

D.6 Cultural and Paleontological Resources

This section evaluates the potential for the South Bay Substation Relocation Project (Proposed Project) and alternatives to impact both previously identified and unanticipated cultural resources in the project area during construction and operation. Section D.6.1 provides a description of the environmental setting, and Section D.6.2 provides applicable regulations. Potential impacts and mitigation measures for the Proposed Project are outlined in Section D.6.3, and the cultural resource impacts related to project alternatives are discussed in Section D.6.4. The mitigation recommendations and the monitoring, compliance, and reporting program for cultural resources are presented in Section D.6.5.

D.6.1 Environmental Setting for the Proposed Project

Information presented in this section was gathered from a review of San Diego Gas & Electric's (SDG&E's) Preliminary Environmental Assessment (PEA) (SDG&E 2010a), a cultural resources inventory technical report (SDG&E 2010b), Native American consultations and a Paleontological Resources Assessment (SDG&E 2010c).

Overview

Prehistoric

Southern San Diego County contains archaeological evidence of human use and occupation that spans the known periods of prehistory. The earliest sites are from the Paleo-Indian period and are known as the San Dieguito complex (approximately 9,000 years ago), so-named because the culture was first defined at a site along San Dieguito River, about 20 miles north of the current project area. The archaeological remains of this period consist of well-defined fluted complexes, which were used for hunting and processing large game animals and seed grinding (SDG&E 2010a).

The Archaic Period (8,000 to 1,500 years ago) followed the Paleo-Indian period. Archaic sites are recognized by mortars, metates, manos, and pestles associated with seed grinding. In addition, Archaic artifacts include projectile (atlatl) points, large bifaces, and core tools. These artifacts are typically located in coastal areas where marine vertebrates and invertebrate remains are found. Archaic sites are typically homogenous and indicate a subsistence economy focused on hunting and gathering (SDG&E 2010a).

During late prehistory in southwestern California, the Late Prehistoric Period (1,500 to 500 years ago) was a time of technological development. Groups migrating west from eastern desert areas to Southern California introduced technological advances including ceramics, bows and arrows,

projectile points, and cremation remains. The peoples of this period were known as the Kumeyaay and Luiseno (SDG&E 2010a).

Historic

The mid-sixteenth century saw the first European contact with indigenous groups throughout Southern California. Spanish missionaries and military personnel began to arrive in what was then called Alta California during the late eighteenth century. Missions established by these settlers included the San Diego Presidio, San Diego de Alcalá, and the San Luis Rey missions. Around 1769, native tribes in the region dwindled as Spain's influence throughout the region spread due to military and religious presence. California was officially annexed by Mexico in 1821, which ended the Spanish expansion period in the region as Spanish settlers were forced from the region by the Mexican military and missions were secularized (SDG&E 2010a).

During the Mexican period large tracts of land were granted to Mexican individuals and rancho systems were established. Throughout this time period, cattle ranching superseded agricultural enterprises, restricting native tribal groups' access to traditional hunting and gathering areas. The Mexican period was officially ended at the conclusion of the Mexican-American War in 1848. European and American immigrants began to arrive in the region in 1849 as a result of the Gold Rush. After California became part of the Union in 1850, ranching, farming, and dairy activities became the economic driving force in California (SDG&E 2010a).

Ethnographic

The project area is located in the southwestern portion of San Diego County within the historical territory of the Kumeyaay people. Kumeyaay is a native term referring to all Yuman-speaking peoples living in the area from San Dieguito River south to the Sierra Juárez in Baja California and roughly west of the present-day Salton Sea. On the basis of linguistic and archaeological evidence, it has been suggested that the ancestors of the present-day Kumeyaay arrived in this part of California sometime between 1000 BC and AD 1000. Adding new cultural traditions to the earlier patterns, the ancestral Kumeyaay seem to have assimilated with the earlier inhabitants rather than displaced them.

The Kumeyaay were organized socio-politically into autonomous bands, each controlling from 10 to 30 miles of a drainage. Each band usually occupied a main village and several satellite habitations. Their economic system consisted of hunting and gathering, with a focus on small game, acorns, grass seeds, and other plant resources. The most basic social and economic unit was the patrilocal extended family. The San Diego area Kumeyaay appear to have maintained stronger trade relationships with their neighbors to the east with groups to the north and south, as evidenced by a lively trade between the seacoast and inland areas as far east as the Colorado

River. Acorns, dried seafood, ornamental marine shell, and other materials moved eastward from the coast and uplands, and salt, gourd seeds, and mesquite beans moved in the opposite direction.

Contact between the Kumeyaay and Europeans began in 1542 when Juan Rodriguez Cabrillo landed the first Spanish expedition in San Diego. Sustained cultural interaction did not develop, however, until the founding of Mission San Diego Alcalá in 1769. Although the Kumeyaay culture was not as severely impacted by Spanish colonization as some other California tribes, its socio-political structure was drastically disrupted during the Mission period and later.

Those Kumeyaay living closest to the mission were hardest hit by European civilization, whereas groups living in the mountains were less traumatized by cultural interaction and preserved more of their culture longer. By the end of the nineteenth century, most Kumeyaay had been disenfranchised from their lands and relegated either to reservations or, for those who remained living in mainstream Euro American society, to rural areas or the edges of small towns on land that whites did not want. Employment opportunities were few. Most were poorly paid and labored in mines, on ranches, or in town, although some still supplemented their income with traditional subsistence activities.

Methodology

Cultural Resources

To identify the cultural resources present within the study area, records searches were conducted at the South Coastal Information Center (SCIC) of the California Historic Resources Information System, San Diego State University (SDSU), and at the San Diego Museum of Man. The records search study area encompassed a 1-mile radius around the Proposed Project area. The records searches consisted of reviews of archaeological site records and other cultural technical reports prepared for projects that overlap portions of the Proposed Project (SDG&E 2010a). Information gathered from archival research, including historic maps, was also used to assess the potential for encountering previously unrecorded resources in the project area (SDG&E 2010a). Archaeological and architectural history field surveys were then conducted of the project area by RECON Environmental Inc. in April 2007 (SDG&E 2010b) to identify whether there was any evidence of surface features within the study area. Native American consultation letters were also sent to the Native American Heritage Commission (NAHC), as well as to various Native American representatives, requesting information about any sacred lands or sites within the Proposed Project study area (SDG&E 2010d). No additional information about sacred sites was gathered as a result of this consultation.

Paleontological Resources

To evaluate the likelihood for paleontological resources to be present within the study area a review of geotechnical reports, paleontological reports, and museum paleontological site records was completed to determine the relationship between paleontological resources and the geologic formations within which they occur (SDG&E 2010c).

Results

Records Searches

The records search study area encompassed a 1-mile radius around the proposed project area. Site record and archival searches were completed at SCIC of the California Historic Resources Information System, SDSU, and at the San Diego Museum of Man. Extant historic maps, historic registers, landmark lists, and other documents were consulted (SDGE 2010a).

The cultural resource records search was completed to identify whether recorded archaeological resources were known to be present within the project limits. Two previously recorded sites were identified within the limits of the Proposed Project area as follows:

CA-SDI-4886: Site CA-SDI-4886 consists of an isolated artifact that had been previously mapped within the Proposed Project limits. The site was recorded in 1977 and consists of a flaked lithic tool (scraper) (SDG&E 2010a and b). The location of the isolated artifact was highly disturbed by miscellaneous public dumping, as well as grading and vehicle traffic assumed to have been associated with the former liquefied natural gas (LNG) facility (SDGE 2010a and b). CA-SDI-4866 was not relocated, and a parking lot now exists in the mapped location of this resource (SDGE 2010a).

CA-SDI-13073H: Site CA-SDI-13073H consists of the Coronado Belt Line Railroad, which ran along the eastern edge of the Bay Boulevard Substation site and directly adjacent to western limits of Bay Boulevard (SDGE 2010a). The Coronado Belt Line Railroad was constructed in 1888, as part of the currently unused San Diego and Arizona Eastern Railway, to service Coronado and the communities along San Diego Bay (SDGE 2010a). In February 2002, the Coronado Belt Line Railroad was listed on the California Register of Historic Resources by the State Historical Resources Commission (SHRC); however, the State Historic Preservation Office (SHPO) requested a redetermination of the listing (SDGE 2010a). In November 2002, on the basis of new information, the SHRC determined that the resource was ineligible for listing; therefore, it is not currently on the California Register (SDGE 2010a). On August 3, 2005, 1.5 miles of the Coronado Belt Line Railroad within the City of San Diego was designated City of San Diego Historical Landmark No. 640. The segment of the rail line that runs through the

Proposed Project boundaries is within the City of Chula Vista and is not listed as a historic landmark (SDGE 2010a).

Field Survey

No new cultural resources were identified during the survey of the Proposed Project area. CASDI-13037H (SDMM-W-7678) was identified immediately adjacent to the property boundary and relocated. CA-SDI-13037H (SDMM-W-7678) appeared to be in the same condition as it was when recorded in 1993. CA-SDI-4866 (SDMM-W-5363) was not relocated, and a parking lot now exists in the mapped location of this resource. The entire survey area has been disturbed and/or developed.

Native American Consultation

A letter was sent to the NAHC requesting that any sacred sites in or within 1 mile of the project area be identified. Also, a list of Native American groups or individuals who may have concerns about cultural resources within the project area was requested (SDGE 2010d).

Paleontological

The following information provides an overview of paleontological resources on the basis of geologic formations that are present within—or have the potential to be encountered within—the proposed project area.

Sedimentary deposits underlying the South Bay Substation and the proposed Bay Boulevard Substation sites consist of an undifferentiated mixture of Quaternary-age (probably Holocene) alluvium and slope wash (Kennedy and Tan 1977). The Quaternary alluvium consists primarily of silts, sands, and gravels transported and deposited by the Sweetwater River. These deposits are assumed to be entirely Holocene in age (approximately 0 to 10,000 years old) and are generally considered too young to yield scientifically significant paleontological resources. Due to the relatively young age of Quaternary alluvial deposits, these sediments are assigned a low resource sensitivity rating (SDGE 2010c).

Project components are being proposed in an area that traverses the Quaternary alluvium formation. The Bay Point Formation represents a sequence of marine and/or non-marine sedimentary deposits of late Pleistocene age (approximately 0.1 to 0.5 million years old). The Bay Point Formation varies in thickness from less than 10 feet to over 100 feet, and is thought to have been deposited under fluvial, aeolian, and/or shallow nearshore marine conditions (Kennedy 1975). Fossil localities are locally common in the Bay Point Formation and have been recorded from a number of coastal sites from Carlsbad to Chula Vista (Kennedy and Tan 1977).

Mapped sedimentary deposits of the Pleistocene-age Bay Point Formation, on the east side of Bay Boulevard, are less than 600 feet from the proposed site of the Bay Boulevard Substation. The presence of mapped outcrops of the Bay Point Formation in close proximity to the Proposed Project area suggests that excavations on the project site may penetrate through the Holocene-age alluvium and into buried Pleistocene-age strata of the Bay Point Formation.

Boring samples taken as part of the Geotechnical Investigation for the Proposed Project found that the Bay Point Formation was encountered at depths as shallow as 4 feet and as deep as 14 feet below the present ground surface. However, in the immediate vicinity of the Bay Boulevard Substation site, the Bay Point Formation appears to occur consistently between 7 and 8.5 feet below the present ground surface. The Bay Point Formation has been assigned a high paleontological resource sensitivity (Deméré and Walsh 1993).

Recorded Sites: There are no museum fossil-collecting localities recorded within the Proposed Project area, or within a 1-mile radius of the site (SDGE 2010c). The nearest recorded localities occur approximately 3.3 miles east and northeast of the project site (SDGE 2010c). These localities occur within Pleistocene-age alluvial/fluvial deposits mapped as the Bay Point Formation by Kennedy and Tan (1977) (SDGE 2010c).

D.6.2 Applicable Regulations, Plans, and Standards

Federal

National Historic Preservation Act

The regulations implementing Section 106 (36 CFR Part 800 or agency counterpart regulations) of the National Historic Preservation Act (NHPA) of 1966 (as amended) require federal agencies to identify all cultural properties on land under its control or jurisdiction that meet the criteria for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on those actions that may affect them.

The NHPA established the federal government's policy on historic preservation and the programs, including the NRHP, through which that policy is implemented. Under the NHPA, historic properties include "... any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places" (16 U.S.C. 470w (5)). Section 106 of the NHPA (16 U.S.C. 470f) requires federal agencies, prior to implementing an "undertaking" (e.g., issuing a federal permit), to consider the effects of the undertaking on historic properties and to afford the ACHP and the SHPO a reasonable

opportunity to comment on any undertaking that would adversely affect properties eligible for listing on the NRHP.

Since a permit may be obtained from the ACOE, the NHPA of 1966 (as amended) and its implementing regulations (16 U.S.C. 470 et seq., 36 CFR Part 800, 36 CFR Part 60, and 36 CFR Part 63) may apply to the project, requiring the U.S. Army Corps of Engineers (ACOE) to consider whether the project would affect historic properties listed on or meeting the criteria for listing in the NRHP. The ACOE would be the lead agency for NHPA Section 106 compliance, and consultation with the SHPO and ACHP would be conducted.

State

The California Environmental Quality Act (CEQA) recognizes that historical resources are part of the environment and a project that “may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment” (PRC 21084.1). Because historic properties designated under any municipal or county ordinance and determined significant by the State Historical Resources Commission may be eligible for the California Register of Historical Resources (CRHR) (PRC 5024.1(e)(5)), portions of the Proposed Project may be subject to the Historical Resources Guidelines of the City of Chula Vista Municipal Code regarding cultural resources.

CEQA also requires that the lead agency determine whether the project will have a significant effect on unique archaeological resources that are not eligible for listing in the CRHR, and to avoid unique archaeological resources when feasible or mitigate any effects to less-than-significant levels (PRC 21083.2).

The following California Public Resource Code sections and CEQA regulations (14 CCR 15000 et seq.) apply:

- **CEQA:** California Public Resources Code, Sections 21083.2, 21084.1, et seq., require analysis of potential environmental impacts of proposed projects and application of feasible mitigation measures.
- **Title 14, California Public Resources Code, Section 5020.1**, defines several terms, including the following: (f) “DPR Form 523” means the Department of Parks and Recreation Historic Resources Inventory Form; (i) “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California; (j) “local register of historical resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a

local ordinance or resolution; (l) “National Register of Historic Places” means the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture as authorized by the NHPA of 1966 (16 U.S.C. 470 et seq.); and (q) “substantial adverse change” means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.

- **Title 14, California Public Resources Code, Section 5024.1**, establishes a California Register of Historical Resources, sets forth criteria to determine significance, defines eligible properties, and lists nomination procedures.
- **Title 14, California Public Resources Code, Section 21083.2**, defines “unique and non-unique archaeological resources” and states that the lead agency determines whether a project may have a significant effect on unique archaeological resources. If a potential for damage to unique archaeological resources can be demonstrated, such resources must be avoided. If avoidance is not feasible, mitigation measures shall be required. This section deals with a number of related cultural resource issues, including excavation as mitigation, mitigation costs, time frames for excavation, and mitigation of unexpected resources.
- **Title 14, California Public Resources Code, Section 21084.1**, defines “historical resource” and states that a project may have a significant effect on the environment if it causes a substantial change in the significance of a historical resource.
- **Title 14, California Public Resources Code, Section 5097.5**, states that any unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, “public lands” means land owned by, or under the jurisdiction of the state, or any city, county, district, authority, or public corporation, or any agency thereof.
- **Title 14, California Public Resources Code, Section 5097.98**, prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn and sets penalties.
- **Guidelines for the Implementation of CEQA, Section 15064.5**, define “historical resource” and address effects on historic and prehistoric archaeological resources.
- **Guidelines for the Implementation of CEQA, Section 15126.4**, discuss mitigation measures to minimize significant effects to cultural resources. Mitigation measures related to impacts on historical resources include data recovery through excavation when it is the only feasible mitigation available.
- **Title 14, Penal Code, Section 622.5**, asserts that anyone who damages an item of archaeological or historic interest is guilty of a misdemeanor.

- **CEQA Guidelines: California Code of Regulations, Sections 15000 et seq., Appendix G (j)**, define a potentially significant environmental effect as occurring when the proposed project would “disrupt or adversely affect . . . an archaeological site, except as part of a scientific study.”

Local

The Proposed Project is located within the City of Chula Vista and is subject to policies in the City of Chula Vista’s General Plan (2005) and Municipal Code (2010) that describe preservation of cultural resources. Relevant provisions include the following:

- **Municipal Code Title 2 Chapter 2.32 Section 2.32.030** protects finite cultural resources which provide the only record of our historic, prehistoric and natural past.
- **General Plan Land Use Element Policy 12.7** Continue to assess and mitigate the potential impacts of private development and public facilities and infrastructure to historic resources in accordance with the California Environmental Quality Act.
- **General Plan Land Use Element Policy 12.10** Promote the maintenance; repair; stabilization; rehabilitation; restoration; and preservation of historical resources in a manner consistent with federal and state standards.
- **General Plan Land Use Element Policy 12.11** Prior to the approval of any projects that propose the demolition or significant alteration of a potentially significant historic resource (as defined pursuant to applicable state and federal laws), require the completion of an historic survey report to determine significance. If determined to be significant, require appropriate and feasible mitigation pursuant to CEQA Guidelines, Section 15064.5.
- **General Plan Land Use Element Policy 12.12** In instances where projects may adversely affect significant historic resources, require the implementation of an appropriate conservation program in accordance with applicable state and federal laws.

D.6.3 Environmental Impacts and Mitigation Measures

D.6.3.1 Definition and Use of Significance Criteria

CEQA states that a project that may cause a substantial adverse change in the significance of a historical resource or that may have a significant effect on a unique archaeological resource may have a significant effect on the environment. The lead agency is required to determine whether a Proposed Project may adversely affect historical resources or unique archaeological resources. CEQA Section 15064.5 states: Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR. Unique archaeological resources are defined as artifacts, objects, or sites that contain information that

can answer an important scientific research question, has a special and particular quality, or is directly associated with an important prehistoric or historic event or person (PRC 21083.2(g)).

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

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- d) Disturb any human remains, including those interred outside of formal cemeteries.

Significant effects on historical resources or unique archaeological resources can be eliminated by pursuing an alternative course of action or mitigated to less-than-significant levels. Preservation in-place is the preferred manner for mitigating impacts to archaeological resources (CCR 15126.4(b)(3)(A)). If preservation in-place is not feasible, data recovery excavation is an acceptable alternative pursuant to the provisions of CCR 15126.4(b)(3)(C) (14 CCR 1500 et seq.).

D.6.3.2 Applicant Proposed Measures

Table D.6-1 presents the applicant proposed measures (APMs) proposed by SDG&E that apply to the Proposed Project to reduce potential impacts to cultural resources from construction.

**Table D.6-1
APMs for Cultural and Paleontological Resources**

APM No.	Description
APM-CUL-01	Prior to construction, all SDG&E, contractor, and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources and paleontological resources and to recognize possible buried resources. This training would 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.
APM-CUL-02	In the event that cultural resources are discovered, SDG&E’s cultural resource specialist and environmental project manager would be contacted at the time of discovery. SDG&E’s cultural resource specialist would determine the significance of the discovered resources. SDG&E’s cultural resource specialist and environmental project manager must concur with the evaluation procedures to be performed before construction activities in the vicinity of the discovery are allowed to resume. For significant cultural resources, a research design and data recovery program would be prepared and carried out to mitigate impacts.

**Table D.6-1
APMs for Cultural and Paleontological Resources**

APM No.	Description
APM-CUL-03	All collected cultural remains would be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.
APM-CUL-04	A qualified paleontologist would attend preconstruction meetings, as needed, to consult with the excavation contractor concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with an MS or PhD in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the region for at least 1 year. The requirements for paleontological monitoring would be noted on the construction plans.
APM-CUL-05	A paleontological monitor, defined as an individual who has experience in the collection and salvage of fossil materials, would work under direction of the qualified project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high paleontological resource sensitivity (i.e., Bay Point Formation). These impacts are likely to occur for all project-related excavations that extend deeper than 7 feet below present existing grades. For those project-related excavation activities known to be restricted to depths shallower than 7 feet, a paleontological monitor would not be needed on site. However, because the Pleistocene-age Bay Point Formation is locally covered by Quaternary alluvium and artificial fill deposits, careful monitoring of deeper excavations in these deposits (i.e., less than 6 to 7 feet) would be necessary to ensure that overall monitoring of the Bay Point Formation is as complete as possible.
APM-CUL-06	In the event that fossils are encountered, the project paleontologist would have the authority to divert or temporarily halt construction activities in the area of discovery to allow the recovery of fossil remains in a timely fashion. The paleontologist would contact SDG&E's cultural resource specialist and environmental project manager at the time of discovery. The paleontologist, in consultation with SDG&E's cultural resource specialist, would determine the significance of the discovered resources. SDG&E's cultural resource specialist and environmental project manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final summary report would be completed outlining the results of the mitigation program. The report would discuss the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

D.6.3.3 Bay Boulevard Substation

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

Construction

The Proposed Project involves the construction of a new substation that is proposed in an area that primarily consists of disturbed lands within the limits of the former LNG site and South Bay Power Plant (SBPP) property.

On the basis of a records search and review of historic maps, historic registers, landmark lists, and existing cultural surveys, no significant historic resources are known to be present in the Proposed Project area (SDGE 2010a). The Coronado Belt Line Railroad (CA-SDI-13073H) does occur within the project study area, but it is not listed as a historic landmark and has been removed from the CRHR (SDGE 2010a and b). Therefore, the railroad line is not considered to meet the significance criteria of historical resources for purposes of CEQA. Thus, impacts to known historical resources would be less than significant (Class III).

CA-SDI-13037H, an isolated artifact, was identified in the Proposed Project study area in 1977 and was not relocated (SDGE 2010a and b). However, due to the disturbed nature of the project area and the placement of a parking lot in the mapped location of the resource, this artifact is not considered significant for the purposes of CEQA. Thus, impacts to known historical resources would be less than significant (Class III).

Although the probability of subsurface historical deposits within the project area appears to be low based on previous work in the general area and project research conducted for the proposed project, construction activities would include ground disturbance that may result in the loss of previously unidentified or unknown historical resources. However, with implementation of APMs CUL-01 (construction personnel training regarding the appropriate work practices if resources are found), CUL-02 (contact a cultural resources specialist in the event resources are discovered), and CUL-03 (catalog and collected cultural remains to be analyzed to identify function and chronology), impacts would be less than significant (Class III).

Site CA-SDI-4886 was identified during the record search completed for the project area and consists of a flaked lithic tool (scraper). The location of the isolated artifact was highly disturbed by miscellaneous public dumping, as well as grading and vehicle traffic assumed to have been associated with the former LNG facilities. Due to the disturbed nature of the site and the current parking lot located where the artifact was mapped, this artifact is not considered significant for

purposes of CEQA. Thus, impacts to known historical resources would be less than significant (Class III).

Although the probability of subsurface archaeological deposits within the project area appears to be low based on previous work in the general area and project research conducted for the proposed project, construction activities may result in the loss of previously unidentified or unknown cultural resources. During construction, SDG&E would apply APMs CUL-01 (construction personnel training regarding the appropriate work practices if resources are found), CUL-02 (contact a cultural resources specialist in the event resources are discovered), and CUL-03 (catalog and collect cultural remains to be analyzed to identify function and chronology), as well as Mitigation Measure CUL-1, to ensure that impacts to unknown cultural resources would be less than significant (Class II).

CUL-1: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, such as chipped or ground stone, historic debris, building foundation, or human bones, all work within 50 feet of the resources shall be halted, and a qualified archaeologist shall be consulted to assess the significance of the find. If any find is determined to be significant, representatives of SDG&E, California Public Utilities Commission (CPUC), and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the CPUC. All significant cultural materials recovered shall be subject to scientific analysis; professional museum curation, as necessary; and a report prepared by a specialist according to current professional standards.

In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the CPUC and SDG&E shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out. If the CPUC, in consultation with the qualified archaeologist, determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, SDG&E will:

- Re-design the project to avoid any adverse effect on the significant archaeological resource

- Implement an archaeological data recovery program (ADRP), unless the qualified archaeologist determines that the archaeological resource is of greater interpretive use than research significance, and that interpretive use of the resource is feasible. If the circumstances warrant an ADRP, such a program shall be conducted. The project archaeologist and the CPUC shall meet and consult to determine the scope of the ADRP. The archaeologist shall prepare a draft ADRP that shall be submitted to the CPUC for review and approval. The ADRP shall identify how the proposed ADRP would preserve the significant information the archaeological resource is expected to contain. That is, the ADRP shall identify the scientific/historical research questions that are applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to portions of the historical property that could be adversely affected by the Proposed Project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

Operation and Maintenance

Operation and maintenance activities associated with the Proposed Project would be conducted in areas previously disturbed during construction. Future maintenance operations would involve routine maintenance and inspection activities at the proposed Bay Boulevard Substation site. Since no resources have been identified that meet the significance criteria for historical resources under CEQA and the Proposed Project operation and maintenance activities would not have an adverse effect on archaeological or historical resources, any potential impacts would be considered less than significant (Class III).

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.

Construction

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources, including human remains, are known to exist within the project limits. Although the probability of human remains discovery within the project area appears to be low based on previous work in the general area and project research conducted for the proposed project, the potential discovery of human remains would be considered a significant impact but one that can

be mitigated to less-than-significant levels with implementation of Mitigation Measure CUL-2 (Class II).

Mitigation Measure CUL-2 requires SDG&E to comply with state laws relating to Native American remains, including no further excavation or site disturbance if human remains are discovered or recognized and proper notification has taken place.

CUL-2: If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains until the project applicant has immediately notified the county coroner and otherwise complied with the provisions of State CEQA Guidelines, Section 15064.5(e). If the remains are found to be Native American, the county coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The most likely descendant of the deceased Native American shall be notified by the NAHC and given the opportunity to make proper disposition of human remains. If the NAHC is unable to identify the most likely descendant, or if no recommendations are made within 24 hours, remains may be reinterred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the NAHC will mediate.

Operation and Maintenance

Operation and maintenance activities associated with the proposed Bay Boulevard Substation are not anticipated to disturb human remains since no human remains have been identified and future maintenance operations would take place within area that was previously disturbed during construction.

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

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources and/or archaeological resources, including traditional cultural properties, are known to exist within the project limits. No resources meeting the CEQA significance criteria (14 CCR 15000 et seq.) for traditional cultural properties have been identified within the project limits. Therefore, no impact would occur.

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

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources and/or archaeological resources are known to exist within the project limits. The project does not propose the removal of any historical architectural features. No resources meeting the CEQA significance criteria for architectural resources have been identified within the project limits. Therefore, no impact would occur.

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

Construction

The Proposed Project would involve excavations below grade for the substation foundations. Construction of project components could directly disturb or destroy previously unknown paleontological resources or unique geologic features during ground-disturbing activities occurring within the Bay Point formation. With implementation of APMs CUL-04, CUL-05, and CUL-06, which require SDG&E to provide a paleontological monitor when work is proposed within the Bay Point formation and to stop work if resources are discovered, impacts would be less than significant (Class III).

Operation and Maintenance

Operation and maintenance activities associated with the Proposed Project would be conducted in areas that were previously disturbed during construction of the Proposed Project. As a result, it is not anticipated that paleontological resources would be encountered during such activities; therefore, impacts would be less than significant (Class III).

D.6.3.4 South Bay Substation Dismantling

Dismantling of the South Bay Substation would be conducted in areas that were previously disturbed during construction of the Proposed Project. As a result, it is not anticipated that archaeological, historical and/or paleontological resources would be encountered during such activities; therefore, impacts would be less than significant (Class III).

D.6.3.5 Transmission Interconnections

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

The Proposed Project involves the relocation of 69-kilovolt (kV) wood poles and the construction of 138 kV and 230 kV steel poles. The proposed transmission interconnections are located within an area that primarily consists of disturbed lands within the limits of the former LNG site and SBPP property. Although the probability of subsurface archaeological deposits within the project area appears to be low based on previous work in the general area and project research conducted for the proposed project, construction activities may result in the loss of previously unidentified or unknown cultural resources. During construction, SDG&E would apply APMs CUL-01 (construction personnel training regarding the appropriate work practices if resources are found), CUL-02 (contact a cultural resources specialist in the event resources are discovered), and CUL-03 (catalog and collect cultural remains to be analyzed to identify function and chronology), as well as Mitigation Measure CUL-1, to ensure that impacts to unknown cultural resources would be less than significant (Class II).

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.

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources, including human remains, are known to exist within the project limits. Although the probability of human remains discovery within the project area appears to be low based on previous work in the general area and project research conducted for the proposed project, the potential discovery of human remains would be considered a significant impact but one that can be mitigated to less-than-significant levels with implementation of Mitigation Measure CUL-2 (Class II).

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

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources and/or archaeological resources, including traditional cultural properties, are known to exist within the project limits, including where construction activities would be completed for the proposed transmission interconnections. No resources meeting the CEQA significance criteria for traditional cultural properties have been identified within the project limits. Therefore, no impact would occur.

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

As previously discussed in Section D.6.3.3 (Impact CUL-1), no known significant historical resources and/or archaeological resources are known to exist within the project limits. The project does not propose the removal of any historical architectural features. No resources meeting the CEQA significance criteria for architectural resources have been identified within the project limits. Therefore, no impact would occur.

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

The Proposed Project would involve undergrounding 69 kV transmission lines up to 12 feet belowground, excavating entry and receiving pits associated with the jack-and-bore horizontal construction technique where excavations could be up to 20 feet belowground, and excavating foundation holes up to 45 feet belowground to install steel poles for the 230 kV loop-in, 138 kV extension, and 69 kV relocation work.

Construction of project components could directly disturb or destroy previously unknown paleontological resources or unique geologic features during ground-disturbing activities occurring within the Bay Point formation. With implementation of APMs CUL-04, CUL-05, and CUL-06, which require SDG&E to provide a paleontological monitor when work is proposed within the Bay Point formation and to stop work if resources are discovered, impacts would be less than significant (Class III).

D.6.4 Project Alternatives

D.6.4.1 Gas Insulated Substation Technology Alternative

Environmental Setting

Section D.6.1 describes the cultural resources setting along the proposed project area. Because SDG&E Gas Insulated Substation technology would occur within the same area as the Proposed Project, the existing cultural resources conditions would be the same as described in Section D.6.1.

Environmental Impacts and Mitigation Measures

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint for the proposed Bay Boulevard Substation when compared to the

Proposed Project. This alternative would occupy approximately 4.4 acres. Ground disturbance under this alternative would be limited to the southern portion of the former LNG site.

As described in Section D.6.3.3, cultural sites have been recorded within the vicinity of the proposed Bay Boulevard Substation site, which have previously been determined as not significant. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Gas Insulated Substation Technology design alternatives would not be significantly different from the Proposed Project as ground disturbance for this design alternative would take place primarily within the same project area as the Proposed Project where no known cultural resources have been identified. Therefore, no impacts to cultural resources would occur either under this alternative or the Proposed Project.

D.6.4.2 Tank Farm Site Alternative

Environmental Setting

The Tank Farm site is located approximately 250 feet north of the existing South Bay Substation, and therefore, the cultural resources identified in Section D.6.1 as located within the vicinity of the Proposed Project would also be applicable to this alternative. The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Tank Farm site would be the same; therefore, environmental setting is not further discussed in Sections D.6.4.2.1 and D.6.4.2.2.

D.6.4.2.1 Tank Farm Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

As described in Section D.6.3.3, to identify the cultural resources present within the study area, records searches were conducted at the SCIC of the California Historic Resources Information System, SDSU, and at the San Diego Museum of Man. The records search study area encompassed a 1-mile radius around the Proposed Project area, which includes the Tank Farm site. The records searches consisted of reviews of archaeological site records and other cultural

technical reports prepared for projects that overlap portions of the Proposed Project (SDG&E 2010a). No cultural sites have been recorded within the limits of the Tank Farm site. Although no sites have been recorded within the limits of the Tank Farm site, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Tank Farm Site – Air Insulated Substation Alternative would not be significantly different from the Proposed Project since no cultural resources have been identified within the Tank Farm Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.2.2 Tank Farm Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, use of the Gas Insulated Substation Alternative would result in a smaller development footprint when compared to the Tank Farm Site – Air Insulated Substation Alternative. This alternative would occupy approximately 4.4 acres.

As described in Section D.6.4.2.1, no cultural sites have been recorded within the limits of the Tank Farm site. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Tank Farm Site – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project since no cultural resources have been identified within the Tank Farm Site Alternative limits. Implementation of Mitigation

Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.3 Existing South Bay Substation Site Alternative

Environmental Setting

Section D.6.1 describes the existing environmental setting of the Proposed Project and identifies cultural resources in proximity to the South Bay Substation. Because this alternative would construct a new substation at the existing South Bay Substation site, the existing cultural resource setting would be the same as described in Section D.6.1.

D.6.4.3.1 Existing South Bay Substation Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Development of the Air Insulated Substation Alternative at the existing South Bay Substation site and adjacent 3-acre area would occur within previously disturbed areas where archaeological, historical, or paleontological resources are not anticipated to be encountered. Known sites were not identified at the existing substation site during surveys conducted for the Proposed Project, and therefore, impacts are not anticipated at the site. Impacts to unknown cultural resources may occur during ground-disturbing activities within the adjacent 3-acre area as well as during work associated with transmission interconnections. To reduce potential CUL-1 and CUL-2 impacts to a less-than-significant (Class II) level, Mitigation Measures CUL-1 and CUL-2 would be implemented by SDG&E.

Because this alternative would occur within the same area that was previously analyzed for the Proposed Project, impacts to traditional cultural properties (CUL-3) and impacts to significant, known historic resources (CUL-4) would remain the same as those identified in Section D.6.3.4 for the dismantling of the existing South Bay Substation less than significant (Class III). Impacts to significant paleontological resources would also be less than significant (Class III) with implementation of APMs CUL-04, CUL-05, and CUL-06.

Comparison to the Proposed Project

Construction and operation of the Air Insulated Substation Alternative at the existing South Bay Substation site would generate similar impacts to cultural and paleontological resources (Impacts CUL-1 through CUL-4 and PALEO-1) when compared to the Proposed Project.

D.6.4.3.2 Existing South Bay Substation Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

No cultural sites have been recorded within the limits of the existing South Bay Substation site. Although no sites have been recorded within the limits of the existing South Bay Substation site, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.4 for the dismantling of the existing South Bay Substation, which were determined to have a less-than-significant (Class III) impact on cultural resources.

Comparison to the Proposed Project

Cultural resources impacts resulting from the construction and operation of the Existing South Bay Substation Site – Gas Insulated Substation Alternative would be the same when compared to the Proposed Project for Impact CUL-1 through CUL-4 and PALEO-1.

D.6.4.4 Power Plant Site Alternative

Environmental Setting

The Power Plant site is located immediately adjacent to and south of the existing South Bay Substation; therefore, the environmental setting discussed for the Existing South Bay Substation Site Alternative in Section D.6.4.3 is also applicable to this alternative. The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Power Plant site would be the same, and therefore, environmental setting is not further discussed in Sections D.6.4.4.1 and D.6.4.4.2.

D.6.4.4.1 Power Plant Site – Air Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

As described in Section D.6.3.3, to identify the cultural resources present within the study area, records searches were conducted at the SCIC of the California Historic Resources Information System, SDSU, and at the San Diego Museum of Man. The records search study area encompassed a 1-mile radius around the Proposed Project area, which includes the Tank Farm site. The records searches consisted of reviews of archaeological site records and other cultural technical reports prepared for projects that overlap portions of the Proposed Project (SDG&E 2010a). No cultural sites have been recorded within the limits of the Power Plant Site

Alternative. Although no sites have been recorded within the limits of the Power Plant site, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Power Plant Site – Air Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Power Plant Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.4.2 Power Plant Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint when compared to the Power Plant Site – Air Insulated Substation Alternative. This alternative would occupy approximately 4.4 acres.

As described in Section D.6.4.2.2, no cultural sites have been recorded within the limits of the Power Plant site. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Power Plant Site – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Power Plant Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.5 Broadway and Palomar Site Alternative

Environmental Setting

The 9-acre Broadway and Palomar site is located east of I-5 and approximately 1.2 miles southeast of the existing South Bay Substation. The site is located between Industrial Boulevard and Broadway, south of Palomar Street, and is situated between commercial uses to the north and commercial and light industrial uses to the south. The site features gently rolling topography from east to west; sparse, irregular, and low-growing vegetation across the site; and graded access roads and pads for existing transmission structures (the site is a transmission corridor owned by SDG&E). With the exception of transmission structures, the site is undeveloped.

The cultural resources identified in Section D.6.1 as located within the vicinity of the Proposed Project would also be applicable to this alternative. The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Broadway and Palomar site would be the same, and therefore, environmental setting is not further discussed in Sections D.6.4.5.1 and D.6.4.5.2.

D.6.4.5.1 Broadway and Palomar Site – Air Insulated Substation Alternative

The 9-acre Broadway and Palomar site is not physically large enough to accommodate the 10-acre Air Insulated Substation Alternative. As such, the Air Insulated Substation Alternative is not technically feasible at this site.

D.6.4.5.2 Broadway and Palomar Site – Gas Insulated Substation Alternative

The Broadway and Palomar site was surveyed as part of the SDG&E Otay Mesa Power Purchase Agreement (OMPPA) Project. The project resulted in the construction of 230 kV transmission lines that traverse the property. No cultural resource sites were identified within the limits of the Broadway and Palomar site (Engineering-Environment Management Inc. 2004).

Although no sites have been recorded within the limits of the Broadway and Palomar site, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Broadway and Palomar Site – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Broadway and Palomar Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.6 Goodrich South Campus Site Alternative

Environmental Setting

The Goodrich South Campus is located approximately 0.8 mile north of the existing South Bay Substation and just northwest of the J Street/Bay Boulevard intersection. RECON conducted a cultural resources survey of the alternative site in April and November 2005 as part of the environmental review completed for the Chula Vista Bayfront Master Plan (Final Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan 2005). No prehistoric cultural material has been recorded previously nor was any identified during field surveys within the limits of the Goodrich South Campus site. The site has been disturbed by previous historic and modern activities. The site was also built on fill imported previously to expand the Bayfront.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the Goodrich South Campus site would be the same, and therefore, environmental setting is not further discussed in Sections D.6.4.6.1 and D.6.4.6.2.

D.6.4.6.1 Goodrich South Campus Site – Air Insulated Substation Alternative

No cultural sites have been recorded within the limits of the Goodrich South Campus Site Alternative. Although no sites have been recorded within the limits of the Goodrich South Campus site, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.4.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Goodrich South Campus Site – Air Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Goodrich South Campus Site Alternative limits.

Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.6.2 Goodrich South Campus Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint when compared to the Goodrich South Campus Site – Air Insulated Substation Alternative. This alternative would occupy approximately 4.4 acres.

As described in Section D.6.4.6.2, no cultural sites have been recorded within the limits of the Goodrich South Campus site. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Goodrich South Campus – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project as no cultural resources have been identified within the Goodrich South Campus Gas Insulated Substation Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.7 H Street Yard Site Alternative

Environmental Setting

The H Street Yard Site Alternative is located approximately 0.8 mile north of the existing South Bay Substation and just northwest of the J Street/Bay Boulevard intersection. RECON conducted a cultural resources survey of the alternative site in April and November 2005 as part of the environmental review completed for the Chula Vista Bayfront Master Plan (Final EIR for the Chula Vista Bayfront Master Plan 2005). No prehistoric cultural material has been recorded previously nor was any identified during field surveys within the limits of the H Street Yard site.

The site has been disturbed by previous historic and modern activities. The site was also built on fill imported previously to expand the Bayfront.

The environmental setting for the Air Insulated Substation and Gas Insulated Substation Alternatives at the H Street Yard site would be the same, and therefore, environmental setting is not further discussed in Sections D.6.4.7.1 and D.6.4.7.2.

D.6.4.7.1 H Street Yard Site – Air Insulated Substation Alternative

No cultural sites have been recorded within the limits of the H Street Yard Site Alternative. Although no sites have been recorded within the limits of the H Street Yard Site Alternative, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.4.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from H Street Yard Site – Air Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the H Street Yard Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.7.2 H Street Yard Site – Gas Insulated Substation Alternative

Environmental Impacts and Mitigation Measures

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint when compared to the H Street Yard Site – Air Insulated Substation Alternative. This alternative would occupy approximately 4.4 acres.

As described in Section D.6.4.7.2, no cultural sites have been recorded within the limits of the H Street Yard site. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from H Street Yard – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the H Street Yard limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.8 Bayside Site Alternative

Environmental Setting

The Bayside Site Alternative is located approximately 1.6 miles north of the existing South Bay Substation. RECON conducted a cultural resources survey of the Bayside Site Alternative site in April and November 2005 as part of the environmental review completed for the Chula Vista Bayfront Master Plan (Final EIR for the Chula Vista Bayfront Master Plan 2005). No prehistoric cultural material has been recorded previously nor was any identified during field surveys within the limits of the Bayside site. The site has been disturbed by previous historic and modern activities. The site was also built on fill imported previously to expand the Bayfront.

D.6.4.8.1 Bayside Site – Air Insulated Substation Alternative

No cultural sites have been recorded within the limits of the Bayside Site Alternative. Although no sites have been recorded within the limits of the Bayside Site Alternative, potential impacts to unknown cultural resources could result. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.4.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from the Bayside Site – Air Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Bayside Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.8.2 Bayside Site – Gas Insulated Substation Alternative

Under this alternative, use of the Gas Insulated Substation Technology Alternative would result in a smaller development footprint when compared to the Bayside Site – Air Insulated Substation Alternative. This alternative would occupy approximately 4.4 acres.

As described in Section D.6.4.8, no cultural sites have been recorded within the limits of the Bayside site. Due to less ground disturbance required to construct the Gas Insulated Substation Technology Alternative, potential impacts to unknown cultural resources would be reduced; however, the potential to impact unknown cultural resources remains. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II). Potential impacts due to future maintenance and operation would be unchanged from those described in Section D.6.3.3 for the Proposed Project, which were determined to have no impact on cultural resources.

Comparison to the Proposed Project

Cultural resource impacts resulting from Bayside Site – Gas Insulated Substation Alternative would not be significantly different from the Proposed Project because no cultural resources have been identified within the Bayside Site Alternative limits. Implementation of Mitigation Measures CUL-1 and CUL-2 provided in Section D.6.3.3 would reduce impacts to unknown cultural resources to less-than-significant levels (Class II).

D.6.4.9 Environmental Impacts of the No Project Alternative

Under the No Project Alternative, none of the facilities associated with the Project would be constructed, and therefore, the potential impacts to undiscovered cultural resources discussed in this section would not occur. However, under the No Project Alternative, SDG&E may be required to develop additional transmission upgrades as described in Section C.7 of this EIR. Additional upgrades would primarily be located within developed areas, and therefore, it is anticipated that overall impacts to cultural and paleontological resources would be similar to those identified for the proposed project where no known cultural resources were identified.

D.6.5 Mitigation Monitoring, Compliance, and Reporting

Table D.6-2 shows the mitigation monitoring, compliance, and reporting program (MMCRP) for cultural resources. CPUC is the responsible agency for ensuring compliance with the monitoring program. The agency mitigation measures as well as the APMs that SDG&E has made part of the Proposed Project are listed. Table D.6-2 indicates whether the measure is applicant proposed or agency recommended.

**Table D.6-2
MMCRP for Cultural and Paleontological Resources**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
Impact CUL-1: Construction of the project would cause an adverse change to significant prehistoric or historic archaeological resources.	—	APM-CUL-01	Prior to construction, all SDG&E, contractor, and subcontractor project personnel would receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources and paleontological resources and to recognize possible buried resources. This training would 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.	SDG&E to conduct training program as described.	SDG&E to provide CPUC documentation demonstrating implementation of the training program.	Prior to ground-disturbing activities in all construction areas.
Impact CUL-1: Construction of the project would cause an adverse change to significant prehistoric or historic archaeological resources.	—	APM-CUL-02	In the event that cultural resources are discovered, SDG&E's cultural resource specialist and environmental project manager would be contacted at the time of discovery. SDG&E's cultural resource specialist would determine the significance of the discovered resources. SDG&E's cultural resource specialist and environmental project manager must concur with the evaluation procedures to be performed before construction activities in the vicinity of the discovery are allowed to resume. For significant cultural resources, a research design and data recovery program would be prepared and carried out to mitigate impacts.	SDG&E to provide qualified cultural resource specialist. Cultural resource specialist would prepare a Research Design and Data Recovery Program if needed.	CPUC to review Research Design and Data Recovery Program if needed.	During ground-disturbing activities in all construction areas. This measure applies only in the event that cultural resources are discovered during construction.
Impact CUL-1: Construction of the project would cause an adverse change to significant	—	APM-CUL-03	All collected cultural remains would be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.	SDG&E to provide qualified cultural resource specialist to coordinate cleaning, cataloguing, and curation at	SDG&E to provide CPUC documentation demonstrating implementation of data recovery program.	During construction. This measure applies to cultural remains encountered

**Table D.6-2
MMCRP for Cultural and Paleontological Resources**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
prehistoric or historic archaeological resources.				appropriate institution.		during ground-disturbing activities.
Impact PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.	—	APM-CUL-04	A qualified paleontologist would attend preconstruction meetings, as needed, to consult with the excavation contractor concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with an MS or PhD in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the region for at least 1 year. The requirements for paleontological monitoring would be noted on the construction plans.	SDG&E to provide qualified paleontologist and incorporate monitoring requirements on the construction plans.	CPUC to verify monitoring requirements through review of pre-construction plans. Documentation of paleontologist presence at pre-construction meeting as well as qualification including education and experience, provided to CPUC.	Prior to construction.
Impact PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.	—	APM-CUL-05	A paleontological monitor, defined as an individual who has experience in the collection and salvage of fossil materials, would work under direction of the qualified project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high paleontological resource sensitivity (i.e., Bay Point Formation). These impacts are likely to occur for all project-related excavations that extend deeper than 7 feet below present existing grades. For those project-related excavation activities known to be restricted to depths shallower than 7 feet, a paleontological monitor would not be needed on site. However, because the Pleistocene-age Bay Point Formation	SDG&E to provide qualified paleontological monitor and incorporate monitoring requirements on the construction plans.	CPUC to verify monitoring requirements through review of pre-construction plans. CPUC to verify paleontological monitor in the field.	Prior to and during construction. This measure applies to all ground disturbance activities extending deeper than seven feet occurring within the Bay Point Formation.

**Table D.6-2
MMCRP for Cultural and Paleontological Resources**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
			is locally covered by Quaternary alluvium and artificial fill deposits, careful monitoring of deeper excavations in these deposits (i.e., less than 6 to 7 feet) would be necessary to ensure that overall monitoring of the Bay Point Formation is as complete as possible.			
Impact PALEO-1: Construction of the project would destroy or disturb significant paleontological resources.	—	APM-CUL-06	In the event that fossils are encountered, the project paleontologist would have the authority to divert or temporarily halt construction activities in the area of discovery to allow the recovery of fossil remains in a timely fashion. The paleontologist would contact SDG&E's cultural resource specialist and environmental project manager at the time of discovery. The paleontologist, in consultation with SDG&E's cultural resource specialist, would determine the significance of the discovered resources. SDG&E's cultural resource specialist and environmental project manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field.	SDG&E to implement measure as defined and incorporate commitments into construction contracts. SDG&E to provide project paleontologist.	CPUC and SDG&E monitor to ensure work is suspended upon discovery of resources to ensure avoidance of all significant cultural resources. SDG&E to provide summary report of mitigation program to CPUC.	During construction in all work areas where fossils are encountered.

**Table D.6-2
MMCRP for Cultural and Paleontological Resources**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
			Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final summary report would be completed outlining the results of the mitigation program. The report would discuss the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.			
Impact CUL-1: Construction of the project would cause an adverse change to significant prehistoric or historic archaeological resources.	CUL-1	—	In the event that any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, such as chipped or ground stone, historic debris, building foundation, or human bones, all work within 50 feet of the resources shall be halted, and a qualified archaeologist shall be consulted to assess the significance of the find. If any find is determined to be significant, representatives of SDG&E, California Public Utilities Commission (CPUC), and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the CPUC. All significant cultural materials recovered shall be subject to scientific analysis; professional museum curation, as necessary; and a report prepared by a specialist according to current professional standards.	SDG&E to implement measure as defined. SDG&E to provide qualified archaeologist in the event that prehistoric or historic subsurface cultural resources are discovered.	CPUC and SDG&E monitor to ensure work is suspended upon discovery of resources to ensure avoidance of all significant cultural resources. SDG&E to provide summary report of mitigation program to CPUC. The qualifications of the archaeologist shall be approved by the CPUC.	During construction in all work areas where prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities.
Impact CUL-1: Construction of the project would cause an adverse change to	CUL-2	—	If human remains are discovered, there shall be no further excavation or disturbance of the discovery site or any nearby area reasonably suspected to overlie adjacent human remains until the project applicant has immediately notified the county	SDG&E to provide qualified archaeologist to monitor during ground-disturbing activities.	CPUC and SDG&E monitor to ensure work is suspended upon discovery of resources to ensure avoidance	During ground-disturbing activities in all construction areas.

**Table D.6-2
MMCRP for Cultural and Paleontological Resources**

Impact	MM	APM No.	Mitigation Measure/ Applicant Proposed Measure	Implementation Actions	Monitoring Requirements and Effectiveness Criteria	Timing of Action and Location
significant prehistoric or historic archaeological resources. 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.			coroner and otherwise complied with the provisions of State CEQA Guidelines, Section 15064.5(e). If the remains are found to be Native American, the county coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The most likely descendant of the deceased Native American shall be notified by the NAHC and given the opportunity to make proper disposition of human remains. If the NAHC is unable to identify the most likely descendant, or if no recommendations are made within 24 hours, remains may be reinterred with appropriate dignity elsewhere on the property in a location not subject to further subsurface disturbance. If recommendations are made and not accepted, the NAHC will mediate.	SDG&E to contact County Coroner if human remains are found. Coroner to contact NAHC if appropriate.	of all significant cultural resources. The qualifications of the qualified archaeologist shall be approved by the CPUC.	

D.6.6 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 U.S.C. 470–470x-6. National Historic Preservation Act of 1966, as amended. Accessed October 25, 2010. <http://www.achp.gov/nhpa.html>.

California Public Resources Code, Sections 5020–5029.5; Sections 21080–21098. Accessed October 25, 2010. <http://www.leginfo.ca.gov/calaw.html>.

Deméré, T. A., and S. L. Walsh. 1993. Paleontological Resources, County of San Diego. Prepared for the Department of Public Works, County of San Diego, 1–68.

- Engineering-Environment Management Inc. 2004. Cultural Resources Technical Report for the SDG&E OMPPA Transmission Project. July.
- Kennedy, M.P. 1975. Geology of the San Diego metropolitan area, California. Section A – Western San Diego metropolitan area. California Division of Mines and Geology, *Bulletin* 200:9–39.
- Kennedy, M.P., and S.S. Tan. 1977. Geology of National City, Imperial Beach, and Otay Mesa quadrangles, southern San Diego Metropolitan area, California. California Division of Mines and Geology, Map Sheet 29.
- City of Chula Vista. 2005. *City of Chula Vista Vision 2020 General Plan*, Chapter 5, “Land Use and Transportation Element.” Adopted December 13, 2005.
- City of Chula Vista. 2010, City of Chula Vista Municipal Code, Title 2, Chapter 2.32, Section 2.32.030. Accessed October 25, 2010. http://www.codepublishing.com/ca/chulavista_html.html.
- SDG&E (San Diego Gas & Electric Company). 2010a. *Proponent’s Environmental Assessment (PEA) for South Bay Substation Relocation Project*. Prepared by Insignia Environmental. June 2010.
- SDG&E. 2010b. *Proponent’s Environmental Assessment (PEA) for South Bay Substation Relocation Project*, Attachment 4.5-A, Phase 1 Cultural Resource Survey for the SDG&E South Bay Substation Relocation Project, San Diego County, California. Report No. 4482-2A: prepared by RECON Environmental Inc.
- SDG&E. 2010c. *Proponent’s Environmental Assessment (PEA) for South Bay Substation Relocation Project*, Attachment 4.5-C, Paleontological Resources Assessment, prepared by San Diego Natural History Museum, Department of PaleoServices. April 2010.
- SDG&E. 2010d. Proponent’s Environmental Assessment (PEA) for South Bay Substation Relocation Project, Attachment 4.5-B, NAHC Correspondence.

INTENTIONALLY LEFT BLANK