth century homestead with associated historic artifacts	Burkenroad 1979
CA-SDI-7015H	Segment of San Diego and Arizona Eastern Railroad	Burkenroad 1979
CA-SDI-7027	Sparse flaked lithic scatter	Dominici 1979
CA-SDI-7030	Flaked lithic scatter with historic garbage dump	Donovan 1979
CA-SDI-7037	Sparse flaked lithic scatter	Moore 1979
CA-SDI 7040	Sparse flaked lithic scatter	Dominici 1979
CA-SDI-7046	Quartz quarry and sparse flaked lithic scatter	Townsend 1978
CA-SDI-7051	Temporary camp with rock shelter, bedrock milling, and moderate flaked lithic and prehistoric ceramic scatter	Donovan 1979
CA-SDI-7053/H Update	Historic road segment and historic can dump with sparse flaked lithic scatter	Hector et al. 2006
CA-SDI-7055	Quarry and sparse flaked lithic scatter	Townsend 1978
CA-SDI-7056	Moderate flaked lithic scatter	Crotteau 1979
CA-SDI-7059	Temporary camp with rock shelter, bedrock milling, and moderate flaked lithic and prehistoric ceramic scatter	Crotteau 1979
CA-SDI-7060	Temporary camp with moderate flaked lithic and prehistoric ceramic shelter	Donovan 1979
CA-SDI-7063	Temporary camp with rock shelter, moderate flaked lithic scatter, sparse ground stone and prehistoric ceramic scatter	Moore 1979
CA-SDI-7069	Sparse flaked lithic scatter	Moore 1979
CA-SDI-7072	Sparse flaked lithic scatter	Burkenroad 1979
CA-SDI-7079	Sparse flaked lithic scatter	Moore 1979
CA-SDI-7080H	Historic can dump	Townsend 1978

Table D.7-3 (Continued)

Site Number	Site Description	Date Recorded
CA-SDI-7085	Base camp with large milling complex, moderate flaked lithic scatter, and sparse prehistoric ceramic scatter	Crotteau 1979
CA-SDI-7086	Sparse flaked lithic and prehistoric ceramic scatter	Townsend 1978
CA-SDI-7951	Quarry and moderate flaked lithic scatter	Donovan 1979
CA-SDI-8315	Sparse flaked lithic scatter and fallen stone monument	Johnson 1980
CA-SDI-8316	Sparse flaked lithic scatter	Johnson 1980
CA-SDI-8430	Sparse flaked lithic scatter	Van Horn & White 1988
CA-SDI-8431	Sparse flaked lithic scatter	Goldberg 1980
CA-SDI-8432	Bedrock milling feature and sparse flaked lithic scatter	Goldberg 1980
CA-SDI-9156	Sparse flaked lithic scatter	Townsend 1978
CA-SDI-9278H	Historic well and corral with metal, glass, and wood artifacts	Donovan 1979
CA-SDI-9279	Sparse prehistoric ceramic scatter	Donovan 1979

Source: Engineering-Environmental Management, Inc. 2010.

The 138 kV transmission line corridor was intensively surveyed by Engineering-Environmental Management, Inc., in June, July, August, and October 2008. Of the 31 previously recorded sites, 15 sites were relocated during the 2008 field surveys. Although survey conditions were favorable (i.e., sufficient ground surface visibility to identify any potential artifacts and/or features), 16 of the sites were not relocated. This inability to relocate previously recorded sites may be a function of techniques used when the sites were originally mapped relative to systematic global positioning systems currently used. Five new sites and three isolates were identified during the current field study for the 138 kV transmission line corridor. Most of the newly identified sites and locations are within the segment of the transmission corridor that passes through the Jacumba Valley Ranch property. The five newly discovered sites appear to be surface scatters of debitage with some formal stone tools. Table D.7-4 lists the new sites and isolates discovered during the field survey of the proposed 138 kV transmission line.

Table D.7-4
New Sites and New Isolates within the Proposed ECO Substation Project
138 kV Transmission Line Corridor

Site Number	Site Description
CA-SDI-19066	Moderate density scatter of stone artifacts consisting of approximately 60 fine- and coarse-grained metavolcanic flakes, three fine-grained metavolcanic cores, two coarse-grained metavolcanic cores, and one fine-grained metavolcanic hammerstone scatter
CA-SDI-19068	Moderate density surface scatter of debitage consisting of approximately 50 fine- and coarse-grained metavolcanic flakes
CA-SDI-19069	Sparse surface scatter of debitage consisting of 10 fine-grained metavolcanic flakes
CA-SDI-19070	Sparse surface scatter or debitage consisting of three fine-grained metavolcanic flakes
P-37-029818	Two fine-grained porphyritic metavolcanic core reduction flakes with cortex
P-37-030190	Large, porphyritic metavolcanic primary flake with about 15% remaining cortex
P-37-030191	Porphyritic metavolcanic scraper with 25% remaining cortex and four areas showing edge retouch

Source: Engineering-Environmental Management, Inc. 2010.

The five newly recorded prehistoric sites have not been evaluated for significance. However, they are considered potentially eligible for listing on the NRHP as “historic properties” and CRHR (CEQA Guidelines Section 15064.5) as “historic resources” under Criterion D, because the sites may be “likely to yield information important to prehistory or history.” The historic-period sites may also be eligible for listing on the NRHP and the CRHR under Criterion A, because they may be associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage. Additionally, the sites may be “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event. Therefore, these sites are considered potentially significant cultural resources.

The isolated finds (P-37-029818, -030190, and -030191) are by definition not sites and are not eligible for inclusion in the NRHP. Because isolates are not NRHP-eligible, they are not historic properties under Section 106 of the NHPA, and no further work is necessary. The isolated finds also are not eligible for inclusion in the CRHR as “historic resources,” because they do not address any of the listing criteria (A, B, C, or D). Additionally, the isolated finds are not “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they do not contain information needed to answer important scientific questions; there is no demonstrable public interest in that information; they have no special and particular quality, such as being the oldest of its type or the best available example of its type; and they are not directly associated with a scientifically recognized, important prehistoric or historic event or person.

The pedestrian survey for the 138 kV transmission line corridor was conducted within a 300-foot-wide corridor. In some instances, staked pole locations were located within the boundary of previously recorded sites. The previously recorded sites that correspond with the staked pole locations are identified as follows (Engineering-Environmental Management, Inc. 2010):

- Pole 96 is staked within the boundary of the previously recorded site CA-SDI-7086. During the survey, flaked lithic artifacts and prehistoric ceramics were observed on the surface in the general vicinity of the field stake marked SP-96. The current conditions consist of a sparse flaked lithic artifact and prehistoric ceramic scatter.
- Pole 97 is staked at the boundary of the previously recorded site CA-SDI-7053/H. During the recent field survey, the site was found to be a sparse flaked lithic artifact scatter in an area measuring approximately 30 meters by 30 meters. The historic dump and road segment were not relocated within the APE.
- Pole 99 is staked within the boundary of the previously recorded site CA-SDI-7063. This site was relocated at the recorded coordinates during the most recent field survey. A rock shelter, single bedrock mortar, and sparse flaked lithic artifact and prehistoric ceramic surface scatter constitute the current site components.
- Pole 101 and Pole 102 are staked within the boundary of the previously recorded site CA-SDI-7059. During the recent field survey, the site was relocated. A sparse flaked lithic artifact and prehistoric ceramic scatter, as well as a bedrock milling feature were observed. The previously identified rock shelter was not identified during the recent field survey. Extensive modern site disturbance was identified throughout the site (Engineering-Environmental Management, Inc. 2010).

Based on the extremely sparse nature of the artifact scatters noted at the previously listed sites, it is likely that these prehistoric sites are not potentially eligible for listing on the NRHP as “historic properties” and CRHR as “historic resources” (CEQA Guidelines Section 15064.5) under Criterion D, because the sites are not “likely to yield information important to prehistory or history.” Additionally, the sites do not appear to be “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event. Therefore, these sites are not considered potentially significant cultural resources.

An early twentieth-century homestead (CA-SDI-7011H) and a historic well and corral with associated artifacts (CA-SDI-9278H) along the 138 kV transmission line alignment have not been evaluated for significance. However, they are considered potentially eligible for listing on the NRHP as “historic properties” and CRHR (CEQA Guidelines Section 15064.5) as “historic

resources” under Criterion D, because the sites may be “likely to yield information important to prehistory or history.” The historic-period sites may also be eligible for listing on the NRHP and the CRHR under Criterion A, because they may be associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage. Additionally, the sites may be “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized important prehistoric event. Therefore, these sites are considered potentially significant cultural resources.

A segment of historic U.S. Highway 80, site number P-37-024023, has been determined to be eligible for listing on the NRHP as a “historic property” and on the CRHR (CEQA Guidelines Section 15064.5) as a “historic resource” under Criterion A, because it is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage. None of the other sites listed in Table D.7-4 have been evaluated for significance. However, they are considered potentially eligible for listing on the NRHP “historic property” and as a “historic resource” on the CRHR (CEQA Guidelines Section 15064.5) under Criterion D, because the sites may be “likely to yield information important to prehistory or history.” The historic-period sites may also be eligible for listing on the NRHP and the CRHR under Criterion A, because they may be associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage. Additionally, the sites may be “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized important prehistoric event. Therefore, these sites are considered potentially significant cultural resources (Engineering-Environmental Management, Inc. 2010).

Boulevard Substation Rebuild Site

The records search conducted for the Boulevard Substation Rebuild site indicated that only a small portion of the site and general vicinity have been previously surveyed. According to the SCIC, there is a record for one survey report within the study area for the Boulevard Substation Rebuild site (Engineering-Environmental Management, Inc. 2010). No cultural resources have been previously recorded within the Boulevard Substation APE.

The Boulevard Substation Rebuild site was carefully inspected for surface evidence of cultural resources including archaeological materials such as ceramics, debitage, ground stone, formal flaked-stone implements, agave roasting pits, and historic era materials. No cultural resources sites or features were found during the survey, and based on field observations, none are

believed to be present at or in the vicinity of the site (Engineering-Environmental Management, Inc. 2010).

Tule Wind Project

Tetra Tech completed a records search and literature review for the Tule Wind Project in 2008 (Farrell 2008). The records search was conducted at the SCIC, SDSU. The records search, which covered a 1-mile buffer around the project ROW as defined in 2008, identified 30 previous archaeological investigations. The search identified a total of 39 previously recorded archaeological sites within the 2008 ROW (151 previously recorded archaeological sites were outside the ROW but within a 1-mile buffer of the ROW) (ASM Affiliates, Inc. 2010a). The southernmost extent of the current project APE was not included in the original Tetra Tech records search, thus requiring an additional records search for the current study. A supplemental records search conducted by ASM Affiliates in 2009 at the South Coastal Information Center (SCIC) resulted in the identification of seven sites within the APE (14 additional sites were within a 1-mile radius) (ASM Affiliates, Inc. 2010a).

Table D.7-5 lists the previously recorded archaeological sites documented during the two records searches.

Table D.7-5
Previously Recorded Sites within the Proposed Tule Wind Project APE and ROW

Trinomial	Last update to record	NRHP Status	Age	Type	In APE or ROW	Description
CA-SDI-10328	1979	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Lithic and Tizon Brown pottery scatter (4 items)
CA-SDI-10329	1979	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Lithic and Tizon Brown pottery scatter (4 items)
CA-SDI-10360	1979	Not evaluated	Prehistoric	Milling feature and artifact scatter	ROW	Bedrock milling station with lithic and pottery scatter
CA-SDI-1150	1969	Not evaluated	Prehistoric (Late Period)	Milling stations and lithic scatter	ROW	Bedrock milling features and lithic scatter
CA-SDI-2729	1976	Recommended eligible	Prehistoric	Seasonal camp	ROW	Seasonal camp
CA-SDI-2535	1977	recommended eligible	Prehistoric (E. Diegueno of the Yuman III)	Rock shelter, pictographs	ROW	Rock shelter and pictographs
CA-SDI-2730	1975	Not evaluated	Prehistoric	Possible rock shelter, lithic scatter	ROW	Potential rock shelter with some lithics

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
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Table D.7-5 (Continued)

Trinomial	Last update to record	NRHP Status	Age	Type	In APE or ROW	Description
CA-SDI-2731	2006	Not evaluated	Prehistoric	Lithic scatter	ROW	Lithic scatter
CA-SDI-2732	2006	Not evaluated	Prehistoric	Large village site	ROW	Originally recorded as a large village site. A 2006 attempt to relocate was unsuccessful. Authors suggest site is actually CA-SDI-4009 located several hundred meters to the southwest.
CA-SDI-4009	2006	Not evaluated, potentially eligible	Prehistoric (Late Period)	Seasonal village site	ROW	Seasonal village site and surrounding satellite sites with several bedrock milling features and a lithic and ceramic scatter
CA-SDI-4788	2005	Not evaluated	Prehistoric	Lithic scatter	ROW	Lithic scatter
CA-SDI-5162	N/A	N/A	Prehistoric	Habitation site	ROW	Rock shelter and lithic and pottery scatter
CA-SDI-5171	N/A	N/A	Prehistoric	Habitation site	ROW	Rock shelter and lithic and pottery scatter
CA-SDI-6779	1976	Not evaluated	Prehistoric	Milling stations	ROW	Bedrock milling features
CA-SDI-7150	2006	Not evaluated	Prehistoric (Late Period)	Habitation site	ROW	Rock shelter with a midden, lithic and pottery scatter
CA-SDI-7151	2006	Unknown	Prehistoric (Late Period)	Habitation site	ROW	Rock shelters, habitation site with midden, lithic, and pottery scatter. Site heavily impacted by OHV traffic
CA-SDI-7154	1979	Not evaluated	Prehistoric	Lithic scatter	ROW	Lithic scatter
CA-SDI-7164	1979	recommended eligible	Prehistoric	Habitation site	ROW	Rock shelter with a lithic and pottery scatter
CA-SDI-8388	2006	recommended eligible	Prehistoric	Temporary camp	ROW	Originally recorded as a temporary camp with lithics and pottery. This site was not relocated during ASM's 2006 survey and relocation efforts.
CA-SDI-8684	1981	Not evaluated	Prehistoric	Milling station	ROW	Milling station

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Table D.7-5 (Continued)

Trinomial	Last update to record	NRHP Status	Age	Type	In APE or ROW	Description
CA-SDI-8702	1981	Not evaluated	Prehistoric	Lithic scatter, pottery scatter	ROW	Lithic scatter and pottery scatter
CA-SDI-8703	1981	Recommended eligible	Prehistoric	Habitation site	ROW	Temporary camp, possible fire pit, lithic scatter, and pottery scatter
CA-SDI-8704	1981	Not evaluated	Prehistoric	Artifact scatter	ROW	Lithic scatter and pottery scatter
CA-SDI-8705	1981	Recommended eligible	Prehistoric	Habitation site	ROW	Rock shelters and associated lithic scatter and pottery scatter
CA-SDI-8707	1981	Not evaluated	Prehistoric	Habitation site	ROW	Temporary camp, lithic scatter, and pottery scatter
CA-SDI-8708	1981	Not evaluated	Prehistoric	Milling feature	ROW	Cupule
CA-SDI-8709	1981	Not evaluated	Prehistoric	Milling feature	ROW	Milling station
CA-SDI-8710	1981	Not evaluated	Prehistoric	Habitation site	ROW	Milling station, midden, and pottery scatter
CA-SDI-8711	1981	Not evaluated	Prehistoric	Milling station	ROW	Milling station
CA-SDI-8712	1981	Not evaluated	Prehistoric	Habitation site	ROW	Temporary camp, lithic scatter
CA-SDI-9223	2005	Not evaluated	Prehistoric (Late Period)	Habitation site	ROW	Temporary camp with milling features and a lithic and pottery scatter
CA-SDI-9224	1982	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Lithic scatter, projectile points, and ground stone
CA-SDI-9228	2005	Not evaluated	Prehistoric (Late Period)	Habitation site	ROW	Pottery scatter (Tizon Brown shreds)
CA-SDI-9540	1981	Not evaluated	Prehistoric (Late Period)	Habitation site	ROW	Temporary camp site with midden, lithics, and pottery fragments
P-37-28936	N/A	Not eligible	Prehistoric	Pottery isolate	ROW	Isolated pottery fragment
CA-SDI-09225	1982	Not Evaluated	Prehistoric	Large habitation	APE	Rock shelter, three milling stations, artifact scatter, handstone, millstone, steatite fragment, hammerstone; 30 meters x 15 meters
CA-SDI-16038	1999	Not evaluated	Prehistoric (Late Period)	Milling station	ROW	Bedrock milling feature

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
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Table D.7-5 (Continued)

Trinomial	Last update to record	NRHP Status	Age	Type	In APE or ROW	Description
CA-SDI-16786	2003	Not Evaluated	Historic	Historic trash scatter	APE	Ironstone, metal, glass and bottle fragments. Tested in 2003 and found not significant under CEQA; 106 meters x 45 meters
CA-SDI-16824	2005	Not Evaluated	Historic	Historic homestead	APE	Three foundations, well, trash scatter, which includes purple glass, ironstone, glass, metal cans; 300 feet x 250 feet
CA-SDI-17118	2006	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Sparse lithic and pottery scatter
CA-SDI-17816	2005	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Sparse lithic and pottery scatter. Site condition is poor due to OHV traffic and illicit surface collection.
CA-SDI-17821	2005	Not evaluated	Prehistoric	Historic trash scatter	ROW	Historic refuse dumps
CA-SDI-18050	2005	Not evaluated	Prehistoric (Late Period)	Artifact scatter	ROW	Sparse lithic and pottery scatter and a mano
CA-SDI-18993	2008	Not Evaluated	Historic	Historic trash dump	APE	25–50 cans, 1 ceramic frag, 1–5 glass fragments; likely dating as early as the 1930s
CA-SDI-18994	2008	Not Evaluated	Historic	Historic trash dump	APE	25–50 cans, 1 ceramic frag, 25–50 glass fragments; likely dating as early as the 1930s; 82 feet x 42 feet
CA-SDI-19277	2008	Not Evaluated	Historic	Historic trash dump	APE	10 glass fragments (including SCA, aqua and milk), 12 ceramic fragments, 1 wood stove leg; possibly dating to the late 1800s; 48 meters x 18 meters
CA-SDI-19278	2008	Not Evaluated	Prehistoric	Lithic scatter	APE	Three metavolcanic flakes; 19 meters x 13 meters

Source: ASM Affiliates, Inc. 2010a.

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The 100% survey of the project APE and 9% sample of the ROW were completed by ASM Affiliates between January and July, 2010 (ASM Affiliates, Inc. 2010a). A total of 102 new sites were identified: 68 in the APE survey, while 34 were identified in the ROW sample survey. These are listed in Table D.7-6.

Table D.7-6
New Archaeological Sites Recorded During the Tule Wind Intensive Survey
(APE and ROW)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
<i>APE Eligible Sites (n = 15)</i>						
37-024023	Class III	Intersects BIA, Private, BLM	Existing	Historic	Highway 80	Segments of road are contributing elements to NRHP listing
SDI-10359	Class III	BLM, Private	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-17817	Class III	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-19001/19003	Class III	BLM, Private	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-19018	Class III	BLM	Existing	Prehistoric	Small Habitation	Potentially Eligible
SDI-7150	Class III	BLM	Existing	Prehistoric	Small Habitation	Potentially Eligible
SDI-9223/17816	Class III	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-19364/SPBB-S-1	Class III	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
Tule-BC-35	Class III	Private	New	Prehistoric	Large Habitation	Potentially Eligible
Tule-BC-54	Class III	State, Private	New	Prehistoric	Small Habitation	Potentially Eligible
Tule-CW-11	Class III	Private	New	Prehistoric	Small Habitation	Potentially Eligible
Tule-CW-12	Class III	BLM, Private	New	Prehistoric	Small Habitation	Potentially Eligible
Tule-CW-17	Class III	BLM, Private	New	Prehistoric	Small Habitation	Potentially Eligible
Tule-CW-25	Class III	Private	New	Historic	Home Site	Potentially Eligible
Tule-EP-08	Class III	Private	New	Both	Large Habitation and Historic Home Site	Potentially Eligible

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

Table D.7-6 (Continued)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
<i>APE Ineligible Sites and Sites with Uncertain Eligibility (n = 93)</i>						
SDI-1151	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-4788	Class III	BLM, State, Private	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-6897	Class III	Private	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-6900	Class III	Private	Existing	Both	BMS and HPRD	Likely Ineligible
SDI-9225	Class III	BLM	Existing	Prehistoric	Large Habitation	Likely Ineligible
SDI-16786	Class III	Private	Existing	Historic	HPRD	Likely Ineligible
SDI-16824	Class III	Private	Existing	Historic	HPRD and foundations	Likely Ineligible
SDI-16827	Class III	Private	Existing	Historic	HPRD and structural remains	Uncertain
SDI-17118	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-17119	Class III	BLM	Existing	Prehistoric	Ceramic Scatter	Likely Ineligible
SDI-17815	Class III	BLM	Existing	Prehistoric	Lithic Scatter	Likely Ineligible
SDI-17822 L	Class III	BLM	Existing	Prehistoric	Lithic Scatter	Likely Ineligible
SDI-17829	Class III	BLM	Existing	Prehistoric	Lithic Scatter	Likely Ineligible
SDI-17830	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-18050	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-18054	Class III	BLM	Existing	Prehistoric	Ceramic Scatter	Likely Ineligible
SDI-18993	Class III	Private	Existing	Historic	HPRD	Likely Ineligible
SDI-18994	Class III	Private	Existing	Historic	HPRD	Likely Ineligible
SDI-19000	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19002	Class III	BLM	Existing	Prehistoric	Large Habitation	Likely Ineligible
SDI-19045	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19291	Class III	BLM	Existing	Prehistoric	Ceramic Scatter	Likely Ineligible
SDI-19301	Class III	BLM	Existing	Prehistoric	Small Habitation	Likely Ineligible
SDI-19854 SDGE-BC-6 SPED-S-1	Class III	BLM	Existing	Both	Lithic Scatter and HPRD	Likely Ineligible
SDI-19857 SDGE-BC-9	Class III	Private	Existing	Prehistoric	Lithic Scatter	Likely Ineligible

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

Table D.7-6 (Continued)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
SDI-19860 SDGE-BC-13	Class III	BLM	Existing	Prehistoric	Bedrock Milling Station	Likely Ineligible
SDI-19849 SDGE-BC-37	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19868 SDGE-BW-83	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19869 SDGE-BW-84	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19935 SDGE-BW-128	Class III	BLM	Existing	Prehistoric	Artifact Scatter	Likely Ineligible
SDI-19872 SDGE-BW-130	Class III	Private	Existing	Prehistoric	Lithic Scatter	Likely Ineligible
SDI-19851 SPED-S-5	Class III	Private	Existing	Prehistoric	Lithic Scatter	
Tule-BC-01	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-02	Class III	BLM	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-BC-03	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-04	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-09	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-10	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-12	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-13	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-14	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-15	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-16	Class III	BLM	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-17	Class III	BLM	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-18	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-19	Class III	Private	New	Historic	HPRD	Likely Ineligible
Tule-BC-20	Class III	Private	New	Historic	HPRD	Likely Ineligible
Tule-BC-21	Class III	Private	New	Historic	HPRD	Likely Ineligible
Tule-BC-22	Class III	Private	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-23	Class III	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-BC-24	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-25	Class III	BLM	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-27	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

Table D.7-6 (Continued)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
Tule-BC-28	Class III	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-BC-29	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-30	Class III	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-BC-31	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-32	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-33	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-34	Class III	Private	New	Both	Large Habitation and Historic Home Site	Likely Ineligible
Tule BC-36	Class III	Private	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-39	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-40	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-41	Class III	BLM, Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-42	Class III	State, Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-56	Class III	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-BC-57	Class III	Private	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-58	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-66	Class III	BIA	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-67	Class III	BIA	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-68	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-69	Class III	State	New	Historic	Mining Site	Likely Ineligible
Tule-BC-72	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-73	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-74	Class III	State	New	Historic	Mining Site	Likely Ineligible
Tule-CW-01	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-CW-02/ LD-S-2	Class III	State	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-04	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-CW-05	Class III	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-CW-07	Class III	Private	New	Historic	HPRD	Likely Ineligible
Tule-CW-10	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-15	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-16	Class III	BLM	New	Prehistoric	Lithic Scatter	Likely Ineligible

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

Table D.7-6 (Continued)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
Tule-CW-19	Class III	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-20	Class III	State	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-21	Class III	Private	New	Historic	HPRD	Likely Ineligible
Tule-CW-22	Class III	Private	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-CW-23	Class III	Private	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-CW-24	Class III	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-EP-01	Class III	Private	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-EP-02	Class III	Private	New	Historic	Home Site	Uncertain
Tule-EP-03	Class III	Private	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-EP-07	Class III	Private	New	Historic	HPRD	Likely Ineligible
ROW Sample Eligible Sites (n = 10)						
SDI-4009	Class II	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-4010	Class II	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-7151	Class II	BLM, Private	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-7154	Class II	BLM	Existing	Prehistoric	Small Habitation	Potentially Eligible
SDI-8434	Class II	BIA	Existing	Prehistoric	Large Habitation	Potentially Eligible
SDI-15746	Class II	BLM	Existing	Prehistoric	Large Habitation	Potentially Eligible
Tule-BC-43	Class II	BLM	New	Prehistoric	Large Habitation	Potentially Eligible
Tule-BC-63	Class II	BLM	New	Prehistoric	Artifact Scatter	Potentially Eligible
Tule-CW-03	Class II	BLM	New	Prehistoric	Artifact Scatter	Potentially Eligible
Tule-CW-43	Class II	Private	New	Prehistoric	Small Habitation	Potentially Eligible
ROW Sample Ineligible Sites (n = 33)						
SDI-5162	Class II	Private	Existing	Prehistoric	Small Habitation	Likely Ineligible
SDI-5171	Class II	Private	Existing	Prehistoric	Small Habitation	Likely Ineligible
SDI-9224	Class II	BLM	Existing	Prehistoric	Small Habitation	Likely Ineligible

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES

Table D.7-6 (Continued)

Site	Survey	Landholder	New or Existing?	Age	Site Type*	Potential Eligibility NRHP Status
Tule-BC-05	Class II	BLM	New	Prehistoric	Lithic Scatter	Likely Ineligible
Tule-BC-06	Class II	BLM	New	Historic	HPRD	Likely Ineligible
Tule-BC-07	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-11	Class II	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-44	Class II	BLM	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-BC-46	Class II	BLM	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-BC-47	Class II	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-48	Class II	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-49	Class II	BLM	New	Prehistoric	Small Habitation	Likely Ineligible
Tule-BC-50	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-51	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-52	Class II	Private	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-BC-53	Class II	Private	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-55	Class II	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-BC-59	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-60 Ineligible	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-61	Class II	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-62	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-64	Class II	BIA	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-BC-65	Class II	BIA	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-CW-30	Class II	BLM	New	Prehistoric	Bedrock Milling Station	Likely Ineligible
Tule-CW-31	Class II	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-CW-33	Class II	BLM	New	Prehistoric	Ceramic Scatter	Likely Ineligible
Tule-CW-34	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-35	Class II	Private	New	Historic	HPRD	Likely Ineligible
Tule-CW-36	Class II	Private	New	Historic	HPRD	Likely Ineligible
Tule-CW-40	Class II	BLM	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-41	Class II	Private	New	Historic	Home Site	Likely Ineligible
Tule-CW-42	Class II	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible
Tule-CW-44	Class II	Private	New	Prehistoric	Artifact Scatter	Likely Ineligible

NOTE: * Site Type is defined in Chapter 3; BMS, Bedrock Milling Station; HPRD (Historic Period Refuse Deposit).

Prehistoric sites within the APE and ROW generally consist of lithic and aboriginal ceramic scatters, and habitation sites consist of varying combinations of milling features, artifact scatters, midden deposits, and one or more rock shelters. Based on other previously recorded archaeological sites documented in the records search completed by Tetra Tech (2008), the current sample of historic and prehistoric sites is representative of cultural resources that can be found throughout McCain Valley. Most of the historic sites contain refuse deposits consisting of a scatter of food and beverage containers and other rubbish, or features such as a concrete cistern (Tule-EP-04), a foundation (SDI-16824), and a building (Tule-EP-02). Another historic site (Tule-CW-25) is a historic home site with a historic petroglyph reading “JD 1933.”

Although the intensive archaeological survey described previously is not designed to provide formal NRHP or CRHR eligibility evaluations of archaeological sites as “historic properties” or “historic resources,” respectively, it is possible to estimate a site’s potential eligibility for listing based on surface evidence and ability of the site to address potential research design questions (ASM Affiliates, Inc. 2010a). Of the 38 sites recorded prior to the current intensive survey, seven prehistoric resources including rock shelters with rock art and temporary camps are considered potentially eligible. A total of 152 new sites were identified: 108 in the APE survey, while 43 were identified in the ROW sample. Fifteen archaeological sites within the project APE inventory are considered likely to meet the criteria for NRHP eligibility as “historic properties” and CRHR eligibility as “historic resources.” Thirteen of these are prehistoric sites (either large or small campsites); one is historic-period Highway 80; and two are historic home sites (one site has both prehistoric and historic components) (ASM Affiliates, Inc. 2010a) (see Table D.7-6). Of the 43 archaeological sites identified in the ROW sample inventory, 10 are likely to meet the criteria for NRHP eligibility as “historic properties” and CRHR eligibility as “historic resources”; all of these are prehistoric sites. The remaining 33 sites are either lacking sufficient artifactual density and diversity to suggest substantial subsurface components, or are a historic-era trash scatter that does not contain artifacts that can be associated with a specific historic activity/function, event, or individuals important in the area’s history (ASM Affiliates, Inc. 2010a).

Sunrise-Powerlink Transmission Line Project

SDG&E is in the environmental review process for the construction of its Sunrise-Powerlink transmission line, a portion of which (Link 1, Section 9B) passes through McCain Valley, overlapping the Tule Wind Project footprint in some places. The Sunrise-Powerlink cultural resources inventory documented a number of cultural resources that also fall within the Tule Wind APE and ROW inventory areas, but were recorded subsequent to completion of records searches in 2008 and 2009. Information on the cultural resources recorded during the Sunrise-Powerlink survey were obtained and integrated in the current Tule Wind inventory. Thorough field checks were completed for each previously recorded site. In all, the cultural resources that

overlap the Sunrise-Powerlink and Tule Wind inventories include seven prehistoric archaeological sites and one site with both historic and prehistoric components. Table D.7-7 lists the previously recorded archaeological sites documented during the Sunrise-Powerlink transmission line project. None of the sites have been evaluated for their NRHP eligibility as “historic properties” and CRHR eligibility as “historic resources.”

Table D.7-7
Recorded Archaeological Sites Documented
During the Sunrise-Powerlink Transmission Line Project

Site Designation	Class III or II	Landholder	Source	Age	Site Type	NHRP Status
SDI-19854 SDGE-BC-6	Class III	BLM	SDGE	Both	Lithic Scatter and HPRD	Not Evaluated
SDI-19857 SDGE- BC-9	Class III	SDGE-BC-9 Private	SDG&E	Prehistoric	Lithic Scatter	Not Evaluated
SDI-19860 SDGE-BC-13	Class III	BLM	SDG&E	Prehistoric	Bedrock Milling Station	Not Evaluated
SDI-19849 SDGE-BC-37	Class III	BLM	SDG&E	Prehistoric	Artifact Scatter	Not Evaluated
SDI-19868 SDGE-BW-83	Class III	BLM	SDG&E	Prehistoric	Artifact Scatter	Not Evaluated
SDI-19869 SDGE-BW-84	Class III	BLM	SDG&E	Prehistoric	Artifact Scatter	Not Evaluated
SDI-19935 SDGE-BW-128	Class III	BLM	SDG&E	Prehistoric	Artifact Scatter	Not Evaluated
SDI-19872 SDGE-BW-130	Class III	Private	SDG&E	Prehistoric	Lithic Scatter	Not Evaluated

ESJ Gen-Tie Project

The records search conducted for the ESJ Gen-Tie Project identified two studies covering the project APE: a 1981 linear survey for a proposed transmission that crossed the northern border of the site; a 1980 general cultural resources inventory of southeastern San Diego County (EDAW 2009). Although 43 archaeological sites were located within a 1-mile radius of the ESJ Gen-Tie Project site, only one, CA-SDI-6119, is within the APE, adjacent to the project’s Legal Access Road APE.

E&E conducted three pedestrian surveys of 69.25 acres of the ESJ Gen-Tie Project’s APE in March 2008, and EDAW conducted pedestrian surveys of approximately 2.56 acres of the project’s APE that consisted of the existing access road alignment and the proposed access road alignment in April 2009. Sixteen new cultural resources were recorded within the project’s APE. Of the sixteen previously unrecorded cultural resources, ten were lithic reduction areas, lithic

scatters, and a ceramic scatter, and six were artifact isolates. The previously recorded site CA-SDI-6119 was relocated during surveys for the access road alignment. The newly recorded sites and isolates discovered during pedestrian surveys of the ESJ Gen-Tie Project APE are listed in Table D.7-8.

Table D.7-8
Sites and Isolates within the ESJ Gen-Tie Project Area of Potential Effect

Site Number	Site Description
CA-SDI-19480	Lithic reduction area
CA-SDI-19484	Lithic reduction area
CA-SDI-19485	Ceramic scatter
CA-SDI-19486	Lithic reduction area
CA-SDI-19488	Lithic reduction area
CA-SDI-19489	Lithic reduction area
CA-SDI-19490	Lithic scatter
CA-SDI-19492	Lithic reduction area
CA-SDI-19493	Lithic reduction area, ceramic sherd
CA-SDI-19494	Lithic scatter
P-37-30670	Historic lead ball isolate
P-37-30672	Lithic isolate
P-37-30673	Lithic isolate
P-37-30674	Ceramic isolate
P-37-30675	Lithic isolate
P-37-30678	Lithic isolate

Source: EDAW, Inc. 2010

Excavations at CA-SDI-6119, -19488, -19490, -19492, -19493, and -19494 have determined that they are not eligible for listing on the NRHP as an “historic property” and listing on the CRHR as “historic resource,” or the testing has exhausted their research potential (EDAW 2010.). Therefore, they are not considered potentially eligible for listing on the NRHP and CRHR (CEQA Guidelines Section 15064.5) under Criterion D, because the sites are not “likely to yield information important to prehistory or history.” Additionally, the sites are not “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event. The remaining five newly recorded sites within the ESJ Gen-Tie APE, CA-SDI-19480, -19484, -19485, -19486, -19489 have been evaluated for their NRHP eligibility as “historic properties” and CRHR eligibility as “historic resources” (EDAW, Inc. 2010). Therefore, they are considered potentially eligible for listing on the NRHP and CRHR (CEQA Guidelines Section 15064.5) under Criterion D, because the sites are “likely to

yield information important to prehistory or history.” Additionally, the sites are “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event.

The isolated finds P-37-30670 through -030678 are by definition not sites and are not eligible for inclusion in the NRHP. Because isolates are not NRHP-eligible, they are not historic properties under Section 106 of the NHPA, and no further work is necessary (EDAW, Inc. 2010). The isolated finds also are not eligible for inclusion in the CRHR, because they do not address any of the listing criteria (A, B, C, or D). Additionally, the isolated finds are not “unique” archaeological resources as defined by CEQA Statutes Section 21083.2(g), because they do not contain information needed to answer important scientific questions; there is no demonstrable public interest in that information; they have no special and particular quality, such as being the oldest of its type or the best available example of its type; and they are not directly associated with a scientifically recognized, important prehistoric or historic event or person.

Traditional Cultural Properties

Although contacts have been made with identified knowledgeable Native American tribes and individuals associated with the BLM Section 106 consultation process parties, the formal consultation process associated with the ECO Substation and Tule Wind projects is not complete. The BLM is in the process of conducting government-to-government consultation. Therefore, the scope, nature, extent, and potential significance of any TCPs associated with the APEs for the proposed projects addressed in this document are not presently known. Therefore, potential NRHP eligibility of TCPs within the project area must be assumed.

The EIS for the ESJ Gen-Tie Project (DOE 2010) states that consultation Native American tribes and groups that might have knowledge of cultural resources did not identify any traditional use of the project Area of Potential Effects (APE).

D.7.1.3 Identified Paleontological Resources

Ground-disturbing aspects of the Proposed PROJECT have the potential to impact paleontological resources. Strata containing these resources usually underlie the soil surface, but occasionally they are exposed in natural cliff faces, valley slopes, or road cuts.

The BLM has developed a Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands, a classification system that is based on the potential for the occurrence of significant paleontological resources in a geologic unit, and the associated risk for impacts to the resource based on Federal management actions. The following levels of

sensitivity are identified in the PFYC System that recognize the important relationship between fossils and the geologic formations within which they are preserved (BLM 2007):

- **Very High – Class 5.** Very high sensitivity is assigned to geologic units that consistently and predictably produce vertebrate fossils, or are scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area, such that the probability for impacting significant fossils is high.
- **High Sensitivity – Class 4.** High sensitivity is assigned to geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. It is assigned to geologic formations known to contain paleontological localities with rare, well-preserved, and/or critical fossil materials for stratigraphic or paleo-environmental interpretation and to fossils providing important information about the paleobiology and evolutionary history (phylogeny) of animal and plant groups. Generally speaking, high sensitivity formations are known to produce or have the potential to produce vertebrate fossil remains.
- **Moderate or Unknown Sensitivity – Class 3.** Moderate or unknown sensitivity is assigned to sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or where sedimentary units have unknown fossil potential. These geologic units include those: often within former marine environments in which only sporadic occurrences of vertebrate fossils are known; where vertebrate fossils and scientifically significant invertebrate or plant fossils known to occur intermittently, and predictability is known to be low; or where they are poorly studied and/or poorly documented, such that their potential cannot be assigned without ground reconnaissance.
- **Low Sensitivity – Class 2.** Low sensitivity is assigned to sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils, where vertebrate or significant invertebrate or plant fossils not present or very rare. These include units that are generally younger than 10,000 years before present, such as recent aeolian deposits. Low sensitivity also includes sediments that exhibit significant physical and chemical changes (i.e., diagenetic alteration).
- **Very Low Sensitivity – Class 1.** Very low sensitivity is assigned to geologic units that are not likely to contain recognizable fossil remains. These include units that are igneous or metamorphic, excluding reworked volcanic ash units, or units that are Precambrian in age or older. The occurrence of significant fossils is non-existent or extremely rare, such that the probability for impacting any fossils in these units is negligible.

According to the Paleontological Resource Map listed in the BLM Eastern San Diego County Resource Management Plan, the project area is listed as containing Class 1, low sensitivity, and Class 2, moderate sensitivity, rock formations within the project area.

- ***Class 1 (low sensitivity)***. Igneous and metamorphic geologic units or units with highly disturbed environments not likely to contain recognizable fossil remains. Management concern is negligible for Class 1 resources, and mitigation requirements are rare.
- ***Class 2 (moderate sensitivity)***. Sedimentary geologic units not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is low for Class 2 resources, and mitigation requirements are not likely.

According to the Eastern San Diego County Guidelines for Determining Significance of Paleontological Resources, geologic formations in the County are rated as high, moderate, low, marginal, and no potential. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area. The Guidelines state that the most useful designation for paleontological resources in an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) document is the “sensitivity” of a particular geologic unit. Sensitivity refers to the likelihood of finding significant fossils within a geologic unit.

ECO Substation Project

Based on the paleontological resources record review and the pedestrian field surveys conducted for the proposed ECO Substation project (including the 138 kV transmission line and SWPL Loop-In subprojects), one highly sensitive geological formation or unit is located within the ECO Substation APE: the Table Mountain Formation (PaleoServices, Inc. 2009). The Table Mountain Formation is composed of medium- to coarse-grained sandstone and conglomeratic sandstone (DWR 2004). According to the California Division of Mines and Geology, the geology of the Table Mountain Formation is composed of undivided Miocene-aged non-marine sedimentary rock and Miocene-aged volcanic igneous rock (Strand 1962). While the Miocene period generally extends from 24 to 5 million years ago, the San Diego Natural History Museum suggests that the Table Mountain Formation is likely early Miocene (between 18.5 Ma and 25 Ma) in age (Demere and Walsh 1993). Several paleontological collecting sites have been recorded within this geological formation (Demere and Walsh 1993). Fossils recovered from the Table Mountain Formation consist of bones and teeth of land mammals, including rodents, rabbits, and camels (PaleoServices, Inc. 2009).

The resistant rocks of the Jacumba volcanics protect the Table Mountain Formation from erosion. Wherever the volcanics are located, the resistant rocks are also located. During a field

survey of the proposed project area, weathered artificial exposure of the Table Mountain Formation was seen at the proposed ECO Substation site, near the existing SDG&E access road located in the northern half of the site. The exposures were composed of light-brown, poorly sorted, coarse-grained sandstones (PaleoServices, Inc. 2009). Additional exposures of the Table Mountain Formation were seen along Old Highway 80, near the northwestern corner of the proposed ECO Substation site. The exposure observed there included 25 feet of light-brown, interbedded siltstones and fine-grained sandstones (PaleoServices, Inc. 2009). Table Mountain Formation exposures also occur along the proposed 138 kV transmission line ROW, along the slopes of the broad ridge located between Round Mountain and Jacumba Peak (PaleoServices, Inc. 2009).

Based on the known paleontological resources of the Table Mountain Formation, the sedimentary rock of this formation is believed to possess High – Class 4 rating according to the BLM PFYC System.

Most of the ECO APE is within the Jacumba Valley, with geologic units consisting of poorly consolidated stream sediments (silts, sands, and gravels) of probable late Holocene age. West of the Jacumba Mountains, the geologic unit is Holocene-age alluvial fan deposits (fanglomerate) that extends into the headwaters of Carrizo Creek and Boulder Creek. Holocene alluvial deposits occur extensively across the floor of Jacumba Valley where it is crossed by the proposed 138 kV transmission line (e.g., SP-84 and SP-85). Alluvial deposits also occur in the smaller dry washes along this ROW east of Jacumba Valley (e.g., SP-87, SP-89, and SP-93). Holocene fanglomerates locally occur west of the Jacumba Mountains in the vicinity of the proposed ECO Substation site, where they overlie older alluvium and fanglomerate deposits. These Young alluvium or Alluvium deposits consist of poorly consolidated silts, sands, and gravels. No fossils are known from the Holocene alluvium and fanglomerate deposits in the project area. The relatively young geologic age of these deposits further suggests that no fossils will probably be found in them (PaleoServices, Inc. 2009). They are therefore assigned a Low Sensitivity – Class 2 rating according to the BLM PFYC System.

Older alluvium and fanglomerate deposits consisting of coarse-grained, gravelly sandstones, pebble and cobble conglomerates, and claystones related to late Pleistocene (10,000 to 700,000 years old) climatic events occur within portions of the proposed ECO Substation site, as well as areas along the proposed 138 kV transmission line. It is likely that their mapping of this rock unit is imprecise (PaleoServices, Inc. 2009). No fossil localities are recorded from these deposits in the Proposed Project area. Fossils of Pleistocene land mammals (e.g., horse), however, have been collected from similar older alluvial deposits in the Warner Valley region of the Peninsular Ranges, suggesting the potential for such discoveries in the project area east of Jacumba Valley.

Therefore, these geologic units are assigned a Moderate or Unknown Sensitivity – Class 3 according to the BLM PFYC System.

The Peninsular Ranges Batholith geologic unit is comprised of plutonic (volcanic rocks) that occur within the ECO Substation APE in the eroded slopes of the Jacumba Mountains. Much of the 138 kV transmission line ROW (e.g., from two miles west of Jacumba Peak westward to the Boulevard Substation) is underlain by weathered exposures of these igneous rocks. The entire Boulevard Substation site is underlain by deeply weathered granitic rocks (i.e., “decomposed granite”), with localized rounded blocks of more resistant plutonic rock. No fossils are known from these rocks. Therefore, these volcanic geologic units are assigned a Very Low Sensitivity – Class 1 rating according to the BLM PFYC System.

Julian Schist is a prebatholithic metasedimentary rock unit occurring within the Peninsular Ranges Batholith associated with the original intrusion of Jurassic and Cretaceous magmas into older pre-existing “country rock.” They are composed mainly of quartz-mica schist and quartzite, with minor amounts of marble and amphibolite. The age of the Julian Schist is uncertain, but Triassic-age fossils have been collected from prebatholithic metasedimentary rocks in Riverside County, and Ordovician fossils have been collected from metasedimentary rocks located about 25 miles south of Tecate in Baja California, Mexico (PaleoServices, Inc. 2009). Thus, it is possible that fossils will eventually be discovered in the metasedimentary rocks in the central part of the Peninsular Ranges in San Diego County. The majority of the metasedimentary rocks of the central and eastern Peninsular Ranges in San Diego County, including that portion crossed by the 138 kV transmission line, have a Very Low – Class 1 rating according to the BLM PFYC System. However, a small proportion of these rocks, in localized areas, can be assigned a Low – Class 2 sensitivity rating based upon the fossil discoveries discussed above. As a whole, the Julian Schist within the ECO Substation project area is assigned a Low – Class 2 sensitivity rating.

Tule Wind Project

No paleontological field surveys were conducted for the project, including the Boulevard and 138 kV Transmission Line project areas; therefore, it is necessary to assess the sensitivity of rock units based on their known potential to produce scientifically significant fossils elsewhere within the same geologic unit (both within and outside of the project area) or a unit representative of the same depositional environment. For the project, USGS soil mapping units were used to analyze the types of soils and geologic formations located within the project area to determine the likelihood for the presence of paleontological resources (HDR 2010).

Approximately 90% of the project area is underlain by the La Posta Tonalite unit of early and late Cretaceous age crystalline plutonic (volcanic) rocks. As these are volcanic rocks, they have a Very Low Sensitivity - Class 1 rating according to the BLM PFYC System.

In the westernmost 10% of the project area, a body of metamorphic rocks of Triassic and Jurassic ages is exposed, and minor, small pebble metaconglomerate. These rocks also contain layers of sandstone, quartz pebble conglomerate, mudstone, and amphibolite and are thought to represent metamorphosed submarine fan deposits interlayered with volcanic rocks. Any of the sedimentary portions of these rocks potentially contain fossils (PaleoServices, Inc. 2009). They have a Moderate or Unknown Sensitivity – Class 3 rating according to the BLM PFYC System.

ESJ Gen-Tie Project

The ESJ Gen-Tie Project site is underlain by geologic rock, consisting of Holocene alluvium and fanglomerate (Qya) and Peninsular Ranges Batholith (Klp). Holocene fanglomerates are known to occur west of the Jacumba Mountains in the vicinity of the proposed ESJ Gen-Tie Project site (at this location they overlie older alluvium and fanglomerate deposits) (PaleoServices, Inc. 2009). Fossils have not been encountered in either the Holocene alluvium or the fanglomerate deposits in the project area. Due to the relatively young geologic age of these deposits, the likelihood for fossils within these deposits is remote; therefore, they have a Low Sensitivity – Class 2 rating according to the BLM PFYC System. The Peninsular Batholith Ranges consist of plutonic igneous rocks formed from molten magma several miles in the earth's crust. Due to relative depth of the formation, the Peninsular Batholith Ranges have no potential for encountering significant fossils (San Diego Natural History Museum 1993). Therefore, they have a Very Low Sensitivity - Class 1 rating according to the BLM PFYC System.

D.7.2 Applicable Regulations, Plans, and Standards

Federal, state, and local laws, ordinances, regulations, and standards applicable to cultural and paleontological resources within the Proposed PROJECT area are summarized in this section. In addition to the federal regulations identified, the Campo and Manzanita wind energy projects may be subject to Bureau of Indian Affairs' (BIA's) policies and regulations and tribe-specific policies and plans.

D.7.2.1 Federal Regulations

D.7.2.1.1 Federal Regulations Applicable to Cultural Resources

National Historic Preservation Act

Federal regulations for cultural resources are primarily governed by Section 106 of the NHPA of 1966 (16 U.S.C. 470 et seq.), which requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR, Part 800. The goal of the Section 106 review process is to offer a measure of management consideration to sites determined eligible for listing on the NRHP based on the criteria found in 36 CFR, Part 60, which state that eligible resources include:

...[D]istricts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded, or may be likely to yield, information important to history or prehistory.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and record searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

The NRHP was established to recognize resources associated with the country's history and heritage. Guidelines for nomination are based on significance in American history, architecture, archaeology, engineering, and culture. Resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

The National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties (Parker and King 1998) defines a TCP generally as one that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history and (b) are important in maintaining

the continuing cultural identity of the community. The significance criteria used for TCPs are the same as the four criteria used for determining the significance of historic properties.

Examples of properties possessing such significance include the following:

- A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world
- A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents
- An urban neighborhood that is the traditional home of a particular cultural group and that reflects its beliefs and practices
- A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice
- A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

The NHPA addresses and identifies the responsibilities of the State Historic Preservation Officer (SHPO) in regard to the State Historic Preservation Program. One of the primary responsibilities of the SHPO is to “direct and conduct a comprehensive statewide survey of historic properties and nominate eligible properties to the NRHP” (16 U.S.C. 470 et seq.).

National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) establishes national policies and goals for the protection, maintenance, and enhancement of the environment as well as provides a framework for implementing these goals within the federal agencies. Section 102 of NEPA requires federal agencies to address environmental effects in their planning and decision-making documents. Specifically, all agencies are required to prepare detailed statements or reports that analyze and assess the environmental impacts of and alternatives to major federal action which could potentially affect the environment. Coordination efforts between NEPA and NHPA (Section 106) are established in 36 CFR 800.8(c). This section also established the process through which a federal agency can use the NEPA process and documentation to comply with Section 106. These are being coordinated for this project. NEPA establishes the federal government’s responsibility to preserve and protect significant historic, cultural, and natural resources of the United States, including paleontological resources.

Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act (AHPA) (16 U.S.C. 469 et seq.) requires federal agencies to provide for the “preservation of historical and archaeological data which might otherwise be irreparably lost or destroyed as the result of ... any alteration of the terrain caused as a result of any federal construction project or federal licensed activity or program.” The AHPA expanded the federal Historic Sites Act of 1935 by focusing on significant resources, but it does not require significant resources to be of “national” significance. The AHPA establishes historical and archaeological preservation requirements that are applicable to any project expected to result in the loss or destruction of significant scientific, historical, and archaeological data. The requirements are designed to avoid unnecessary damage to significant archaeological resources by modification of project design or recovery of threatened resources.

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) (16 U.S.C. 470aa et seq.) was primarily established to provide more effective law enforcement to protect public archaeological sites. The Act provided a detailed description of prohibited activities and monetary and incarceration penalties associated with looting or vandalizing an archaeological site on federal lands. Another focus of the ARPA is the regulation of legitimate archaeological investigation on public lands and the enforcement of penalties against those who loot or vandalize archaeological resources.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq.) established the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations regarding the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony (items all collectively referred to as cultural items) with which they can show a relationship of lineal descent or cultural affiliation. One of the purposes of the act is to require federal agencies to consult with applicable tribes regarding the disposition of Native American cultural items whenever cultural items are expected to be encountered during federal actions.

Executive Order 13007, Protection and Preservation of Native American Sacred Sites

Executive Order 13007 was established to better protect important Indian sites and protect and preserve Indian religious practices. Section 1 of the executive order states that:

- (a) In managing Federal lands, each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred

sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites.

Federal Land Management Policy Act of 1976

The Federal Land Management Policy Act (FLMPA) directs the way in which public lands administered by the BLM are managed. The FLMPA also defines areas of critical environmental concern (ACEC) as “an area within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards” (BLM 2001). Lastly, the FLMPA establishes policy for a variety of BLM activities including acquisition or disposition of land, range management, ROW management, and designated management areas.

The FLMPA recognizes significant fossils as unique, rare, or particularly well preserved; an unusual assemblage of common fossils; being of high scientific interest; or providing important new data concerning (1) evolutionary trends, (2) development of biological communities, (3) interaction between or among organisms, (4) unusual or spectacular circumstances in the history of life, or (5) anatomical structure (43 U.S.C. 1701 et seq.).

American Antiquities Act of 1906

The American Antiquities Act of 1906 (16 U.S.C. 431 et seq.) was the first U.S. law to provide for the protection of historical or cultural resources. Section 2 of the statute gives the President the authority to protect and conserve “... historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States....” Section 3 of the act required that unearthed historical and cultural resources be placed in public museums for preservation and public benefit. The act also provides penalties for the damage or destruction of antiquities.

BLM Final Programmatic EIS on Wind Energy Development

The following programmatic construction best management practice (BMP) was adopted as part of the BLM Wind Energy Development Program and is applicable to the Tule Wind Project:

- Unexpected discovery of cultural or paleontological resources during construction shall be brought to the attention of the responsible BLM authorized officer immediately. Work shall be halted in the vicinity of the find to avoid further disturbance to the resources while they are being evaluated and appropriate mitigation measures are being developed.

The programmatic BMPs adopted by the BLM's Wind Energy Development Program are requirements of the project-specific Plan of Development.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act (PRPA) requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land using scientific principles and expertise. The Omnibus Public Lands Act-Paleontological Resources Preservation (OPLA-PRP) includes specific provisions addressing management of these resources by the BLM, the National Park Service (NPS), the Bureau of Reclamation (BOR), the U.S. Fish and Wildlife Service (USFWS), all of the Department of the Interior, and the USFS of the Department of Agriculture.

The OPLA-PRP affirms the authority for many of the policies that the federal land-managing agencies already have in place for the management of paleontological resources such as issuing permits for collecting paleontological resources, curation of paleontological resources, and confidentiality of locality data. The OPLA-PRP only applies to federal lands and does not affect private lands. It provides authority for the protection of paleontological resources on federal lands, including criminal and civil penalties for fossil theft and vandalism. As directed by the Act, the federal agencies are in the process of developing regulations, establishing public awareness and education programs, and inventorying and monitoring federal lands.

D.7.2.2 State Laws and Regulations

California Environmental Quality Act

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (California Public Resources Code, Sections 21083.2 and 21084.1, and Section 15064.5 of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. A "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript, which is historically or archaeologically significant (California Public Resources Code, Section 5020.1 (j)).

CEQA Statutes Section 21083.2(g) defines the significance of an archaeological site in terms of whether it is "unique." A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

- The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information.

- The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the previously listed criteria. Impacts to non-unique archaeological resources receive no further consideration under CEQA, other than the recording of its existence by the lead agency if it so elects.

CEQA Statutes Section 21083.2 indicates that a lead agency may make efforts to preserve unique archaeological resources by implementing avoidance strategies including redesign, dedication of permanent conservation easements, capping of archaeological sites, or incorporating archaeological sites in parks or other open spaces. If avoidance is not possible, project impacts to those portions of the unique archaeological resources shall be mitigated. Provisions for the accidental discovery of archaeological sites during construction are recommended, including its immediate evaluation and, if considered to be unique, mitigation through implementing avoidance measures or archaeological data recovery excavations.

Section 15064.5 of the CEQA Guidelines specifies criteria for determining the significance of impacts to archaeological and historical resources, including whether the resource:

- A. Is associated with events that have made a contribution to the broad patterns of California history
- B. Is associated with the lives of important persons from our past
- C. Embodies the distinctive characteristics of a type, period, region or method construction, or represents the work of an important individual or possesses high artistic values
- D. Has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations, and societies, be solicited as part of the process of cultural resources inventory.

CEQA Guidelines Section 15064.5(b) defines when a project would potentially have significant impacts on cultural resources. A “substantial adverse change in the significance of an historical resource” means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (14 CCR 15000 et seq. The significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

CEQA Guidelines, Section 15064.5(b)(4), states that the lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource. Section 15064.5(b)(3) of the CEQA Guidelines also states that impacts on a historic resource may be reduced to a less-than-significant level if project design follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995).

CEQA Guidelines, Section 15064.5(d), assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under California Public Resources Code (PRC) Section 5097.98. Under CEQA, lead agencies are required to consider impacts to unique paleontological resources. CEQA is concerned with assessing impacts associated with the direct or indirect destruction of unique paleontological resources or sites, as defined in Section D.7.1.3, which are of value to the region or state.

California Public Resources Code

California Public Resources Code Section 5024.1 (a) establishes the CRHR. Section 5024.1(c–f) provides criteria for CRHR eligibility listing. In addition, the CRHR also automatically includes the following: California properties listed on the NRHP, State Historic Landmark No. 770 and all consecutively numbered state landmarks following No. 770 (landmarks preceding No. 770 shall be reviewed for eligibility by the SHPO), and points of historical interest that have been reviewed by the SHPO and recommended for inclusion in the CRHR in accordance with criteria adopted by the State Historic Resources Commission.

California Public Resources Code Section 5097–5097.6 outlines the requirements for cultural resource analysis prior to the commencement of any construction project on State Lands. The state agency proposing the project may conduct the cultural resource analysis or may contract with the State Department of Parks and Recreation (DPR). In addition, this section identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions. This section was amended in 1987 to require consultation with the NAHC whenever Native American graves are found. Violations for taking or possessing remains or artifacts are felonies.

California Public Resources Code Section 5097.5 states that ~~no~~ person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.”

California Public Resources Code, Section 5097.9 (interference with Native American religion or damage to cemeteries or places of worship, etc.) states that no public agency or private party shall cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

California Public Resources Code, Section 5097.98, states that whenever the NAHC receives notification of Native American human remains from a county coroner, the NAHC shall immediately notify the most likely descendent. The most likely descendent may, with permission from the owner of the land in which the human remains were found, inspect the site and recommend to the owner or the responsible party conducting the excavation work a means for treating and/or disposing of the human remains and any associated grave goods. The most likely

descendent is required to complete their site inspection and make their recommendation within 48 hours of their notification from the NAHC.

Additionally, California Public Resources Code, Section 30244, states that “where development would adversely impact archaeological or paleontological resources as identified by the State Officer of Historic Preservation Officer, reasonable mitigation measures shall be required.”

California Health and Safety Code

In addition, California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains.

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered. The code states:

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 adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

D.7.2.3 Regional Policies, Plans, and Regulations

The following San Diego County policies and plans are applicable to the proposed project:

San Diego County Administrative Code Section 396.7

San Diego County Administrative Code Section 396.7 establishes the San Diego County Local Register of Historical Resources. Approved by the County Board of Supervisors in 2002, Section 396.7 contains criteria for automatic listing on the local register, identifies types of resources eligible for nomination for listing, identifies special consideration, and details the application process for listing on the register.

County of San Diego General Plan – Conservation Element

Chapter 8 of the Conservation Element of the County of San Diego General Plan contains policies regarding the conservation and protection of significant cultural resources. For example, Policy 1 establishes measures including land use controls, ordinances prohibiting unqualified archaeologists or vandals from excavating or defacing such resources, dedication of open spaces, and formation of cultural areas to be used to protect significant cultural resources. Also, Policy 4 states that the County will use the EIR process to conserve cultural resources.

County of San Diego General Plan – Conservation Element (Part X)

The Conservation Element of the County of San Diego General Plan provides policies for the protection of natural resources. In addition, Appendix G of the Conservation Element lists Unique Geologic Features for conservation, many of which are fossiliferous formations.

County of San Diego Draft General Plan Update – Conservation and Open Space Element

The following goals and policies identified in the County of San Diego Draft General Plan Update Conservation and Open Space Element are applicable to the Proposed PROJECT:

- **Goal COS-7: Protection and Preservation of Archaeological Resources.** Protection and preservation of the County’s important archaeological resources for their cultural importance to local communities, as well as their research and educational potential.
- **Policy COS-7.1: Archaeological Protection.** Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- **Policy COS-7.2: Open Space Easements.** Require development to avoid archaeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
- **Policy COS-7.3: Archaeological Collections.** Require all collections to be placed in a local curation facility that meets federal standards per 36 CFR Part 79, with the exception of those required by law to be repatriated.
- **Policy COS-7.4: Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
- **Policy COS-7.5: Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect.
- **Policy COS-7.6: Cultural Resource Data Management.** Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that

includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.

- **Policy COS-9.1: Preservation.** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.
- **Policy COS-9.2: Impacts of Development.** Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.

BLM Eastern San Diego County Resource Management Plan and Record of Decision

The goals and objectives of the plan are to:

- Identify, preserve, and protect significant cultural resources, districts, and landscapes and ensure that they are available for appropriate uses by present and future generations
- Identify priority geographic areas for new field inventory, based upon a probability for unrecorded significant resources
- Enhance public understanding of and appreciation for cultural resources through educational outreach and heritage tourism opportunities
- Maintain viewsheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values
- Provide and encourage research opportunities on cultural resources that would contribute to the understanding of the ways humans have used and influenced natural systems and processes
- Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses
- Reduce or eliminate indirect impacts from land uses on cultural resources.

Resource Protection Ordinance

The RPO requires that cultural resources be evaluated as part of the County's discretionary environmental review process. If cultural resources are found to be significant through the RPO process, then they must be preserved (County of San Diego 2007). The RPO prohibits development, trenching, grading, clearing, and grubbing, or any other activities that could potentially impact cultural resources (except during scientific investigations with an approved research design prepared by archaeologists certified by the Society of Professional Archaeologists (now the Register of Professional Archaeologists)).

County of San Diego Zoning Ordinance (1978)

Sections 5700 through 5749, Historical/Archaeological Landmark and District Area Regulations, provides provisions to “identify, preserve, and protect the historic, cultural, archaeological, and/or architectural resource values of designated landmarks and districts and encourage compatible uses and architectural design” (Section 5700). The zoning ordinance (Section 5703) designates historic/archaeological areas with a Historic/Archaeological Landmark or District (H) designation. Lands associated with the H designation contain limitation on use and construction and other regulations intended to conserve and protect on-site resources.

County of San Diego Guidelines for Determining Significance – Paleontological Resources

Sections 1 and 2 of these guidelines define paleontological resources and lists state and local regulations and standards. Sections 3 and 4 discuss ratings and sensitivity and typical adverse effects. Sections 5 and 6 provide criteria for determining significance and the mitigation requirements for specific levels of impact and significance.

County of San Diego Grading Ordinance

Section 87.430 of the Grading Ordinance provides for the requirement of a paleontological monitor at the discretion of the County. In addition, the suspension of grading operation is required upon the discovery of fossils greater than 12 inches in any dimension. The ordinance also requires notification of the County official (e.g., Permit Compliance Coordinator). The ordinance gives the County official the authority to determine the appropriate resource recovery operation, which the permittee shall carry out prior to the County official’s authorization to resume normal grading operation.

Mills Act

The Mills Act is a program that provides property tax relief to owners of qualified historic properties that enter into contracts with local governments to restore and maintain their properties. Qualified historic places are those that are listed on any federal, state, county, or city register, including the NRHP and/or CRHR, California Historical Landmarks, State Points of Historical Interest, and locally designated landmarks. The Mills Act contract is 10 years and is automatically extended each year. The contract stays with the property when the property is transferred. The Mill Act program is administered and implemented by local governments. The County of San Diego is a participant in the Mills Act program.

D.7.3 Environmental Effects

D.7.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

Cultural Resources

Cultural resources are places or objects that are important for historical, scientific, and religious reasons and are of concern to cultures, communities, groups, or individuals. These resources may include buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, human remains, or Traditional Cultural Properties. In the context of a federally permitted undertaking, the “significance” of cultural resources must be determined by the Federal Lead Agency under a NEPA official in consultation with the SHPO and other interested parties. Any action, as part of an undertaking, that could affect a “significant” cultural resource is subject to review and comment under Section 106 of the NHPA of 1966. Cultural resources that retain integrity and meet one or more of the criteria of significance (36 CFR 60.6) qualify as significant and are eligible for listing on the NRHP; such resources must be managed in compliance with the Advisory Council’s regulations (36 CFR 800). Within the State of California there are also provisions in CEQA, its Guidelines, and other provisions of the California PRC for the protection and preservation of significant cultural resources (i.e., “historical resources” and “unique archaeological resources”). In addition, local regulations (County of San Diego) provide for the protection of cultural resources. The following significance criteria apply to cultural resources:

- The Proposed PROJECT would cause an adverse effect (substantial adverse change) to the characteristics or significance of a historic property or Traditional Cultural Property as defined by federal guidelines.
- The Proposed PROJECT would cause a substantial adverse change in the significance of a historical resource as defined in 14 CCR 15064.5 and California Public Resources Code, Section 21083.2. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.
- The Proposed PROJECT would cause a substantial adverse change in the significance of a unique archaeological resource as defined in 14 CCR 15064.5 and California Public Resources Code, Section 21083.2. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
- The Proposed PROJECT could disturb, uncover, expose, and/or damage Native American human remains including those interred outside of formal cemeteries and associated artifacts.

Cultural resources that do not satisfy any of these criteria do not merit consideration under NEPA, CEQA, or NHPA. Although CEQA discusses impacts to “cultural and historical resources” and “unique archaeological sites,” the terms “significant cultural resource” and “historic property” apply in the context of the NHPA and federal activities that may impact cultural resources.

Traditional Cultural Properties

The BLM Section 106 consultation process has not yet been concluded for this project, so the nature, extent, and potential significance of TCPs is unknown. Although no TCPs have been identified, potential NRHP eligibility of unknown TCPs must be assumed. In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be adverse; therefore, mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). In other cases, efforts will be made to avoid TCP through minor project refinements that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Human Remains

Project mitigations have been incorporated that will ensure avoidance of human remains. Unlike TCPs, which can be broad land forms or use areas, avoidance of unknown human remains are thought to be localized and feasibly avoided, if necessary, through redesign. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). However, any adverse effect to human remains is considered a significant (Class I under CEQA) impact. Implementation of project mitigation measures would partially compensate for impacts to human remains. However, the impacts cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I), in accordance with 36 CFR 800, which considers impacts to human remains an unmitigable adverse effect.

Paleontological Resources

According to the BLM Resource Management Plan, determination of the “significance” of a fossil can only occur after a fossil has been found and identified by a qualified paleontologist. Until then, the actual significance is unknown. The most useful designation for paleontological resources under both NEPA and CEQA is the “sensitivity” of a particular geologic unit. Sensitivity refers to the likelihood of finding significant fossils within a geologic unit. In California, fossils of land-dwelling vertebrates are considered significant. Low resource potential

formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area.

An affirmative response to or confirmation of the following County of San Diego Guidelines for Determining Significance – Paleontological Resources Guideline will generally be considered a significant impact related to paleontological resources under CEQA Appendix G, as a result of project implementation, in the absence of scientific evidence to the contrary:

The project proposes activities directly or indirectly damaging to a unique paleontological resource or site. A significant impact to paleontological resources may occur as a result of the project if project-related grading or excavation will disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County, as shown on the San Diego County Paleontological Resources Potential and Sensitivity Map.

It requires the evaluation of paleontological resources to determine whether or not a proposed action will have a significant effect upon paleontological resources. Significant paleontological resources can occur in any of the rocks of San Diego County other than those that are volcanic (also known as plutonic or igneous) (No Potential).

A significant impact as defined under CEQA requires mitigation. Impacts to potentially significant paleontological resources require mitigation in the form of monitoring during grading. The goal of paleontological resources mitigation is the recovery, curation, and permanent archival storage of significant fossil remains, thus preserving what would otherwise have been destroyed and lost by excavation activities.

Since an impact to paleontological resources does not typically occur until the substratum is excavated, monitoring during excavation is the essential measure to mitigate significant impacts to paleontological resources to a level below significance. The type of monitoring required is based on the amount of excavation and the site's paleontological resource potential and sensitivity. It is the opinion of local paleontological professionals that when the volume of excavation exceeds 2,500 cubic yards, the potential loss of paleontological resources is much higher than for lesser amounts of excavation (PaleoServices, Inc. 2009). Therefore, the County requires the following monitoring and subsequent salvage of significant paleontological resources, if they are found, to adequately mitigate significant impacts:

- For projects within areas of High or Moderate Paleontological Resources Sensitivity that propose excavation equal to or greater than 2,500 cubic yards, the services of a Project Paleontologist and a Paleontological Resources Monitor are required.

- For projects within areas of High or Moderate Paleontological Sensitivity that propose excavation of less than 2,500 cubic yards, monitoring by a Standard Monitor is required.
- For projects within areas of Low or Marginal Sensitivity, monitoring by a Standard Monitor is required.

D.7.3.2 Applicant Proposed Measures

ECO Substation Project

Applicant Proposed Measures (APMs) ECO-CUL-1 through ECO-CUL-11, which include training and monitoring for cultural and paleontological resources, as described in Section B.3.4, ECO Substation Project Applicant Proposed Measures, of this EIR/EIS, were proposed by SDG&E to reduce impacts related to cultural and paleontological resources.

Tule Wind Project

APMs TULE-CUL-1 through TULE-CUL-5, which include monitoring and compliance with state and federal laws, as described in Section B.4.4, Tule Wind Project Applicant Proposed Measures of this EIR/EIS, were proposed by Pacific Wind Development to reduce impacts related to cultural and paleontological resources.

ESJ Gen-Tie Project

APMs ESJ-CUL-1 through ESJ-CUL-4, which include monitoring and compliance with state and federal laws, as described in Section B.5.4, ESJ Gen-Tie Project Applicant Proposed Measures of this EIR/EIS, were proposed by ESJ U.S. Transmission, LLC, to reduce impacts related to cultural and paleontological resources.

Campo, Manzanita, and Jordan Wind Energy Projects

At the time this EIR/EIS was prepared, the project proponents for these three wind energy projects have not developed project-specific APMs.

D.7.3.3 Direct and Indirect Effects

Table D.7-9 lists the impacts and classifications of the impacts under CEQA identified for the Proposed PROJECT. Cumulative effects are analyzed in Section F of this EIR/EIS.

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.7-9
Cultural and Paleontological Resource Impacts**

Impact No.	Description	Classification
ECO Substation – Cultural/Paleontological Resource Impacts		
ECO-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ECO-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ECO-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III
ECO-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Tule Wind – Cultural/Paleontological Resource Impacts		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
TULE-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
TULE-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
ESJ Gen-Tie – Cultural/Paleontological Resource Impacts		
ESJ-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ESJ-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ESJ-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ESJ-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	No Impact
ESJ-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Proposed PROJECT (COMBINED – including Campo, Manzanita, and Jordan Wind Energy)		
CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact CUL-1: Construction of the project would cause an adverse change to known significant prehistoric or historic archaeological resources.

ECO Substation Project

A total of eight prehistoric archaeological sites (some with sparse historic-period trash deposits), CA-SDI-7074, -7079, -7082, -19618, -19619, -9621, -19622, and -19627, are within the ECO Substation APE. None of the sites have been formally evaluated for their eligibility for listing on the NRHP as “historic properties” or on the CRHR as “historic resources.” Of these eight sites, however, only two, CA-SDI-7074 and -19627, are characterized as having sufficient surface artifact distributions to suggest the potential for subsurface deposits needed to be considered potentially “historic properties” eligible for NRHP listing and “historic resources” eligible for CRHR listing. Sites that would not be feasibly avoided and would be impacted would need to be formally evaluated to determine if they are significant. Other previously recorded archaeological sites within the ECO Substation and SWPL Loop-In APEs have been determined to not exist and are therefore not NRHP-eligible historic properties or CRHR-eligible historic resources. There are no previously recorded prehistoric or historic archaeological sites, features, or isolated finds within the proposed Boulevard Substation Rebuild site.

Ground-disturbing construction activities, including grading and excavation that would be necessary to develop the pads for the ECO Substation have the potential to impact significant buried prehistoric or historic archaeological resources associated with CA-SDI-7074 and CA-SDI-19627. If site avoidance is not feasible, an evaluation of their eligibility for listing on the NRHP as “historic properties” or on the CRHR as “historic resources” shall be necessary to determine their significance and, if necessary, identify appropriate mitigation measures. This impact would be adverse; the following mitigation measures CUL-1A, CUL-1B, CUL-1C CUL-1D and CUL-1E, which provide clarification and supersede APM ECO-CUL-1, would mitigate this impact. Under CEQA, significant impacts would be mitigated to a level that is considered less than significant through implementation of these mitigation measures (Class II).

A potentially significant early twentieth century homestead and a historic well and corral with associated artifacts exists along the 138 kV transmission line alignment. At this time, no direct or indirect impacts resulting from ground disturbances or introduction of new visual elements are proposed. Therefore, no impacts to the potentially significant resources are identified.

During the field survey for the proposed 138 kV transmission line, 15 of the previously recorded sites in the APE were relocated, and 16 of the previously recorded sites in the APE were not

relocated. The area was also examined for evidence of new archaeological sites, features, or isolates. Five new sites and one isolate were identified within the Proposed ECO Substation Project APE. The 30 previously recorded sites and the five new sites within the APE for the 138 kV transmission line have not been evaluated for their eligibility for listing on the NRHP as historic properties or on the CRHR as historic resources, such that they are considered potentially significant cultural resources. Sites that would not be feasibly avoided and impacted would need to be formally evaluated to determine if they are significant.

Grading of access roads to project facilities and excavation of holes for the installation of the 138 kV transmission line poles and clearance structures have the potential to impact both surface and buried prehistoric and historic archaeological sites whose eligibility for listing on the NRHP as historic properties or on the CRHR as historic resources have not been determined.

Conductor installation has a low to moderate potential to affect cultural resources. Specific surveys shall be required to determine the presence of cultural resources at the particular work areas involved in this installation process. If site avoidance is not feasible, an evaluation of their eligibility for listing on the NRHP as historic properties or on the CRHR as historic resources shall be necessary to determine their significance and, if necessary, identify appropriate mitigation measures. This impact would be adverse; the following mitigation measures CUL-1A, CUL-1B, CUL-1C, CUL-1D, and CUL-1E, which provide clarification and supersede APM ECO-CUL-1, would mitigate this impact. Under CEQA, significant impacts would be mitigated to a level that is considered less than significant through implementation of these mitigation measures (Class II).

Because the cultural resources survey and NHPA Section 106 consultations are ongoing, the BLM has not yet made a determination of project effect. The project is committed to revising the project layout as necessary to avoid NRHP- and CRHR-eligible sites to the greatest extent possible. The BLM anticipates developing either a Programmatic Agreement (PA) or a Memorandum of Agreement (MOA) to complete its obligations regarding the Section 106 process. It will do so through consultation with other state and federal agencies, including the SHPO and ACHP, and interested Native American communities.

MM CUL-1A Develop and Implement a Historic Properties–Cultural Resources Treatment

Program: A Historic Properties–Cultural Resources Treatment Program (HPTP-CRTP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA/PA shall be developed among all federal, state, and local agencies to implement the HPTP-CRTP. The HPTP-CRTP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and

CRHR-eligible historic resources, including burials, cremations, or sacred features. The HPTP-CRTP shall detail provisions completing testing required to completed eligibility determinations. If NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRTP shall provide for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRTP shall indicate the locations where Native American monitors shall be required and shall specify the tribal affiliation of the required Native American monitor for each location.

MM CUL-1B Avoid Significant Resources: Known cultural resources that can be avoided shall be demarcated as Environmentally Sensitive Areas (ESAs). All potentially NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 50 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs.

MM CUL-1C Training for Contractor: Prior to construction, all applicant, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to effectively implement the mitigation measures and to comply with the applicable environmental laws and regulations (including penalties for violation under the appropriate state and federal laws), avoiding ESAs, the potential for exposing subsurface cultural resources and paleontological resources, and to recognize possible buried resources. This training shall include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.

MM CUL-1D Construction Monitoring: Prior to issuance of grading permit(s), the project applicant shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in

culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. A qualified paleontologist shall be retained to monitor earth disturbances in all areas of paleontological sensitivity, per approval by lead agency.

All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.

MM CUL-1E Discovery of Unknown Resources: In the event that cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the lead agencies, in consultation with other appropriate agencies and local governments, and the SHPO.

As part of the HPTP-CRTP, all collected cultural remains shall be cleaned, cataloged, and permanently curated with an appropriate institution along with all required reports and documentation. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.

Tule Wind Project

There are 22 archaeological sites within the presently surveyed project APE and 10 within the sample ROW that would likely be determined eligible for listing on the NRHP as historic properties or on the CRHR as historic resources. The project description includes measures to

avoid sites within the APE and ROW as feasible by shifting the project layout to reduce significant impacts. Of these, two sites (SDI-7150, Tule-CW-17) are situated at the outer edge of the 400-foot surveyed corridor and can be avoided without changing the project layout. Five sites (Tule-CW-11, Tule-CW-12, SDI-10359, Tule-CW-25, and Tule-EP-08) are within the project footprint, but can be avoided through minor shifts to the project layout. Three sites (SDI-19001/19003, SDI-17817, and SDI9223/17816) would require more substantial changes to the project footprint to ensure avoidance. Also, site SDI-19001/19003 is an intense habitation with possible human remains and will be avoided. Project engineers are working with resource specialists to redesign project components. An HPTP-CRTP and MOA/PA will be completed to comply with Section 106 in order to mitigate any adverse effects.

The impact on prehistoric and historic archaeological resources would be adverse. This impact would be mitigated through implementation of Mitigation Measures CUL-1A through CUL-1E, which provide clarification and supersede APMs TULE-CUL-1 through TULE-CUL-5. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A through CUL-1E (Class II).

When the Tule Wind Project is decommissioned, project components under the County's jurisdiction (13 wind turbines and a segment of the 138 kV transmission line) would be removed from County lands; prior land uses would resume according to local regulations and designated land uses in these areas. Decommissioning impacts to prehistoric and historic archaeological sites are anticipated to be similar to those of the construction phase, except that ground disturbances associated with construction would have already occurred. Because no additional ground disturbance outside of previously disturbed areas associated with decommissioning would occur, decommissioning activities would not result in any additional impacts on prehistoric archaeological sites. Identified impacts would be adverse, but implementation of Mitigation Measures CUL-1A through CUL-1E would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

ESJ Gen-Tie Project

CA-SDI-6119, CA-SDI-19492, and CA-SDI-19493 would be directly impacted by the proposed project as currently designed. CA-SDI-6119 would be impacted by construction and maintenance of the Legal Property Access Road. CA-SDI-19494 has the potential to be indirectly impacted by project construction and maintenance activities. These sites within the APE have been tested and no longer have the potential to yield important information.

The remaining 10 sites identified within the project APE have not been formally tested for NRHP eligibility as historic properties, for CRHR eligibility as historic resources, or RPO significance.

As they may have the potential to yield information on prehistory, they are all considered potentially significant cultural resources. However, no impacts to these sites within the APE are posed by the Proposed ESJ Gen-Tie Project's construction or operation activities.

Six isolates were identified. Artifact isolates are not eligible for listing on the NRHP as "~~historic properties~~" or on the CRHR as "~~historic resources~~." They also are characterized by County RPO criteria as "~~not important~~" resources, requiring no work beyond appropriate documentation and discussion.

Impacts to unknown resources would be adverse; implementation of Mitigation Measures CUL-1A through CUL-1E, which provide clarification and supersede APMs ESJ-CUL-1 and ESJ-CUL-3, would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of these measures, and would ensure that impacts to cultural resources, including unknown resources, would be avoided (Class II).

Proposed PROJECT

Intensive surveys of the Proposed PROJECT APE have identified several sites that appear to be potentially "~~historic properties~~" eligible for NRHP listing and "~~historic resources~~" eligible for CRHR listing. Of these, numerous sites would be feasibly avoided by minor project redesign. Those sites that would not be feasibly avoided and would be impacted would need to be formally evaluated to determine if they are significant. Although project-level information has not been developed at this time and the project sites have not been surveyed for historic resources, construction of the Campo, Manzanita, and Jordan wind energy projects could result in similar adverse changes to known significant prehistoric and historic archaeological resources. Surveys to determine on-site resources would be required for those projects under a separate environmental review process. However, if known sites could not be avoided then those sites would need to be formally evaluated to determine significance. Therefore, identified impacts would be adverse, but an HPTP and MOA/PA will be completed to comply with Section 106 in order to mitigate any adverse effects. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impact CUL-2: **Construction of the project would cause an adverse change to sites known to contain human remains, either in formal cemeteries or buried Native American remains.**

ECO Substation Project

Because no known cemeteries exist and no recorded Native American or other human remains have been found within or adjacent to the project area, the potential for the inadvertent discovery of Native American or other human remains during subsurface construction is considered low. However, any adverse effect to human remains would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, and CUL-2, which provide clarification and supersede APM ECO-CUL-1, to a level that is considered less than significant (Class II).

MM CUL-2 Human Remains: If human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the ~~most~~ most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

Tule Wind Project

The project does not contain any formal cemeteries, nor have any human remains been identified within or adjacent to the project site during the surveys. Two sites have the potential to contain human remains. Although low, the potential exists for human remains to be found within the project site during future surveys or construction activities. Any adverse effect to human remains would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, and CUL-2 which provide clarification and supersede APM TULE-CUL-5 (Class II).

When the Tule Wind Project is decommissioned, project components under the County’s jurisdiction (13 wind turbines and a segment of the 138 kV transmission line) would be removed from County lands; prior land uses would resume according to local regulations and designated land uses in these areas. Decommissioning impacts to human remains are anticipated to be

similar to those of the construction phase, except that ground disturbances associated with construction would have already occurred. Because no additional ground disturbance outside of previously disturbed areas associated with decommissioning would occur, decommissioning activities would not result in any additional impacts on potential human remains. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

ESJ Gen-Tie Project

No historic cemeteries or archaeological sites potentially containing human remains have been identified within 1 mile of the project APE. Therefore, the potential for the inadvertent discovery of Native American or other human remains during subsurface construction is considered low. However, any adverse effect to human remains would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, and CUL-2, which provide clarification and supersede APM ESJ-CUL-1 (Class II).

Proposed PROJECT

Because no known cemeteries exist and no recorded Native American or other human remains have been found within or adjacent to the PROJECT area, the potential for the inadvertent discovery of Native American or other human remains during subsurface construction is considered low. However, one site has the potential to contain human remains in the Tule Wind Project area.

The potential exists for human remains to be found during survey of the unsurveyed portion of the Proposed PROJECT or future surveys or construction activities. This consists of collector lines and access roads along the western side of the project. Most of the unsurveyed land lies within the Campo and Manzanita reservations, with a portion in California State Lands Commission jurisdiction. Although the potential for impacts to human remains either in formal cemeteries or buried Native American remains resulting from construction of the Campo, Manzanita, and Jordan wind energy projects is unknown and has not been evaluated at this time, construction of these projects could result in a similar level of impact. Any adverse effect to human remains would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, and CUL-2 (Class II).

Impact CUL-3: Construction of the project would cause an adverse change to Traditional Cultural Properties.

ECO Substation Project

The proposed ECO Substation Project would have the potential to cause an adverse effect (substantial adverse change) to the characteristics of a TCP as defined by federal guidelines. The scope, nature, and extent of any TCPs associated with the APE are not presently known. Therefore, potential NRHP eligibility of unknown TCPs must be assumed. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts to TCPs would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, CUL-1D, and CUL-1E, CUL-2, and CUL-3, which provides clarification and supersedes APMs ECO-CUL-1, ECO-CUL-3, and ECO-CUL-4 (Class II). In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be adverse; therefore, mitigation has been provided. However, the residual impact on TCPs cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM CUL-3 Complete Consultation with Native American and other Traditional Groups:

As required by NHPA Section 106, the applicant shall provide assistance to the lead agency, as requested, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the NHPA) and other traditional groups to assess the impact of the approved project on TCPs or other resources of Native American concerns. As directed by the lead agency, the applicant shall undertake required treatments, studies, or other actions that result from such consultation.

Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties–Cultural Resources Treatment Plan in consultation with the applicant and may include the following:

- Information regarding further developments in the projects;
- Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities;

- Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists;
- The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and
- Copies of all site records, survey reports, or other environmental documents.

Tule Wind Project

The NAHC has identified numerous Native American cultural resources within one-half mile of the proposed project area, although the location of these areas relative to project improvement areas has not been determined. Consultation with Native American tribes is ongoing. The scope, nature, and extent of any TCPs associated with the APE are not presently known. Therefore, potential NRHP eligibility of unknown TCPs must be assumed. The proposed Tule Wind Project would therefore have a potential to cause an adverse effect (substantial adverse change) to the characteristics of a historic property or TCP as defined by federal guidelines. Impacts to TCPs would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C CUL-1D and CUL-1E, CUL-2, and CUL-3, which provides clarification and supersedes APMs TULE-CUL-1, TULE-CUL-2, and TULE-CUL-3 (Class II). In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be significant under CEQA and cannot be mitigated to a level that is considered less than significant (Class I).

When the Tule Wind Project is decommissioned, project components under the County's jurisdiction (13 wind turbines and a segment of the 138 kV transmission line) would be removed from County lands; prior land uses would resume according to local regulations and designated land uses in these areas. Potential decommissioning impacts to traditional cultural properties are anticipated to be similar to those of the construction phase, except that ground disturbances associated with construction would have already occurred. Because no additional ground disturbance outside of previously disturbed areas associated with decommissioning would occur, decommissioning activities would not result in any additional impacts on traditional cultural properties. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

ESJ Gen-Tie Project

The scope, nature, and extent of any TCPs associated with the APE are not presently known. Therefore, potential NHRP eligibility of unknown TCPs must be assumed. The proposed ESJ Gen-Tie Project would have a potential to cause an adverse effect (substantial adverse change) to the characteristics of a historic property or TCP as defined by federal guidelines. Impacts to TCPs would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, CUL-1D and CUL-1E, CUL-2, and CUL-3, which provides clarification and supersedes APMs ESJ-CUL-1, ESJ-CUL-3, and ESJ-CUL-4 (Class II). In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be significant under CEQA and cannot be mitigated to a level that is considered less than significant (Class I).

Proposed PROJECT

The Proposed PROJECT, as well as the Campo, Manzanita, and Jordan wind energy projects, would have a potential to cause an adverse effect (substantial adverse change) to the characteristics of potential historic properties or TCPs as defined by federal guidelines. This impact would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measure CUL-1A through CUL-1E, CUL-2, and CUL-3 (Class II). In some cases, avoiding direct and indirect impacts to TCPs such as traditional landscapes, topographic elements including sacred mountains, or use areas may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be significant under CEQA and cannot be mitigated to a level that is considered less than significant (Class I).

Impact CUL-4: Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.

ECO Substation Project

Based on archival information and survey results, no historic architectural resources are within three of the four Proposed PROJECT components—the ECO Substation site, the SWPL Loop-In areas of disturbance, and the Boulevard Substation rebuild site.

Old Highway 80, determined to be eligible for listing on the NRHP and CRHR, and another potentially significant historic resource, the San Diego and Arizona Railroad, are within the proposed 138 kV transmission line alignment. These resources would be spanned by the line and would not be physically altered during construction. Therefore, there would be no direct impacts to these resources. Transmission lines supported by wooden poles presently cross these areas. Although the wooden poles will be replaced with higher steel poles, the existing transmission lines would remain. The replacement of wooden poles by higher steel poles would not change the character of the San Diego and Arizona Railroad and Old Highway 80's use, and would not change the physical features within these historic resources' setting that contribute to its historic significance (Engineering-Environmental Management, Inc. 2010). The introduction of steel poles would not introduce visual elements that would diminish the integrity of the San Diego and Arizona Railroad and Old Highway 80's' significant historic features. Therefore, direct impacts on the NRHP-eligible historic properties would be less than significant relative to federal criteria. The replacement of wooden poles by higher steel poles would not result in a substantial adverse change in the San Diego and Arizona Railroad and Old Highway 80's historical significance pursuant to CEQA Guidelines criteria, because there would be no demolition or alteration of the physical resource or its immediate surroundings such that the significance of the historical resources would be materially impaired. Direct impacts may inadvertently occur by equipment crossing and installation of project elements during construction activities. These actions would be temporary and would not result in long-term impairment of the historical fabric or nature of the historic properties and historic resources. Therefore, identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Tule Wind Project

To date, the intensive archaeological survey of the project area has identified two historic architectural resources potentially eligible for the NRHP and CRHR within the project area. While surveys have only identified two resources, the collector lines and access roads along the western side of the Tule Wind Project have not yet been surveyed for historic architectural resources. Most of the unsurveyed land lies within the Campo and Manzanita reservations, with a portion in California State Lands Commission jurisdiction. If any historic resources are found in the remaining surveys, the project could impact these resources if activities are not properly managed and project components are sited in conflict with these resources. Identified impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A. .

When the Tule Wind Project is decommissioned, project components under the County's jurisdiction (13 wind turbines and a segment of the 138 kV transmission line) would be removed from County lands; prior land uses would resume according to local regulations and designated

land uses in these areas. Potential decommissioning impacts to historic period resources are anticipated to be similar to those of the construction phase, except that ground disturbances associated with construction would have already occurred. Because no additional ground disturbance outside of previously disturbed areas associated with decommissioning would occur, decommissioning activities would not result in any additional impacts on historic period resources. Therefore, no direct impacts to historic architectural resources would occur due to decommissioning of the Tule Wind Project (No Impact).

ESJ Gen-Tie Project

Only one historic artifact, an isolated lead ball, was identified on the project APE. Isolates are considered insignificant; therefore, no impacts to historic properties would occur due to long-term project operations (No Impact).

Proposed PROJECT

Although two potentially significant historic architectural resources (Old Highway 80 and SD&AE RR) are within Proposed PROJECT study area these resources would be spanned and would not be physically altered during construction. In addition, the introduction of steel poles would not introduce visual elements that would diminish the integrity of the resources' significant historic features. Therefore, direct impacts on the NRHP-eligible historic properties would be less than significant relative to federal criteria. While there would be no demolition or alteration of the physical resources or their immediate surroundings such that the significance of the historical resources would be materially impaired, these resources may be inadvertently impacted during equipment crossing and installation of project elements during construction activities. However, due to the short-term nature of construction, identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

The western portion of the Proposed PROJECT study area (land underlying the collector cable and access roads along the western side of the Tule Wind Project as well as the Campo, Manzanita, and Jordan wind energy project sites) has not yet been surveyed for historic architectural resources. Most of the unsurveyed land lies within the Campo and Manzanita reservations, with a portion in California State Lands Commission jurisdiction. If historic resources are ultimately found in the remaining surveys (or during future surveys to occur under a separate environmental review process for the Campo, Manzanita, and Jordan wind energy projects) construction activities could impact resources if activities are not properly managed. While conflicts with resources could be minimized through redesign, if redesign is not a viable option then the identified impact would be adverse. Therefore, mitigation has been provided to mitigate this impact. Under CEQA, the impact would be considered significant but

could be reduced to a level less than significant (Class II) with implementation of Mitigation Measures CUL-1A.

Impact PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.

ECO Substation Project

ECO Substation 500 kV

Construction plans for the ECO Substation indicate the need for extensive excavations for two pads, a western pad to house the 230/138 kV equipment yard and an eastern pad to house the 500 kV equipment yard. Because of the general westerly slope of the ground surface at the proposed ECO Substation site, both pad excavations will involve a cut-fill transition where the eastern portion of the pad is cut to produce fill material to build the western portion of the pad. The plans suggest a maximum cut of approximately 35 feet for the 230 kV equipment yard and up to approximately 65 feet for the 500 kV equipment yard. This level of excavation will result in significant impacts to the PFYC Low Sensitivity – Class 1 older alluvium and fanglomerate deposits in this area. Similarly, these deep pad excavations will also result in extensive and significant impacts to the PFYC High Sensitivity – Class 4 Table Mountain Formation. Without knowing the true thickness of the overlying older alluvium and fanglomerate deposits, it is not currently possible to determine the exact volume of Table Mountain Formation that will be impacted by these excavations. However, given the extent of the proposed pad excavations, impacts to the paleontologically highly sensitive Table Mountain Formation may occur. Because of the cut-fill transition nature of the proposed sheet pad excavations, the greatest impacts would potentially occur in the eastern (i.e., cut) portions of each pad. This impact would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through -1E, which provide clarification and supersede APMs ECO-CUL-8, ECO-CUL-9, and ECO-CUL-10 (Class II).

MM PALEO-1 Avoid paleontological resources or reduce impacts to less than significant.

MM PALEO-1A Inventory and evaluate paleontological resources in the Final APE. Prior to construction, the applicant shall conduct and submit to the lead agency and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.

MM PALEO-1B Develop Paleontological Monitoring and Treatment Plan. Following completion and approval of the paleontological resources inventory and prior to construction, the applicant shall prepare and submit to the lead agency and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.

MM PALEO-1C Monitor Construction for Paleontology. Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), the applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC – Class 3) to high (PFYC – Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity

shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.

MM PALEO-1D Conduct paleontological data recovery. If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).

MM PALEO-1E Train construction personnel. Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and

notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

- Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).

SWPL Loop-In

Construction of the loop-in segment from the SWPL 500 kV transmission line to the ECO Substation will involve installation of four new transmission towers, each having four drilled concrete piers. Creation of each pier borehole would cause significant impacts to the low to moderately sensitive older alluvium and fanglomerate deposits in this area. Depending on the thickness of these Pleistocene-age deposits, the paleontologically highly sensitive (PFYC - Class 4) Miocene-age Table Mountain Formation would also be significantly impacted by the pier boreholes. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E, which provide clarification and supersede APMs ECO-CUL-8, ECO-CUL-9, and ECO-CUL-10 (Class II).

138 kV Transmission Line

Construction of the 13.3-mile-long 138 kV transmission line will involve installation of approximately 98 steel poles and 9 wooden poles. Construction of the section between Jacumba Valley and Jacumba Peak and between Jacumba Valley and the ECO Substation may result in significant impacts to paleontological resources preserved in the high sensitivity (PFYC - Class 4) Table Mountain Formation. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E, which provide clarification and supersedes APMs ECO-CUL-8, ECO-CUL-9, and ECO-CUL-10 (Class II).

Because the area west of approximate milepost (MP) 9.25 to the Boulevard Substation rebuild is underlain by geologic deposits with zero paleontological resource sensitivity, construction activities along this portion of the ROW will have no impacts (No Impact).

Boulevard Substation Rebuild

Construction activities will not impact sensitive paleontological resources because none are present at the site.

Operation and maintenance activities associated with the Boulevard Substation rebuild would be conducted in areas previously disturbed for project construction. As a result, paleontological resources will not be encountered during these activities, and there will be no impact.

Tule Wind Project

According to the Paleontological Resource Map listed in the BLM Resource Management Plan, the project area is listed as containing Class 1, low sensitivity, and Class 2, moderate sensitivity, within the project area. The County has identified the project area as possessing a “low” rating of possessing paleontological resources. No unique geologic features were found on site to date (70% surveyed), and thus, there is a low likelihood (PFYC - Class 2) of identifying any unique paleontological or unique geologic features in the project area. If any paleontological resources are identified in the remaining survey area, this impact would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II). These proposed mitigations are consistent with BLM Paleontological Resource Guidelines.

When the Tule Wind Project is decommissioned, project components under the County’s jurisdiction (13 wind turbines and a segment of the 138 kV transmission line) would be removed from County lands; prior land uses would resume according to local regulations and designated land uses in these areas. Potential decommissioning impacts to paleontological resources are anticipated to be similar to those of the construction phase, except that ground disturbances associated with construction would have already occurred. Because no additional ground disturbance outside of previously disturbed areas associated with decommissioning would occur, decommissioning activities would not result in any additional impacts on paleontological resources. This impact would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measure PALEO-1A through PALEO-1E (Class II).

ESJ Gen-Tie Project

The ESJ Gen-Tie Project site is underlain by geologic rock consisting of Holocene alluvium and fanglomerate (Qya) and Peninsular Ranges Batholith (Klp). Holocene fanglomerates are known to occur west of the Jacumba Mountains in the vicinity of the proposed ESJ Gen-Tie Project site (at this location they overlie older alluvium and fanglomerate deposits) (PaleoServices, Inc. 2009). Due to the relatively young geologic age of these deposits, they have low paleontological resources sensitivity (PFYC - Class 2). Fossils have not been encountered in the Holocene alluvium and fanglomerate deposits in the project area, and the likelihood for fossils within these deposits is remote. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to the geologic understanding of the area. The project paleontologist will determine the level of monitoring required in these areas as stipulated by San Diego County regulations. Due to depth of formation, the Peninsular Batholith Ranges are assigned a very low paleontological resource sensitivity (San Diego Natural History Museum 1993) (PFYC - Class 1); therefore, no impacts to paleontological resources would occur in this formation.

Paleontological impacts within APEs containing Holocene alluvium and fanglomerate would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measure PALEO-1A through PALEO-1E, which provide clarification and supersedes APM ESJ-CUL-04 (Class II).

Proposed PROJECT

Extensive excavations of up to 35 feet in depth for the ECO Substation would result in significant impacts to the low to moderate sensitivity (BLM PFYC - Class 2 and 3) of older alluvium and fanglomerate deposits in this area. Similarly, these deep pad excavations would also result in extensive and significant impacts to the high sensitivity (BLM PFYC - Class 4) Table Mountain Formation.

The rest of the Proposed PROJECT is listed as containing Class 1, low sensitivity, and Class 2, moderate sensitivity, according to the Paleontological Resource Map listed in the BLM Resource Management Plan (BLM PFYC - Class 2 and 3). The County has identified the project area as possessing a "low" rating of possessing paleontological resources. Given the proximity of the Campo, Manzanita, and Jordan wind energy projects to the Proposed PROJECT study area, similar rock formations are assumed to exist at these project sites and therefore construction activities could impact similar paleontological resources. Identified impacts would be adverse; therefore, mitigation has been provided that would mitigate this impact. Under CEQA, impacts

would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E.

D.7.4 ECO Substation Project Alternatives

Table D.7-10 summarizes the impacts and classification of the impacts under CEQA that have been identified for the ECO Substation Project alternatives.

Table D.7-10
Cultural and Paleontological Impacts Identified for ECO Substation Project Alternatives

Impact No.	Description	Classification
ECO Substation Alternative Site		
ECO-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ECO-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ECO-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III
ECO-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
ECO Partial Underground 138 kV Transmission Route Alternative		
ECO-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ECO-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ECO-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III
ECO-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources	Class II
ECO Highway 80 138 kV Transmission Route Alternative		
ECO-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ECO-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ECO-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III

Table D.7-10 (Continued)

Impact No.	Description	Classification
ECO-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
ECO Highway 80 Underground 138 kV Transmission Route Alternative		
ECO-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ECO-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ECO-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class III
ECO-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II

D.7.4.1 ECO Substation Alternative Site

Environmental Setting/Affected Environment

Section D.7.1 describes the environmental setting for the proposed ECO Substation Project. This alternative would result in a shift of the proposed ECO Substation site 700 feet to the east. The environmental setting for this alternative would be different from the proposed PROJECT defined in Section D.7.1 in the following ways.

All of CA-SDI-7079 and nearly all of CA-SDI-19627 would be avoided. Only peripheral portions of CA-SDI-19627 outside of the densest areas containing a possible subsurface deposit (and having the greatest potential for yielding information important in prehistory) would be impacted.

One additional archaeological site identified during the intensive survey of the ECO Substation APE and periphery, CA-SDI-19626, is within the ECO Substation Alternative Site. CA-SDI-19626 is a small deposit with two stone tool flakes and approximately 20 ceramic fragments scatter; it has no apparent subsurface depth or associated features. Based on the limited artifact assemblage and the apparent lack of subsurface features, this site likely represents a one-time or limited use (Engineering-Environmental Management, Inc. 2010).

A supplemental intensive survey of the ECO Substation Alternative Site access road APE (ASM Affiliates, Inc. 2010b) identified that construction would impact the periphery of previously recorded prehistoric site CA-SDI-6119 containing historic tin cans. Excavations at CA-SDI-6119 have determined that the site is not eligible for listing on the NRHP as an “historic property” and listing on the CRHR as “historic resource,” or the testing has exhausted their research potential

(DOE 2010). Therefore, they are not considered potentially eligible for listing on the NRHP and CRHR (CEQA Guidelines Section 15064.5) under Criterion D, because the sites are not “likely to yield information important to prehistory or history.” Additionally, the site is not a “unique” archaeological resource as defined by CEQA Statutes Section 21083.2(g), because they may contain information needed to answer important scientific questions; there may be demonstrable public interest in that information; and they may be directly associated with a scientifically recognized, important prehistoric event.

Two previously unrecorded historic trash scatters were identified within the proposed access road alignment. The sites, temporarily designated ECS-1 and ECS-2, are characterized by bottle glass, metal food containers, and ceramics. The sites contain bottles that are dated to the end of the 19th century through the first half of the 20th century. No systematic excavations to define the sites' eligibility for listing on the NRHP as an “historic property” and listing on the CRHR as “historic resource” have been conducted (ASM Affiliates, Inc. 2010b). Though the significance of the two historic archaeological trash scatters has not been established, the limited nature of historic trash (i.e., bottles, cans, and metal containers) and lack of association with any structure or habitation suggest only a limited potential for NRHP and CRHR listing eligibility.

Four historic period archaeological isolates, including metal cans and a fuel canister, and one prehistoric metate grinding stone, were identified in the supplemental survey. By definition, none of the isolated artifacts are considered eligible for listing on the NRHP as an “historic property” or listing on the CRHR as “historic resource.”

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impacts CUL-1, CUL-2, and CUL-3: This alternative would avoid the potentially significant prehistoric archaeological site CA-SDI-19627, and site CA-SDI-7079 that is considered to not be eligible for NRHP listing as a “historic property” or for CRHR listing as a “historic resource.” CA-SDI-19626, a small prehistoric artifact scatter reflecting short-term or limited use, and peripheral areas of CA-SDI-6119 containing historic tin cans would be impacted, but these sites are not considered to be eligible for NRHP listing as a “historic property” and for CRHR listing as a “historic resource.” The significance of the two historic archaeological trash scatters, ECS-1 and ECS-2, has not been established, though the limited nature of historic trash (bottles, cans, and metal containers) and lack of association with any historic structure or habitation area suggest only a limited potential for NRHP and CRHR listing eligibility. Identified CUL-1 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A

through CUL-1E. Therefore, the ECO Substation Alternative would reduce impacts to significant prehistoric archaeological sites, unknown human remains, and TCPs attributed to construction of the ECO Substation site without increasing impacts to other resources. Impacts associated with construction of the 138 kV transmission line would, however, be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Identified CUL-1 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E. Identified CUL-2 impacts would be adverse, and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C and CUL-2. Identified CUL-3 impacts would be adverse, and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even after implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Impact CUL-4: Historic-architectural (built environment) resource impacts under this alternative would be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Similar to the CUL-4 impacts discussed in Section D.7.3.3 for the proposed ECO Substation Project, less than significant (Class III) impacts to historical resources would occur under this alternative.

Impact PALEO-1: Paleontological resource impacts under this alternative would be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Identified PALEO-1 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of project Mitigation Measures CUL-1A through CUL 1E and PALEO-1A through PALEO-1E.

D.7.4.2 ECO Partial Underground 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

With the exception of placing the proposed 138 kV transmission line underground between MP 9 and the rebuilt Boulevard Substation, components of this alternative would be the same as those identified for the ECO Substation Project. Under this alternative, from MP 9 to the rebuilt Boulevard Substation, the proposed 138 kV transmission line would be installed underground (instead of on overhead transmission poles) along the same route as the proposed ECO

Substation Project. Since this alternative would follow the same route as the proposed ECO Substation Project, the setting would be the same as described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

This alternative would consist of placing the proposed 138 kV transmission line underground between MP 9 and the rebuilt Boulevard Substation and has the potential to reduce cultural and paleontological impacts. During construction, soil disturbance between MP 9 and the rebuilt Boulevard Substation would be greater under this alternative as open trenching would be more invasive than excavation for transmission line poles.

Impacts CUL-1 through CUL-3 and PALEO-1: Underground activities between MP 9 and the rebuilt Boulevard Substation would disturb more ground than construction/excavation associated with the proposed overhead transmission line along the same segment. Therefore, this alternative would slightly increase impacts to archaeological and paleontological resources. Although the potential for impacts would be greater due to underground activities, impacts would be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Identified CUL-1 impacts would be adverse and therefore mitigation has been provided. Under CEQA, impacts would be considered significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E. Identified CUL-2 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C and CUL-2. Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I) even after implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Identified PALEO-1 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures PALEO-1A through PALEO-1E.

Impact CUL-4: Similar to the proposed ECO Substation Project, two potentially significant historic resources—the San Diego and Arizona Railroad and Old Highway 80—are within the proposed 138 kV transmission line alignment. This alternative would not alter the transmission line alignment between the ECO Substation Site and these resources such that impacts would be substantially different when compared to those of the proposed ECO Substation Project.

Therefore, similar to the proposed ECO Substation Project, less than significant (Class III) impacts would occur.

D.7.4.3 ECO Highway 80 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

With the exception of the Old Highway 80 138 kV transmission line route alternative, components of this alternative would be the same as those identified for the proposed ECO Substation Project. From the intersection of the SWPL transmission line and Old Highway 80 (approximately 1.5 miles northwest of Jacumba), this alternative would expand and use an existing utility ROW and overbuild an existing distribution line for approximately 4.8 miles along Highway 80 to the rebuilt Boulevard Substation. The affected segment of Old Highway 80 (and the ECO Highway 80 138 kV Transmission Route Alternative) is entirely within the APE; therefore, the environmental setting would remain the same as discussed in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impacts CUL-1 through CUL-3 and PALEO-1: Impacts would reflect impact findings previously discussed in Section D.7.3.3 for the proposed ECO Substation Project.

Increased ROW width, including temporary construction impacts along Old Highway 80, would slightly increase impacts to archaeological and paleontological resources. In addition, excavation for transmission line poles along Old Highway 80 would probably be deep enough to impact the highly sensitive Table Mountain Formation. Although the potential for impacts would be greater under this alternative, impacts would be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Identified CUL-1 impacts would be adverse and therefore mitigation has been provided. Under CEQA, impacts would be considered significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E. Identified CUL-2 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C and CUL-2. Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I) even after implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Identified PALEO-1 impacts would be significant and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated

to a level that is considered less than significant (Class II) with Mitigation Measures PALEO-1A through PALEO-1E.

Impact CUL-4: Similar to the proposed ECO Substation Project transmission line, two potentially significant historic resources—the San Diego and Arizona Railroad and Old Highway 80—are within the alternative 138 kV transmission line alignment. Short-term construction traffic using these routes would not result in adverse effects. Introduction of modern project elements would not introduce long-term indirect visual impacts that would materially alter those physical characteristics of the roadway that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the NRHP or CRHR. Therefore, similar to the proposed ECO Substation Project, less than significant (Class III) impacts to historic architectural resources would occur under this alternative.

D.7.4.4 ECO Highway 80 Underground 138 kV Transmission Route Alternative

Environmental Setting/Affected Environment

This alternative would essentially be the same as described for the ECO Highway 80 138 kV Transmission Route Alternative with the exception that the proposed 138 kV transmission line would be installed underground generally within the existing ROW along Old Highway 80. Installation of the new 138 kV line underground along the existing ROW would include the removal of wooden poles and the transfer of existing lines to underground conduit.

The environmental setting adjacent to the affected segment of Old Highway 80 associated with this alternative would be the same as previously identified for the ECO Highway 80 138 kV Transmission Route Alternative in Section D.7.4.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

This alternative has the potential to reduce cultural and paleontological impacts by generally using an existing utility ROW. Undergrounding the proposed and existing line when compared with establishing an entirely new 138kV ROW would result in fewer impacts. During construction, soil disturbance would be greater under this alternative; open trenching would be more invasive than excavation for transmission line poles.

Impacts CUL-1 through CUL-3 and PALEO-1: Impacts would reflect cultural and paleontological resources impacts discussed in D.7.3.3 for the proposed ECO Substation Project. Increased ROW width would disturb more ground, including temporary construction impacts along Highway 80, and therefore slightly increase the impact to archaeological and paleontological resources. Excavation would probably be deep enough to impact the highly

sensitive Table Mountain Formation. Although the potential for impacts would be greater under this alternative, impacts would be similar to those discussed in Section D.7.3.3 for the proposed ECO Substation Project. Identified CUL-1 impacts would be adverse and therefore mitigation has been provided. Under CEQA, impacts would be considered significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E. Identified CUL-2 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C and CUL-2. Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I) even after implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Identified PALEO-1 impacts would be significant and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures PALEO-1A through PALEO-1E.

Impact CUL-4: Two potentially significant historic resources—the San Diego and Arizona Railroad and Old Highway 80—are within the proposed 138 kV transmission line alignment. Undergrounding would remove current visual impacts to these resources by removing poles and lines. Operation and maintenance activities would be conducted within existing facility fence lines and would not affect these two resource areas. Therefore, there would be no direct impacts and visual impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

D.7.5 Tule Wind Project Alternatives

Table D.7-11 summarizes the impacts and classification of the impacts under CEQA that have been identified for the Tule Wind Project alternatives.

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.7-11
Cultural and Paleontological Impacts Identified for Tule Wind Project Alternatives**

Impact No.	Description	Classification
Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
TULE -CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE -CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE -CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant architectural (built environment) resources.	Class II
TULE -PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
TULE -CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE -CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
TULE- PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
TULE -CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE -CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE -CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
TULE- PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
TULE -CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE -CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE -CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
TULE - PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
Tule Wind Alternative 5, Reduction in Turbines		
TULE-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II

Table D.7-11 (Continued)

Impact No.	Description	Classification
TULE -CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
TULE -CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
TULE -CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	Class II
TULE- PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II

D.7.5.1 Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

Under this alternative, the Tule Wind Project’s collector substation and operations and maintenance (O&M) facility would be relocated from BLM-administered land in the McCain National Cooperative Land and Wildlife Management Area to County of San Diego jurisdictional land on Rough Acres Ranch. Proposed turbines would be located in the same location as identified in the proposed Tule Wind Project. The relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission line route and a longer overhead cable collector system.

Since this alternative would still be located within the APE, the environmental setting would be the same as previously identified for the originally proposed Tule Wind Project outlined in Section D.7.3.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

This alternative has potential to reduce impacts due to siting and reduced 138 kV transmission line ROW. The alternative site for the O&M and collector substation facility is in more of a disturbed state as compared with proposed sites and would reduce access requirements. The 138 kV transmission line route is 5.6 miles shorter when compared with the proposed route.

Impact CUL-1: As with the proposed Tule Wind Project, this alternative has an identified habitation site (CW-12) located near the south end of the string of G turbines, in the vicinity of the alternate O&M facility and collector substation site on Rough Acres Ranch. The site covers multiple facilities, and avoidance would require a minor shift in the project layout. If the project footprint is unable to avoid this resource, this impact would be adverse. Therefore, similar to the

proposed Tule Wind Project, identified impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impacts associated with project decommissioning impacts would be the same as those identified for the proposed Tule Wind Project in Section D.7.3.3.

Impact CUL-2: The area paralleling McCain Valley Road has not been surveyed for cultural resources. As part of the H RTP-CRTP, the alternative APE would be subject to intensive surveys similar to the proposed project. The potential exists for human remains to be found within the project site during future surveys or construction activities. Access roadways are proposed to be constructed within this area, and avoidance of this area has been suggested. It would be necessary to revise the project roadway design to avoid this area. This alternative would have the same level of impacts to cultural resources, including those associated with project decommissioning, as the proposed Tule Wind Project. Identified impacts would be adverse and therefore, mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C, and CUL-2.

Impact CUL-3: As with construction of the proposed Tule Wind Project, in some cases, avoiding direct and indirect impacts to TCPs (such as traditional landscapes, topographic elements including sacred mountains, or use areas) during construction of this alternative may not be completely feasible given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Impact CUL-4: One potentially significant historic resource—Old Highway 80—would be traversed by the alternative 138 kV transmission line alignment. Operation and maintenance activities would be conducted within existing construction limits and would not affect this resource area. While conducted surveys have only identified two resources, the collector lines and access roads along the western side of the Tule Wind Project have not yet been surveyed for historic architectural resources. If any historic resources are found in the remaining surveys, the project could impact these resources if activities are not properly managed and project components are sited in conflict with these resources. Identified impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be

significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A.

Similar to the proposed Tule Wind Project, no long-term impacts associated with decommissioning to historic architectural resources would occur under this alternative.

Impact PALEO-1: As discussed in Section D.7.3.3 for the proposed Tule Wind Project, there is a low likelihood of identifying any unique paleontological or unique geologic features in the general project area. However, because the entire project site was not surveyed paleontological resources could potentially be located at alternative project component sites. Therefore, identified PALEO-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II).

D.7.5.2 Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

This alternative would result in the underground placement of the alternative Tule Wind 138 kV Gen-Tie Route 2, from the alternate collector substation to the rebuilt Boulevard Substation component of the ECO Substation. From the alternative collector substation the line would travel approximately 1 mile east and would then turn south along McCain Valley Road, and then west underground along Old Highway 80 until reaching the Boulevard Substation rebuild. Project components under this alternative would all be within the Tule Wind Project site boundary. As such, the environmental setting would be the same as that described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

During construction, soil disturbance between the relocated collector substation and the rebuilt Boulevard Substation would be greater under this alternative (when compared with the proposed Tule Wind Project) due to open trenching for approximately 4.1 miles along the transmission line alignment. Although the 138 kV transmission line associated with this alternative would be shorter in length than that of the overhead transmission line associated with the proposed Tule Wind Project, open trenching would be more invasive than excavation for transmission line poles. Impacts associated with project decommissioning would be similar to the proposed project.

Impact CUL-1: Although impacts would be slightly greater under this alternative due to excavation activities along the underground transmission line alignment, CUL-1 impacts would be similar to those discussed in Section D.7.3.3 for the proposed Tule Wind Project. As with the proposed Tule Wind Project, if the alternative project were unable to avoid identified archaeological resources then a significant impact would occur. Therefore, identified impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impacts associated with project decommissioning would be similar to those identified in Section D.7.3.3 for the proposed Tule Wind Project.

Impact CUL-2: The area paralleling McCain Valley Road has not been surveyed for cultural resources. As part of the H RTP-CRTP, the alternative APE would be subject to intensive surveys similar to the proposed project. The potential exists for human remains to be found within the project site during future surveys or construction activities. Access roadways are proposed to be constructed within this area, and avoidance of this area has been suggested. It would be necessary to revise the project roadway design to avoid this area. This alternative would have the same level of impacts to cultural resources, including project decommissioning, as the proposed project. Identified impacts would be adverse and therefore, mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C, and CUL-2.

Impact CUL-3: As with construction of the proposed Tule Wind Project, in some cases, avoiding direct and indirect impacts to TCPs (such as traditional landscapes, topographic elements including sacred mountains, or use areas) during construction of this alternative may not be completely feasible given the geographic expanse of some of these resources. Impacts to TCPs may be greater due to greater surface disturbing activities associated with the alternative transmission line. In this event, the residual impact on TCPs would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Impact CUL-4: One potentially significant historic resource—Old Highway 80—is located along the alternative transmission line alignment. Undergrounding the transmission line would avoid the installation of additional visual impacts (e.g., transmission line structures) to Old

Highway 80. Operation and maintenance activities would be conducted within existing construction lines and would not affect this resource area. Because the entire project area has not been surveyed, similar to the proposed Tule Wind Project, the project could impact resources if activities are not properly managed and project components are sited in conflict with these resources. Identified impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A.

Impact PALEO-1: As discussed in Section D.7.3.3 for the proposed Tule Wind Project, there is a low likelihood of identifying any unique paleontological or unique geologic features in the general project area. However, because the entire project site was not surveyed paleontological resources could potentially be located at alternative project component sites. Therefore, identified PALEO-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II).

D.7.5.3 Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch

Environmental Setting/Affected Environment

This alternative would relocate the O&M facility and collector substation to Rough Acres Ranch, extend the collector cable system, and shorten and reroute the 138 kV transmission line primarily along Ribbonwood Road and Old Highway 80. The relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission line route (approximately 5.4 miles) and a longer overhead cable collector system. Changes would take place within the Tule Wind Project APE. As such, the environmental setting would be the same as described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

This alternative would extend the collector cable system and shorten the length of the 138 kV transmission line; however, these changes would not result in any changes to the impacts analyzed under the Tule Wind Project (see Section D.7.3.3).

Impact CUL-1: This alternative has a habitation site identified and located along the transmission line south of I-8. This area is located adjacent to Old Highway 80 and could be avoided by adjusting the placement of the transmission line poles. The remaining archaeological

resources within the alternative project area are the same as those within the proposed project area and likely would be feasibly avoided. Therefore, similar to the proposed Tule Wind Project identified impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impact CUL-2: Conducted surveys have not identified human remains within or adjacent to the project site, although site SDI-19001/19003 was identified as a complex habitation site with the potential to contain human remains. The potential exists for human remains to be found within the project site during future surveys or construction activities. Access roadways are proposed to be constructed within this area, and avoidance of this area has been suggested. It would be necessary to revise the project roadway design to avoid this area. Therefore (similar to the proposed Tule Wind Project) identified impacts would be adverse and mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C, and CUL-2.

Impacts CUL-3, CUL-4, and PALEO-1: CUL-3, CUL-4, and PALEO-1 impacts under this alternative would be similar to those identified in Section D.7.3.3 for the proposed Tule Wind Project. Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3. Old Highway 80 would be traversed by the alternative transmission line however, operational and maintenance activities associated with the transmission line would occur within existing construction line area and would not impact the resource area. However, because the entire project area has not been surveyed, similar to the proposed Tule Wind Project, the project could impact resources if activities are not properly managed and project components are sited in conflict with these resources. Identified CUL-4 impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A. Identified PALEO-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II).

D.7.5.4 Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch.

Environmental Setting/Affected Environment

This alternative would result in the underground placement of the proposed 138 kV transmission line Route 3. The proposed 138 kV transmission line would run underground from the alternate collector substation approximately 3 miles west to Ribbonwood Road, continue south along Ribbonwood Road, and then east underground along Old Highway 80, until reaching the Boulevard Substation. These changes would take place within the Tule Wind Project APE. As such, the environmental setting would be the same as that described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Additional trenching activity and soil disturbance associated with this alternative and required to underground the alternative 138 kV transmission line would slightly increase construction-related impacts to cultural and paleontological resources when compared with the proposed Tule Wind Project. Impacts associated with project decommissioning would be similar to the proposed project.

Impact CUL-1: This alternative has a habitation site located along the alternative transmission line alignment, south of I-8. This area is located adjacent to Old Highway 80 and could be avoided by adjusting the underground transmission line alignment. The remaining archaeological resources within the alternative project area are the same as those within the proposed project area and likely would be feasibly avoided. Therefore, similar to the proposed Tule Wind Project, identified impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts (including project decommissioning) would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impact CUL-2: Conducted surveys have not identified human remains within or adjacent to the project site, although site SDI-19001/19003 was identified as a complex habitation site with the potential to contain human remains. The potential exists for human remains to be found within the project site during future surveys or construction activities. Access roadways are proposed to be constructed within this area, and avoidance of this area has been suggested. It would be necessary to change the project roadway design to avoid this area. If any human remains outside of a formal cemetery are encountered, either avoidance or appropriate mitigation measures would be implemented, and impacts would be less than significant. Therefore (similar to the proposed Tule Wind Project) identified impacts would be adverse and mitigation has been

provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C, and CUL-2.

Impacts CUL-3, CUL-4, and PALEO-1: Although the potential for impacts would be slightly greater under this alternative because of undergrounding activities along the transmission line alignment, CUL-3, CUL-4, and PALEO-1 impacts under this alternative would be similar to those identified in Section D.7.3.3 for the proposed Tule Wind Project. Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3. Regarding CUL-4 impacts, Old Highway 80 would be traversed by the alternative transmission line however, operational and maintenance activities associated with the transmission line would occur within existing construction line area and would not impact the resource area. However, because the entire project area has not been surveyed, similar to the proposed Tule Wind Project, the project could impact resources if activities are not properly managed and project components are sited in conflict with these resources. Identified CUL-4 impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A. Identified PALEO-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II).

D.7.5.5 Tule Wind Alternative 5, Reduction in Turbines

Environmental Setting/Affected Environment

This alternative would result in a reduction in the number of turbines that would be located on the Tule Wind Project site. As such, the environmental setting would be the same as that described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

This alternative reduces the overall project footprint and has the potential to reduce impacts to cultural and paleontological resources by requiring less overall land disturbance as compared with the proposed project.

Impacts CUL-1 through CUL-4 and PALEO-1: Impacts, including project decommissioning, would essentially be the same as those identified for the proposed Tule Wind Project in Section D.7.3.3. However, less temporary and permanent land disturbance would reduce the overall impact to resources.

Identified CUL-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts (including project decommissioning) would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Identified CUL-2 impacts would be adverse and mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1C, and CUL-2.

Identified CUL-3 impacts would be adverse and therefore mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3. Regarding CUL-4 impacts, Old Highway 80 would be traversed by the alternative transmission line however, operational and maintenance activities associated with the transmission line would occur within existing construction line area and would not impact the resource area. However, because the entire project area has not been surveyed, similar to the proposed Tule Wind Project, the project could impact resources if activities are not properly managed and project components are sited in conflict with these resources. Identified CUL-4 impacts would be adverse and therefore mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level less than significant (Class II) by changing project design or through implementation of Mitigation Measure CUL-1A. Identified PALEO-1 impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant through implementation of Mitigation Measures PALEO-1A through PALEO-1E (Class II).

D.7.6 ESJ Gen-Tie Project Alternatives

Table D.7-12 summarizes the impacts and classification of the impacts under CEQA that have been identified for the ESJ Gen-Tie Project alternatives.

**Table D.7-12
Cultural and Paleontological Impacts Identified for ESJ Gen-Tie Project Alternatives**

Impact No.	Description	Classification
ESJ 230 kV Gen-Tie Underground Alternative		
ESJ-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ESJ-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ESJ-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ESJ-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	No Impact
ESJ-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
ESJ Gen-Tie Overhead Alternative Alignment		
ESJ-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ESJ-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ESJ-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ESJ-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	No Impact
ESJ-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II
ESJ Gen-Tie Underground Alternative Alignment		
ESJ-CUL-1	Construction of the project would cause an adverse change to known significant prehistoric and historic archaeological resources.	Class II
ESJ-CUL-2	Construction of the project would cause an adverse change to sites known to contain human remains either in formal cemeteries or buried Native American remains.	Class II
ESJ-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Class I
ESJ-CUL-4	Operation and long-term presence of the project would cause an adverse change to known significant historic architectural (built environment) resources.	No Impact
ESJ-PALEO-1	Construction of the project would destroy or disturb significant paleontological resources.	Class II

D.7.6.1 ESJ 230 kV Gen-Tie Underground Alternative

Environmental Setting/Affected Environment

Section D.7.1 describes the cultural and paleontological setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. Because this alternative would select and construct the 230 kV gen-tie underground, the cultural and paleontological setting would be the same as described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Additional trenching activity and soil disturbance associated with this alternative required to underground the alternative 230 kV transmission line would increase construction-related impacts to cultural and paleontological resources when compared with the proposed ESJ-Gen-Tie Project. Open trenching would be more invasive than excavation for transmission line poles.

Impact CUL-1: Although impacts would be slightly greater under this alternative due to undergrounding activities, impacts would be similar to those discussed in Section D.7.3.3 for the proposed ESJ Gen-Tie Project. Because the proposed ESJ Gen-Tie Project evaluated the impacts of both the 230 kV and 500 kV gen-ties, the same resources would be impacted by construction of this alternative. Similar to the proposed ESJ Gen-Tie Project, identified impacts would be adverse and mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of Mitigation Measures CUL-1A through CUL-1E.

Impacts CUL-2 and PALEO-1: Due to undergrounding being more invasive, identified impacts would be greater than discussed in Section D.7.3.3 for the proposed ESJ Gen-Tie Project. The additional land disturbance required under this alternative would potentially increase the overall impact to cultural resources. However, similar to the proposed ESJ Gen-Tie project, identified CUL-2 and PALEO-1 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, CUL-2, and PALEO-1A through PALEO-1E.

Impact CUL-3: Similar to construction of the proposed ESJ Gen-Tie Project, in some cases, avoiding direct and indirect impacts to TCPs (such as traditional landscapes, topographic elements including sacred mountains, or use areas) may not be completely feasible during construction of the 230 kV underground alternative given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be adverse and mitigation has been provided to mitigate this impact. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Impact CUL-4: Similar to the proposed ESJ Gen-Tie Project, this alternative is not anticipated to result in impacts to significant historic artifacts.

D.7.6.2 ESJ Gen-Tie Overhead Alternative Alignment

This alternative would not affect the impact conclusions resulting from the implementation of the proposed Tule Wind Project as discussed in Section D.7.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the cultural and paleontological impacts identified in Section D.7.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Section D.7.1.3 describes the cultural and paleontological setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. Because this alternative would select and construct either the 500 kV or a 230 kV gen-tie option approximately 700 feet east of the proposed location to connect with the proposed ECO Substation Site Alternative, the cultural and paleontological setting would be the same as described in Section D.7.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact CUL-1: This alternative (as well as the ECO Substation Site Alternative) would avoid the significant prehistoric archaeological site CA-SDI-19627 near the proposed ECO Substation site, and site CA-SDI-7079 that is considered to not be eligible for NRHP listing as a “historic property” or for CRHR listing as a “historic resource.” CA-SDI-19488 would still be impacted by construction of the Gen-Tie Tower Access Road, CA-SDI-19493 would be impacted by a tower and access road, and CA-SDI-19494 would be indirectly impacted by project construction and maintenance activities. As significance testing has determined these sites are not eligible for listing on the NRHP as a “historic property” or on the CRHR as a “historic resource,” no additional impact on cultural resources would result. CA-SDI-19486 and -19492 would potentially be impacted by relocated Tower locations. The eligibility of these sites for listing on the NRHP and the CRHR has not occurred, such that they are considered potentially significant cultural resources. Under this alternative and similar to the proposed ESJ Gen-Tie Project, CA-SDI-6119 would continue to be impacted by construction and maintenance of the Legal Property Access Road. Archaeological testing investigations determined that subsequent data recovery mitigation excavations at CA-SDI-6119 would not be capable of retrieving additional, non-redundant data capable of yielding important information about prehistory. Therefore, no additional impacts to cultural resources would result. Similar to the proposed ESJ Gen-Tie Project, identified impacts under this alternative would be adverse and mitigation has been provided to mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) with implementation of CUL-1A through CUL-1E.

Impacts CUL-2 and PALEO-1: As identified in Section D.7.3.3 for the proposed ESJ Gen-Tie Project, no historic cemeteries or archaeological sites potentially containing human remains have been identified within 1 mile of the project APE. Because this alternative would likely be located within 1 mile of the proposed project APE, CUL-2 impacts would be similar. Similar to the proposed ESJ Gen-Tie project, identified CUL-2 impacts would be adverse and therefore mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) through implementation of Mitigation Measures CUL-1A, CUL-1B, CUL-1C, and CUL-2.

Because this alternative would be underlain by similar geologic formations as the proposed ESJ Gen-Tie Project, PALEO-1 impacts are anticipated to be similar. Identified impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II) through implementation of Mitigation Measures PALEO-1A through PALEO-1E.

Impact CUL-3: In some cases, avoiding direct and indirect impacts to TCPs (such as traditional landscapes, topographic elements including sacred mountains, or use areas) may not be completely feasible during construction of the 230 kV underground alternative given the geographic expanse of some of these resources. In this event, the residual impact on TCPs would be adverse and mitigation has been provided to mitigate this impact. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I) even with implementation of Mitigation Measures CUL-1A through CUL-1E, CUL-2, and CUL-3.

Impact CUL-4: Similar to the proposed ESJ Gen-Tie Project, this alternative is not anticipated to result in impacts to significant historic artifacts.

D.7.6.3 ESJ Gen-Tie Underground Alternative Alignment

This alternative would not affect the impact conclusions resulting from the implementation of the proposed Tule Wind Project as discussed in Section D.7.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the cultural and paleontological impacts identified in Section D.7.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Section D.7.1 describes the cultural and paleontological setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. This alternative would select and construct the 500 kV or a 230 kV gen-tie underground approximately 700 feet east of the proposed location described previously in Section D.7.1 to connect with the proposed

ECO Substation Site Alternative. The cultural and paleontological setting would be similar as described in Section D.7.1 for the proposed ESJ Gen-Tie Project.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Additional trenching activity and soil disturbance associated with this alternative required to underground the alternative 500 kV or 230 kV transmission line would increase construction-related impacts to cultural and paleontological resources when compared with the proposed ESJ-Gen-Tie Project. Open trenching would be more invasive than excavation for transmission line poles.

Impacts CUL-1 through CUL-4 and PALEO-1: Although undergrounding the gen-tie line would likely result in slightly greater impacts, impacts would essentially be the same as those identified in Section D.7.6.2 for the ESJ Gen-Tie Overhead Alternative Alignment.

D.7.7 No Project/No Action Alternatives

D.7.7.1 No Project Alternative 1 – No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan Wind Energy Projects

Environmental Impacts/Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Project Alternative 1, the ECO Substation, Tule Wind, and ESJ Gen-Tie, as well as the Campo, Manzanita, and Jordan wind energy projects, would not be built and the existing conditions would remain at these sites.

Cultural resource and paleontological impacts resulting from the Proposed PROJECT would not occur.

D.7.7.2 No Project Alternative 2–No ECO Substation Project

Environmental Impacts/Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Project Alternative 2, the ECO Substation project would not be built, and the conditions in the existing energy grid and local environment would remain. Although there would be no impacts to cultural or paleontological resources by the ECO Substation Project, the Tule Wind and ESJ Gen-Tie Projects would, however, be constructed and would be forced to interconnect with an existing substation or a new substation. Impacts from expanded substations could be greater due to multiple impact locations and longer gen-tie lines, which could result in greater impacts to cultural and paleontological resources. The location of the ECO Substation Project was selected, in part, to

facilitate the interconnection hub concept; it is located near already-planned wind generation projects (CAISO Generation Queue) and close to a region with favorable wind potential, as determined by the Department of Energy Wind Program and the National Renewable Energy Laboratory. Impacts associated the Tule Wind and ESJ Gen-Tie projects would be expected to be similar to those described in Section D.7.3.3 but could vary depending on the point of interconnection and the resulting gen-tie route and length of the projects.

D.7.7.3 No Project Alternative 3–No Tule Wind Project

Environmental Impacts/Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Project Alternative 3, the Tule Wind Project would not be built, and the existing conditions on the project site would remain. Although there would be no impacts to cultural or paleontological resources by the Tule Wind Project, the BLM’s determination that the area is conducive to wind and renewable energy development would still be valid, thus leaving the area available for another project. The BLM, state, Ewiiapaayp Band of Kumeyaay Indians, and County would continue to search for renewable energy projects to contribute to their renewable energy mandates and portfolios, resulting in potentially other future projects with the potential for ground disturbances. In the short-term, however, under this alternative, cultural and paleontological resources impacts on the Tule Wind Project site would not occur.

D.7.7.4 No Project Alternative 4–No ESJ Gen-Tie Project

Environmental Impacts/Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Project Alternative 4, the ESJ Gen-Tie Project would not be built, and the existing conditions on the project site would remain. Although there would be no impacts to cultural or paleontological resources by the ESJ Gen-Tie Project, Sempra could be forced to add new gen-tie facilities elsewhere to deliver renewable energy to the U.S. market. The ESJ Wind Phase I Project in Mexico would still be built under No Project Alternative 4 conditions, and the impacts associated with an alternative gen-tie would be expected to be similar to those described in Section D.7.3.3 but could vary, depending on length of gen-tie line and the location pursued.

D.7.8 Mitigation Monitoring, Compliance, and Reporting

Table D.7-13 presents the mitigation monitoring, compliance, and reporting program for cultural and paleontological resources for the ECO Substation, Tule Wind, and ESJ Gen-Tie projects. Section D.7.9 provides residual effects.

The proposed Campo, Manzanita, and Jordan wind energy projects would require preparation of a mitigation monitoring, compliance, and reporting program following project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information has been developed.

Table D.7-13

Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Cultural and Paleontological Resources

ECO Substation Project	
Mitigation Measure	<p>CUL-1A, Develop and Implement a Historic Properties-Cultural Resources Treatment Program: A Historic Properties–Cultural Resources Treatment Program (HPTP-CRTP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA/PA shall be developed among all federal, state, and local agencies to implement the HPTP-CRTP. The HPTP-CRTP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. The HPTP-CRTP shall detail provisions completing testing required to completed eligibility determinations. If NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRTP shall provide for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRTP shall indicate the locations where Native American monitors shall be required and shall specify the tribal affiliation of the required Native American monitor for each location.</p> <p>CUL-1B, Avoid Significant Resources: Known cultural resources that can be avoided shall be demarcated as Environmentally Sensitive Areas (ESAs). All potentially NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 50 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs.</p> <p>CUL-1C, Training for Contractor: Prior to construction, all applicant, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to effectively implement the mitigation measures and to comply with the applicable environmental laws and regulations (including penalties for violation under the appropriate state and federal laws), avoiding ESAs, the potential for exposing subsurface cultural resources and paleontological resources, and to recognize possible buried resources. This training shall include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.</p> <p>CUL-1D, Construction Monitoring: Prior to issuance of grading permit(s), the project applicant shall retain a qualified archaeologist, in accordance with the Secretary of the Interior’s Standards and Guidelines (Secretary’s Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend</p>

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES

Table D.7-13 (Continued)

	<p>preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. A qualified paleontologist shall be retained to monitor earth disturbances in all areas of paleontological sensitivity, per approval by lead agency.</p> <p>All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.</p> <p>CUL-1E, Discovery of Unknown Resources: In the event that cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the lead agencies, in consultation with other appropriate agencies and local governments, and the SHPO.</p> <p>As part of the HPTP-CRTP, all collected cultural remains shall be cleaned, cataloged, and permanently curated with an appropriate institution along with all required reports and documentation. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.</p>
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan. All historic properties in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	<p>CUL-2, Human Remains: If human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.</p>
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	All human remains in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES

Table D.7-13 (Continued)

Responsible Agency	CPUC/BLM
Timing	For the duration of project
Mitigation Measure	<p>CUL-3, Complete Consultation with Native American and other Traditional Groups: As required by NHPA Section 106, the applicant shall provide assistance to the lead agency, as requested, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the NHPA) and other traditional groups to assess the impact of the approved project on TCPs or other resources of Native American concerns. As directed by the lead agency, the applicant shall undertake required treatments, studies, or other actions that result from such consultation.</p> <p>Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties–Cultural Resources Treatment Plan in consultation with the applicant and may include the following:</p> <ul style="list-style-type: none"> • Information regarding further developments in the projects; • Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities; • Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists; • The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and • Copies of all site records, survey reports, or other environmental documents.
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Prior to project approval Quarterly updates to agencies
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	<p>PALEO-1A, Inventory and evaluate paleontological resources in the Final APE: Prior to construction, the applicant shall conduct and submit to the lead agency and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.</p> <p>PALEO-1B, Develop Paleontological Monitoring and Treatment Plan: Following completion and approval of the paleontological resources inventory and prior to construction, the applicant shall prepare and submit to the lead agency and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist).</p>

Table D.7-13 (Continued)

	<p>Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.</p> <p>PALEO-1C, Monitor Construction for Paleontology: Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), the applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.</p> <p>PALEO-1D Conduct Paleontological Data Recovery: If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).</p> <p>PALEO-1E, Train Construction Personnel: Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> • All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. • The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event
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Table D.7-13 (Continued)

	<p>of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.</p> <ul style="list-style-type: none"> • Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).
Location	Areas identified in PALEO-1A, PALEO-1B
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Tule Wind Project	
Mitigation Measure	<p>CUL-1A, Develop and Implement a Historic Properties-Cultural Resources Treatment Program: A Historic Properties–Cultural Resources Treatment Program (HPTP-CRTP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA/PA shall be developed among all federal, state, and local agencies to implement the HPTP-CRTP. The HPTP-CRTP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. The HPTP-CRTP shall detail provisions completing testing required to completed eligibility determinations. If NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRTP shall provide for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRTP shall indicate the locations where Native American monitors shall be required and shall specify the tribal affiliation of the required Native American monitor for each location.</p> <p>CUL-1B, Avoid Significant Resources: Known cultural resources that can be avoided shall be demarcated as Environmentally Sensitive Areas (ESAs). All potentially NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 50 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs.</p> <p>CUL-1C, Training for Contractor: Prior to construction, all applicant, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to effectively implement the mitigation measures and to comply with the applicable environmental laws and regulations (including penalties for violation under the appropriate state and federal laws), avoiding ESAs, the potential for exposing subsurface cultural resources and paleontological resources, and to recognize possible buried</p>

Table D.7-13 (Continued)

	<p>resources. This training shall include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.</p> <p>CUL-1D, Construction Monitoring: Prior to issuance of grading permit(s), the project applicant shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. A qualified paleontologist shall be retained to monitor earth disturbances in all areas of paleontological sensitivity, per approval by lead agency.</p> <p>All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.</p> <p>CUL-1E, Discovery of Unknown Resources: In the event that cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the lead agencies, in consultation with other appropriate agencies and local governments, and the SHPO.</p> <p>As part of the HPTP-CRTP, all collected cultural remains shall be cleaned, cataloged, and permanently curated with an appropriate institution along with all required reports and documentation. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.</p>
Location	Along entire proposed project
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan. All historic properties in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiapaayp Band of Kumeyaay Indians
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	CUL-2, Human Remains: If human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County

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	Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.
Location	Along entire proposed project
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will review and ensure implementation.
Effectiveness Criteria	All human remains in the project impact area are identified and protected from disturbance. Quarterly updates to agencies
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiapaayp Band of Kumeyaay Indians
Timing	For the duration of project
Mitigation Measure	<p>CUL-3, Complete Consultation with Native American and other Traditional Groups: As required by NHPA Section 106, the applicant shall provide assistance to the lead agency, as requested, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the NHPA) and other traditional groups to assess the impact of the approved project on TCPs or other resources of Native American concerns. As directed by the lead agency, the applicant shall undertake required treatments, studies, or other actions that result from such consultation.</p> <p>Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties–Cultural Resources Treatment Plan in consultation with the applicant and may include the following:</p> <ul style="list-style-type: none"> • Information regarding further developments in the projects; • Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities; • Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists; • The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and • Copies of all site records, survey reports, or other environmental documents.
Location	Along entire proposed project
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will review and ensure implementation.
Effectiveness Criteria	Prior to project approval Quarterly updates to agencies
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiapaayp Band of Kumeyaay Indians
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	<p>PALEO-1A, Inventory and evaluate paleontological resources in the Final APE: Prior to construction, the applicant shall conduct and submit to the lead agency and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.</p> <p>PALEO-1B, Develop Paleontological Monitoring and Treatment Plan: Following</p>

Table D.7-13 (Continued)

	<p>completion and approval of the paleontological resources inventory and prior to construction, the applicant shall prepare and submit to the lead agency and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.</p> <p>PALEO-1C, Monitor Construction for Paleontology: Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), the applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.</p> <p>PALEO-1D Conduct Paleontological Data Recovery: If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).</p> <p>PALEO-1E, Train Construction Personnel: Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or</p>
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Table D.7-13 (Continued)

	<p>disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> • All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. • The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils. <p>Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).</p>
Location	Areas identified in PALEO-1A, PALEO-1B
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiapaayp Band of Kumeyaay Indians
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
ESJ Gen-Tie Project	
Mitigation Measure	<p>CUL-1A, Develop and Implement a Historic Properties-Cultural Resources Treatment Program: A Historic Properties–Cultural Resources Treatment Program (HPTP-CRTP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA/PA shall be developed among all federal, state, and local agencies to implement the HPTP-CRTP. The HPTP-CRTP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. The HPTP-CRTP shall detail provisions completing testing required to completed eligibility determinations. If NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRTP shall provide for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRTP shall indicate the locations where Native American monitors</p>

Table D.7-13 (Continued)

	<p>shall be required and shall specify the tribal affiliation of the required Native American monitor for each location.</p> <p>CUL-1B, Avoid Significant Resources: Known cultural resources that can be avoided shall be demarcated as Environmentally Sensitive Areas (ESAs). All potentially NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 50 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs.</p> <p>CUL-1C, Training for Contractor: Prior to construction, all applicant, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to effectively implement the mitigation measures and to comply with the applicable environmental laws and regulations (including penalties for violation under the appropriate state and federal laws), avoiding ESAs, the potential for exposing subsurface cultural resources and paleontological resources, and to recognize possible buried resources. This training shall include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.</p> <p>CUL-1D, Construction Monitoring: Prior to issuance of grading permit(s), the project applicant shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. A qualified paleontologist shall be retained to monitor earth disturbances in all areas of paleontological sensitivity, per approval by lead agency.</p> <p>All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.</p> <p>CUL-1E, Discovery of Unknown Resources: In the event that cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the lead agencies, in consultation with other appropriate agencies and local governments, and the SHPO.</p> <p>As part of the HPTP-CRTP, all collected cultural remains shall be cleaned, cataloged, and permanently curated with an appropriate institution along with all required reports and documentation. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.</p>
Location	Along entire proposed project

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D.7 CULTURAL AND PALEONTOLOGICAL RESOURCES

Table D.7-13 (Continued)

Monitoring/Reporting Action	County of San Diego will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan. All historic properties in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	County of San Diego
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	CUL-2, Human Remains: If human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.
Location	Along entire proposed project
Monitoring/Reporting Action	County of San Diego will review and ensure implementation.
Effectiveness Criteria	All human remains in the project impact area are identified and protected from disturbance. Quarterly updates to agencies
Responsible Agency	County of San Diego
Timing	For the duration of Project
Mitigation Measure	CUL-3, Complete Consultation with Native American and other Traditional Groups: As required by NHPA Section 106, the applicant shall provide assistance to the lead agency, as requested, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the NHPA) and other traditional groups to assess the impact of the approved project on TCPs or other resources of Native American concerns. As directed by the lead agency, the applicant shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties–Cultural Resources Treatment Plan in consultation with the applicant and may include the following: <ul style="list-style-type: none"> • Information regarding further developments in the projects; • Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities; • Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists; • The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and • Copies of all site records, survey reports, or other environmental documents.
Location	Along entire proposed project
Monitoring/Reporting Action	County of San Diego will review and ensure implementation.
Effectiveness Criteria	Prior to Project Approval Quarterly updates to agencies
Responsible Agency	County of San Diego

Table D.7-13 (Continued)

Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Mitigation Measure	<p>PALEO-1A, Inventory and evaluate paleontological resources in the Final APE: Prior to construction, the applicant shall conduct and submit to the lead agency and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.</p> <p>PALEO-1B, Develop Paleontological Monitoring and Treatment Plan: Following completion and approval of the paleontological resources inventory and prior to construction, the applicant shall prepare and submit to the lead agency and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.</p> <p>PALEO-1C, Monitor Construction for Paleontology: Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), the applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.</p> <p>PALEO-1D Conduct Paleontological Data Recovery: If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).</p> <p>PALEO-1E, Train Construction Personnel: Prior to the initiation of construction or ground-</p>

Table D.7-13 (Continued)

	<p>disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> • All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. • The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils. <p>Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).</p>
Location	Areas identified in PALEO-1A, PALEO-1B
Monitoring/Reporting Action	County of San Diego will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies
Responsible Agency	County of San Diego
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction

D.7.9 Residual Effects

Implementation of the mitigation measures presented in Section D.7.8 will mitigate all impacts and under CEQA, all impacts would be mitigated to less than significant, with the following exception. If Native American tribal consultation on the ECO Substation, Tule Wind, and ESJ Gen-Tie projects identifies TCPs that cannot be feasibly avoided through redesign, there would be adverse impacts under NEPA, and significant, unavoidable impacts (Class I) under CEQA on

these cultural resources. These impacts are identified below in Table D.7-14. Except for this impact, no adverse residual impacts would occur for the Proposed PROJECT or alternatives under NEPA, and all impacts would be reduced to less than significant under CEQA.

Table D.7-14
Significant and Unmitigable Impacts

ECO Substation – Class I Impacts		
<i>Impact No.</i>	<i>Description</i>	<i>Status after Mitigation</i>
ECO-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Impacts to Traditional Cultural Properties would remain significant and unmitigable if these features cannot be feasibly avoided through redesign.
Tule Wind – Class I Impacts		
TULE-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Impacts to Traditional Cultural Properties would remain significant and unmitigable if these features cannot be feasibly avoided through redesign.
ESJ Gen-Tie – Class I Impacts		
ESJ-CUL-3	Construction of the project would cause an adverse change to Traditional Cultural Properties.	Impacts to Traditional Cultural Properties would remain significant and unmitigable if these features cannot be feasibly avoided through redesign.

D.7.10 References

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.
- 16 U.S.C. 431–433. American Antiquities Act of 1906, as amended.
- 16 U.S.C. 469–469c. Archaeological and Historic Preservation Act of 1974, as amended.
- 16 U.S.C. 470–470kk. National Historic Preservation Act of 1966 (NHPA), as amended. \
- 16 U.S.C. 470aa–470mm. Archaeological Resources Protection Act of 1979, as amended.
- 25 U.S.C. 3001–3013. Native American Graves Protection and Repatriation Act (NAGPRA), as amended.
- 43 U.S.C. 1701–1782. Federal Land and Management Act of 1976, as amended.
- 42 U.S.C. 4321–4370f. National Environmental Policy Act (NEPA) of 1969, as amended.
- ASM Affiliates, Inc. 2010a. Cultural Resources Report for the Tule Wind Project 70 Percent Survey. Prepared March 2010.

ASM Affiliates, Inc. 2010b. East County Substation Access Road Cultural Resource Survey Results. Prepared for November 22.

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California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

California Public Resources Code, Section 30240–30244. Land Resources.

California Public Resources Code, Section 5020–5029.5. Historical Resources.

California Public Resources Code, Section 5097–5097.6. Archaeological, Paleontological, and Historical Sites.

California Public Resources Code, Section 5097.9–5097.993. Native American Historical, Cultural, and Sacred Sites.

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- DOE (U.S. Department of Energy). 2010. *Draft Environmental Impact Statement for the Energia Sierra Juarez U.S. Transmission Line*. Office of Electricity Delivery and Energy Reliability. May 2010.
- DWR (Department of Water Resources). 2004. *Hydrologic Region Colorado River California's Groundwater, Jacumba Valley Groundwater Basin Bulletin 118*. February 27, 2004. Accessed June 8, 2009. Accessed at: http://www.dpla2.water.ca.gov/publications/groundwater/bulletin118/basins/pdfs_desc/7-47.pdf.
- EDAW, Inc. 2010. "Draft Archaeological and Historical Investigations for the Energia Sierra Juarez U.S. Gen-Tie Project, Jacumba, CA." Prepared for the ESJ Gen-Tie Project. July 2010.
- Engineering-Environmental Management, Inc. 2010. *Final Report. Prehistoric Artifact Scatters, Bedrock Milling Stations and Tin Can Dumps: Results of a Cultural Resources Study for the SDG&E East County Substation Project San Diego County, CA*. August 2010.
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