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**LIST OF ATTACHMENTS**

- Attachment 4.5-A: Cultural Resources Technical Report (Confidential)
- Attachment 4.5-B: Paleontological Resources Technical Report (Confidential)



## 4.5 CULTURAL, TRIBAL, AND PALEONTOLOGICAL RESOURCES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?			✓	
e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	<i>Significance Determination Pending Completion of Tribal Consultation</i>			

### 4.5.0 Introduction

This section describes the archaeological, historical, and paleontological resources identified within the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company—hereinafter referred to as “the Applicants”—Pipeline Safety & Reliability Project (Proposed Project) and identifies potential impacts that could result from construction, operation, and maintenance of the Proposed Project. The Proposed Project involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline that will carry natural gas from SDG&E’s existing Rainbow Metering Station to the pipeline’s terminus on Marine Corps Air Station (MCAS) Miramar. For purposes of this analysis, cultural resources will include, but are not limited to, archaeological sites, sacred sites, tribal cultural resources, traditional cultural properties, rock art, rock piles or cairns, historical buildings, or other features of the historic built environment. Paleontological resources, or fossils, are the remains of ancient plants and animals that can provide information about the history of life on earth. Tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. With the implementation of Applicants-Proposed Measures (APMs), potential impacts to cultural and paleontological resources that may result from the Proposed Project will be less than significant.

### **4.5.1 Methodology**

The analysis in this section is based on desktop and field-level research and investigation conducted to identify and delineate potential cultural and paleontological resources within the Proposed Project area. In November 2014, ASM Affiliates, Inc. (ASM) conducted a literature review of previously prepared reports and a records search within a one-mile radius of the Proposed Project. A cultural resources field survey of the Proposed Project area was conducted by ASM in April and May 2015. The results from ASM's literature review, records search, and field survey are included in Attachment 4.5-A: Cultural Resources Technical Report (Confidential).

In October and November 2014, the San Diego Natural History Museum (SDNHM) Department of PaleoServices (DPS) conducted a paleontological literature and records search and field survey along select areas of the Proposed Project. Results from both the literature and records search and the field survey are included in Attachment 4.5-B: Paleontological Resources Technical Report (Confidential).

The following subsections detail the methodology used to conduct the records search and field investigations for cultural and paleontological resources.

#### **Cultural Resources**

##### ***Records Search***

A record search at the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS) located at San Diego State University was performed within a one-mile radius of the Proposed Project temporary and permanent impact footprint. The records search included a search of all relevant site records on file in CHRIS, as well as a search of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and other local registers to determine if significant archaeological or historical sites have been previously recorded within or near the Proposed Project. In addition, a record search for Native American cultural resources and Traditional Cultural Properties of the Sacred Lands File held by the Native American Heritage Commission (NAHC) was conducted.

##### ***Field Investigation***

The field investigation conducted by archaeologists (ASM) and Native American Monitors (Saving Sacred Sites and Redtail Research and Monitoring, Inc.) included an approximately 150-foot survey corridor along the Proposed Project route in both urban and cross-country areas (with the exception of MCAS Miramar, for which adequate survey data already exists). The survey corridor included the area of potential effect (APE) and all Proposed Project staging areas. Title 36, Section 800.16(d) of the Code of Federal Regulations (CFR) requires the APE to be "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." The Proposed

Project's APE contains the Proposed Project's footprint, which includes a width of 50 to 100 feet along the Proposed Project alignment, depending on its location,<sup>1</sup> and all staging areas.

All portions of the survey area that could be safely surveyed by foot, and that offered some realistic potential for cultural resources, were surveyed. The survey only included a visual inspection of the ground surface within the survey corridor; no subsurface investigations were performed. Areas with very steep slopes, bodies of water, areas with no ground surface visibility, or areas where modern construction has destroyed or buried the natural ground surface were excluded from the field survey. Prior to the start of fieldwork, the survey area was plotted on electronic versions of United States (U.S.) Geological Survey 7.5-minute topographic maps. The field survey was conducted at 15-meter intervals or along contour intervals, depending on terrain. All areas with a slope of less than 20 percent were completely inventoried, while areas with a greater slope were inventoried in a less intensive manner. The spatial extent and general character of any identified resources were documented according to prevailing professional standards. Archaeological isolates were distinguished from sites on the basis that isolates consist of three or fewer artifacts within a 50-meter radius. At all sites, the spatial boundaries were delineated, site maps were drawn, artifacts were plotted, artifact inventories were completed, and material types were noted. The process of archaeological site documentation varied slightly depending on the type of artifacts and features that were identified; however, all previously recorded site updates and newly recorded resources were documented on appropriate California Department of Parks and Recreation (DPR) forms and submitted to the SCIC for future researchers. Previously recorded sites that appeared to be in the same condition as the previous recordation were noted but not re-recorded.

## **Paleontological Resources**

### ***Records Search***

Information on the geologic setting and the potential presence of paleontological resources was derived from published and unpublished geologic and paleontological reports. Additionally, the SDNHM databases were searched for records of fossil finds within a 0.5-mile radius of the Proposed Project.

### ***Field Investigation***

The field investigation was conducted on October 17, 2014 and November 13, 2014, which included pedestrian and vehicular surveys, along select areas of the Proposed Project to field-verify the results of the literature and records search and to determine the paleontological potential of the existing geologic units. Areas that were surveyed included only the portion of the Proposed Project located on MCAS Miramar, as well as portions of the Proposed Project that are underlain by sedimentary rock units, or immediately adjacent to areas underlain by sedimentary rock units. In some cases, areas surrounding the Proposed Project footprint were explored where no outcrops immediately underlying the Proposed Project were available. This approach was followed with the understanding that strata within sedimentary rock units are laterally continuous, and thus, knowledge of the types of strata exposed in adjacent areas will

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<sup>1</sup> The APE is generally narrower in urban areas where the Proposed Project is confined to the road and road shoulder; in contrast, the APE is generally wider where the Proposed Project travels through undeveloped land.

provide information concerning the types of strata that may be directly impacted by the Proposed Project.

## **4.5.2 Existing Conditions**

### **Regulatory Background**

The following federal, state, and local regulations and policies pertaining to cultural and paleontological resources are relevant to the Proposed Project.

#### ***Federal***

##### *National Historic Preservation Act*

The National Historic Preservation Act (NHPA), enacted in 1969, requires federal agencies to consider the effects of their undertakings on historical properties. Historical properties are cultural resources (i.e., archaeological sites, historic built environment features, or Native American sites) that are listed on or determined to be eligible for listing on the NRHP. The governing regulation, Section 106 of the NHPA, is codified in Title 54 of the United States Code (U.S.C.) (Title 54 U.S.C. Section 300101 *et seq.*). The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Federal Advisory Council on Historic Preservation located at Title 36, Part 800 of the CFR. Part 800 requires a project's lead federal agency to consult with the State Historic Preservation Officer (SHPO) regarding potential impacts to historical properties. The goal of the Section 106 process is to offer a measure of protection for cultural resources that are determined eligible or potentially eligible for listing on the NRHP. The criteria for determining eligibility, which can be found in Title 36 CFR Section 60.4, are as follows:

“The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- a) that 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 distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) that have yielded, or may be likely to yield, information important in prehistory or history.”

##### *American Indian Religious Freedom Act of 1978*

The American Indian Religious Freedom Act establishes a federal policy of respect for, and protection of, Native American religious practices. It also contains provisions that allow limited access to Native American religious sites.

*Native American Graves Protection and Repatriation Act of 1990*

The Native American Graves Protection and Repatriation Act provides for the repatriation of certain items from the federal government and certain museums to the native groups to which they once belonged. The act defines “cultural items,” “sacred objects,” and “objects of cultural patrimony,” and establishes a means for determining ownership of these items. However, the provisions for repatriation only apply to items found on federal lands.

*Executive Orders 13007 and 13084*

Executive Order 13007 requires federal agencies with land management responsibilities to allow access to and use of Native American sacred sites on public lands and to avoid adversely affecting these sites. Executive Order 13084 reaffirms the government-to-government relationship between the federal government and recognized Native American tribes, and requires federal agencies to establish procedures for consultation with tribes. These executive orders only apply to projects that are federal undertakings or have federal involvement.

*Archaeological Resources Protection Act of 1979*

The Archaeological Resources Protection Act applies to projects that are located on public lands and Native American lands. The purpose of this act is “the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data which were obtained before the date of the enactment of this Act.”

*Paleontological Resources Preservation Act*

On March 30, 2009, the Paleontological Resources Preservation Act (16 U.S.C Title 16, Chapter 1C) became law. This law requires the U.S. Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal lands using scientific principles and expertise. The U.S. Forest Service published its final regulations regarding paleontological resources on April 17, 2015 (see 80 Federal Register 21588). Final regulations from the agencies within Department of Interior (including the Bureau of Land Management, Bureau of Reclamation, Fish and Wildlife Service, and National Park Service) are forthcoming.

*MCAS Miramar*

The Integrated Natural Resources Management Plan (INRMP), which guides the implementation of natural resources management on MCAS Miramar, includes the considerations and objective of cultural resources protection on MCAS Miramar. The objective states, “Implement this INRMP in a manner consistent with the protection of cultural resources at MCAS Miramar.” The INRMP also requires the appropriate review of natural resource management projects by the Cultural Resource Manager to ensure that adverse effects to archaeological sites are avoided.

*State**California Environmental Quality Act*

The California Environmental Quality Act (CEQA) requires that impacts to cultural resources are identified and, if impacts will be significant, that mitigation measures are implemented to

reduce those impacts to the extent feasible. In the protection and management of the cultural environment, both the statute (California Public Resources Code [PRC] § 21000 *et seq.*) and its CEQA Guidelines provide definitions and standards for cultural resources management. Pursuant to CEQA Guidelines (14 California Code of Regulations) Section 15064.5(a), the term “historical resource” includes the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.
2. A resource included in a local register of historical resources or identified as significant in a historical resource survey shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site area, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a cultural resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources, including the following:
  - a) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
  - b) Is associated with the lives of persons important in our past;
  - c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - d) Has yielded, or may be likely to yield, information important in prehistory or history. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources, or identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource.

CEQA, in PRC Section 21083.2(g) defines a “unique archaeological resource” as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- a) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

- b) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- c) Is directly associated with a scientifically recognized important prehistoric or historical event or person.

Section 15064.5(b)(1) of the CEQA Guidelines explains that effects on cultural properties that qualify as historical resources or unique archaeological resources would be considered adverse if they involve physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired.

The statutes and guidelines cited previously specify how cultural resources are to be analyzed for projects subject to CEQA. Archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways.

Paleontological resources are protected under CEQA. Paleontological resources are limited, non-renewable resources of scientific, cultural, and educational value. PRC Section 5097 et seq. governs the preservation and protection of these resources.

#### *Senate Bill 18*

Senate Bill No. 18 (SB 18) requires cities and counties to contact and consult with California Native American tribes prior to amending or adopting any general plan or specific plan, or designating land as open space. The Office of Planning and Research (OPR) was required by SB 18, which went into effect on March 1, 2005, to update their city and county general plan guidelines to include advice and procedures, developed in consultation with the NACH, for consulting with California Native American tribes for the preservation of, or the mitigation of impacts to, specified Native American places, features, and objects. SB 18 establishes meaningful consultations between California Native American tribal governments and California local governments at the earliest stage possible in the local land use planning process, recognizing that California Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places are essential elements in tribal cultural traditions, heritages, and identities.

#### *Assembly Bill 52*

Assembly Bill No. 52 (AB 52) amends CEQA by creating a new category of cultural resources, tribal cultural resources, and new requirements for consultation with Native American Tribes. AB 52 specifies that a project that may cause a substantial adverse change to a tribal cultural resource is a project that may have a significant effect on the environment. The bill defines “tribal cultural resources” as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and is either on or eligible for inclusion in the CRHR. Otherwise, a resource determined by a lead agency, at its discretion and supported by substantial evidence, may choose to treat a resource as a tribal cultural resource. AB 52 requires early notice and, if requested by a tribe, consultation with California Native American tribes on the NAHC list. The bill goes into effect on July 1, 2015 and Draft Guidelines were released in June of 2015; however, the Final CEQA Guidelines will not be updated until July of 2016.

AB 52 requires early notice and, if requested by a tribe, consultation with California Native American tribes on the NAHC list. Lead agencies will be required to offer Native American tribes with an interest in tribal cultural resources located within its jurisdiction the opportunity to consult on CEQA documents. The new procedures under AB 52 offer the tribes an opportunity to take an active role in the CEQA process in order to protect tribal cultural resources. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult the tribe. Guidelines for AB 52 are currently in progress to help implement this new requirement.

Although the CEQA Guidelines will not be formally updated with the new question regarding tribal cultural resources until July of 2016, in the interim period, the OPR suggests that lead agencies consider the following question in their environmental documents:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

#### *California Register of Historical Resources*

The CRHR is a public listing of specific properties to be “protected from substantial adverse change” that was established by the California Office of Historic Preservation. Any resource eligible for listing in the CRHR must also be considered under CEQA. PRC Section 21084.1, provides that a project that may cause a substantial adverse change in the significance of an historical resources, defined as a resource listed in, or determined to be eligible for listing in the CRHR, is a project that may have a significant effect on the environment.

As defined under PRC Section 5024.1(c), a historical resource may be listed in the CRHR if it meets one or more of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the U.S.
2. It is associated with the lives of persons who are important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic value.
4. It has yielded or has the potential to yield information that is important in the prehistory or history of the local area, California, or the nation.

Automatic listings include properties listed in the NRHP—which are determined to be eligible either by the Keeper of the National Register or through a consensus determination on a project review—or State Historical Landmarks from number 770 onward. In addition, Points of Historical Interest nominated since January 1998 are to be jointly listed as Points of Historical Interest and in the CRHR. Landmarks prior to number 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

Resources listed in a local historic register or deemed significant in a historical resources survey, as provided under PRC Section 5024.1(g), are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates that they are not (PRC § 21084.1). A resource that is not listed in or is determined to be ineligible for listing in the

CRHR, is not included in a local register of historical resources, or is not deemed significant in a historical resources survey may, nonetheless, be historically significant (PRC § 21084.1).

*California Native American Graves Protection and Repatriation Act of 2001, California Health and Safety Code*

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code Sections 8010 through 8030, known as the California Native American Graves Protection and Repatriation Act (Cal NAGPRA). Cal NAGPRA established a state policy to ensure that California Native American human remains and cultural items are treated with respect and dignity. The Cal NAGPRA also provides the mechanism for disclosure and return of human remains and cultural items held by publicly funded agencies and museums in California. Likewise, the Cal NAGPRA outlines the process that California Native American tribes that are not recognized by the federal government may follow to file claims for human remains and cultural items held in agencies or museums.

*California Public Resources Code*

Several provisions of the PRC govern archaeological finds in terms of human remains, or any other related object of archaeological or historical interest or value. Procedures are detailed under PRC Section 5097.9 through 5097.994 for actions to be taken whenever Native American remains are discovered. Under these provisions, if a county coroner determines that human remains found during excavation or disturbance of land are Native American, the coroner must contact the NAHC within 48 hours, and the NAHC must determine and notify the Most Likely Descendant (MLD) who may make recommendations for removal and nondestructive analysis of the remains and for the removal of items associated with Native American burials or cremations. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing any human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

***Local***

Pursuant to Article XII, Section 8 of the California Constitution, the California Public Utilities Commission (CPUC) has exclusive jurisdiction in relation to local government to regulate the design, siting, installation, operation, maintenance, and repair of natural gas pipeline transmission facilities. Other state agencies have concurrent jurisdiction with the CPUC. Although local governments do not have the power to regulate such activities, the CPUC encourages, and the Applicants participate in, cooperative discussions with affected local governments to address their concerns where feasible. As part of the environmental review process, the Applicants have considered the following relevant regional and county policies and issues regarding cultural and paleontological resources.

*County of San Diego*

General Plan

The County of San Diego goals and policies pertaining to cultural and paleontological resources can be found in the Conservation and Open Space Element of the County of San Diego General Plan. The Conservation and Open Space Element includes three goals relevant to cultural, historical, and paleontological resources.

The first goal, COS-7, is the protection and preservation of the county's important archaeological resources for their cultural importance to local communities, as well as for their research and educational potential. The county has developed the following policies relevant to the Proposed Project to help ensure the protection of archaeological resources:

- COS-7.1: Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- COS-7.2: Require development to avoid archeological resources whenever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
- COS-7.3: Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.
- COS-7.4: Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
- COS-7.5: Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the MLD and under the requirements of federal, state, and county regulations.
- COS-7.6: 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.

The second goal, COS-8, is the protection, conservation, use, and enjoyment of the county's important historic resources. The county has developed the following policy to help ensure the protection of historical resources.

- COS-8.1: Encourage the preservation and/or adaptive reuse of historical sites, structures, and landscapes as a means of protecting important historical resources as part of the discretionary application process, and encourage the preservation of historical structures identified during the ministerial application process.

The third goal, COS-9, is that paleontological resources and unique geologic features be conserved for education and/or scientific purposes. The county has developed the following polios to help ensure the protection of paleontological resources.

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

### Local Register of Historical Resources

In addition, the County of San Diego maintains a Local Register that was modeled after the CRHR. Significance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, or culture. Any resource that is significant at the national or state level is by definition also significant at the local level. The criteria for eligibility for the Local Register are comparable to the criteria for eligibility for the CRHR and NRHP, but significance is evaluated at the local level. The Local Register includes the following:

1. Resources associated with events that have made a significant contribution to the broad patterns of California or San Diego County's history and cultural heritage;
2. Resources associated with the lives of persons important to our past, including the history of San Diego and our communities;
3. Resources that embody the distinctive characteristics of a type, period, region (San Diego County), or method of construction, or represent the work of an important creative individual, or possesses high artistic values; and
4. Resources that have yielded or are likely to yield, information important in prehistory or history.

Districts are significant resources if they are composed of integral parts of the environment that collectively (but not necessarily as individual elements) are exceptional or outstanding examples of prehistory or history.

Under the County of San Diego guidelines for determining significance of cultural and historical resources, any site that yields information or has the potential to yield information is considered a significant site. Unless a resource is determined to be "not significant" based on the criteria for eligibility described above, it will be considered a significant resource. If it is agreed to forego significance testing on cultural sites, the sites will be treated as significant resources and must be preserved through project design. The County of San Diego also treats human remains as "highly sensitive." They are considered significant if interred outside a formal cemetery. Avoidance of impacts is the preferred treatment.

### Resource Protection Ordinance

The County of San Diego's Resource Protection Ordinance (RPO) defines significant prehistoric and historic sites. A significant prehistoric or historic site under the RPO is defined as follows:

1. Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:
2. Formally determined eligible or listed in the NRHP; or
3. To which the Historic Resource (H designator) Special Area Regulations have been applied; or
4. One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data or materials; or
5. Any location of past or current sacred religious or ceremonial observances which is either:
  - a) Protected under Public Law 95-341, the American Religious Freedom Act, or Public Resources Code Section 5097.9, such as burials, pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, or
  - b) Other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

### *City of San Diego*

The City of San Diego regulations and policies pertaining to cultural resources and paleontological resources can be found in Chapters 11, 12, and 14 of the Municipal Code, which establishes the Historical Resources Board (HRB) authority, appointment and terms, meeting conduct, and powers and duties; the designation process including the nomination process, noticing and report requirements, appeals, recordation, amendments or rescission, and nomination of historical resources to state and national registers; and development regulations for historical resources. The purpose of these regulations is to protect, preserve, and restore (if damaged) the historical resources of the City San Diego.

The historical resources regulations require that designated historical resources, important archeological sites, and traditional cultural properties are preserved unless deviation findings can be made by the decision-maker as part of a discretionary permit. Minor alterations that are consistent with the U.S. Secretary of the Interior's standards are exempt from the requirement to obtain a separate permit, but must comply with the regulations and associated historical resources guidelines. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval.

The Historical Resources Guidelines, located in the City of San Diego's Land Development Manual, provide property owners, the development community, consultants, and the general public explicit guidance for the management of historical resources located within the City of San Diego's jurisdiction. These guidelines are designed to implement the historical resources regulations and guide the development review process. The guidelines also address the need for a survey and how impacts are to be assessed, available mitigation strategies, and report requirements. They also include appropriate methodologies for treating historical resources located in the City of San Diego.

Any improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object may be designated as historic and listed on the City of San Diego Historical Resources Register by the HRB if it meets any of the following criteria:

1. Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development;
2. Is identified with persons or events significant in local, state or national history;
3. Embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
4. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman;
5. Is listed or has been determined eligible by National Park Service for listing on the NRHP or is listed or has been determined eligible by the SHPO for listing on the CRHR; or
6. Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

The Historic Preservation Element of the City of San Diego General Plan was prepared to guide the preservation, protection, restoration, and rehabilitation of the City of San Diego's historical and cultural resources. Many of the goals and policies described in the Historic Preservation Element outline the City of San Diego's efforts to identify historic resources and facilitate historic resource programs such as building relationships with tribes and public participation. The following policy guides the City of San Diego in land use and development decisions:

- HP-A.2: Fully integrate the consideration of historical and cultural resources in the larger land use planning process.
  - a) Promote early conflict resolution between the preservation of historical resources and alternative land uses.
  - b) Encourage the consideration of historical and cultural resources early in the development review process by promoting the preliminary review process and early consultation with property owners, community and historic preservation groups, land developers, Native Americans, and the building industry.
  - c) Include historic preservation concepts and identification of historic buildings, structures, objects, sites, neighborhoods, and non-residential historical resources in the community plan update process.

- d) Conservation areas that are identified at the community plan level, based on historical resources surveys, may be used as an urban design tool to complement community character (see also Urban Design Element, Policy UD-A.7).
- e) Make the results of historical and cultural resources planning efforts available to planning agencies, the public and other interested parties to the extent legally permissible.

### *City of Escondido*

The City of Escondido regulations and policies pertaining to cultural resources and paleontological resources can be found in Chapter 33 of the Municipal Code, which aims to protect historical resources, sites, and districts that represent or reflect elements of the city's cultural, social, economic, political, and architectural history. In addition, Chapter 33 of the Municipal Code establishes an historic preservation commission to advise the city council and planning commission in matters relating to the protection of historical sites. The historical resource regulations make it unlawful for any person to remove or alter any historical resource, or portion thereof, that has been listed on the Escondido Historic Sites Survey or local register, or is otherwise a designated local landmark or located within an historical overlay district.

Chapter 33 Zoning, Article 40 Historical Resources of the Municipal Code states that historical resources eligible for the local register or historical landmark status must conform to one or more of the criteria in the following list. Archaeological resources and structural resources eligible for the local register must be evaluated against Criteria 1 through 7 and must meet two of the criteria. Signs eligible for listing on the local register must meet one of Criteria 8 through 10. Landscape features must meet Criterion 11. The criteria are as follows:

1. Escondido historical resources that are strongly identified with a person or persons who significantly contributed to the culture, history, prehistory, or development of the City of Escondido, region, state or nation;
2. Escondido building or buildings that embody distinguishing characteristics of an architectural type, specimen, or are representative of a recognized architect's work and are not substantially altered;
3. Escondido historical resources that are connected with a business or use that was once common but is now rare;
4. Escondido historical resources that are the sites of significant historic events;
5. Escondido historical resources that are fifty (50) years old or have achieved historical significance within the past fifty (50) years;
6. Escondido historical resources that are an important key focal point in the visual quality or character of a neighborhood, street, area or district;
7. Escondido historical building that is one of the few remaining examples in the city possessing distinguishing characteristics of an architectural type;

8. Sign that is exemplary of technology, craftsmanship or design of the period when it was constructed, uses historical sign materials and is not significantly altered;
9. Sign that is integrated into the architecture of the building, such as the sign pylons on buildings constructed in the Modern style and later styles;
10. Sign that demonstrates extraordinary aesthetic quality, creativity, or innovation;
11. Escondido landscape feature that is associated with an event or person of historical significance to the community or warrants special recognition due to size, condition, uniqueness or aesthetic qualities.

A certificate of appropriateness is required for any new construction or alteration that would affect the exterior appearance of an historical resource. A certificate of appropriateness is issued by the planning division staff, historical preservation commission, planning commission, or the city council after the action is determined consistent with the historical resource's guidelines, design, and significance. Routine maintenance, installation of temporary fixtures, and maintenance and removal of plantings and non-mature trees do not require a certificate of appropriateness. Emergency and non-emergency demolition permits may also be considered by the historical preservation commission.

Chapter VII, Section G of the City of Escondido General Plan includes goals and policies related to the preservation of important cultural and paleontological resources that contribute to the unique identity and character of Escondido. Policies include consulting with appropriate organizations and individuals (i.e., Native American groups and individuals and the SDNHM) early in development processes; reviewing proposed new development with the surrounding historic content; and maintenance of the Escondido Historic Sites Survey. Specifically, Cultural Resources Policy 5.6 required the City of Escondido to review proposed new development and/or remodels for compatibility with the surrounding historic context

#### *City of Poway*

The City of Poway regulations and policies pertaining to cultural resources and paleontological resources can be found in Chapter 17 of the Municipal Code, which establishes a preliminary historic/cultural resources inventory for 33 identified sites. The regulations are intended to protect, enhance, and perpetuate historical and cultural resources, sites, and districts that represent or reflect elements of the City of Poway's cultural, social, economic, political, and architectural history. Procedures for designation of historic landmarks, issuance of a certificate of historical significance, and obtaining approval for demolition of historic landmarks are also described. Any request must be submitted to and reviewed by the Planning Services Department and/or Development Services Department.

The City of Poway General Plan includes a Prehistoric and Historic Resources Element, which establishes goals pertaining to the preservation of cultural and paleontological resources. Policies D and E of the Prehistoric and Historic Resources Element discuss cultural resources. Policy D states that archaeological resources are an important part of the city's heritage and should be preserved and protected. Policy E relates to historic resources and states that the

historical structures that remain in Poway contribute significantly to the rural small town character of the community and should be preserved. Both policies have strategies to help in the preservation and protection of cultural resources, including setting guidelines for the treatment of archaeological resources; maintaining a list of significant prehistoric sites and correlating open space easements, if any; maintaining a historic sites list of each site, structure, or feature recognized as historically sensitive or significant to the City of Poway's heritage; and developing standards for community design adjacent to historic structures.

### **Environmental Setting**

The following subsections describe the cultural and paleontological setting of the Proposed Project area. As the information in the following subsections were provided by Attachment 4.5-A: Cultural Resources Technical Report (Confidential) and Attachment 4.5-B: Paleontological Resources Technical Report (Confidential), all referenced sources are included in the technical reports themselves.

#### ***Geography***

The Proposed Project is located in the Peninsular Ranges of southern California. Elevations within the Proposed Project area range from mountain peaks to valley floors. Major watersheds within the Proposed Project area include the San Luis Rey River and the San Dieguito Rivers. The Proposed Project area passes through Rainbow Valley, Moosa Canyon, Valley Center, Escondido Valley, and Poway Valley.

Landforms within the Proposed Project area include rolling hills and valleys, extending eastward to the Peninsular Ranges. Sediments accumulated through ocean, stream, wind, and gravitational activities characterize recent geologic deposits. The region is characterized by a Mediterranean semiarid steppe climate, moderated by coastal proximity. Precipitation averages 270 mm per year and falls primarily in the winter (from December to April).

#### ***Geology***

The Proposed Project area lies within the Southern California Batholith and the Peninsular Ranges. Mesozoic (245 to 65 million years ago) granitic and gabbroic rock and Quaternary (1.6 million years ago to present) sedimentary deposits are also present within the Proposed Project area. The granitic and gabbroic rocks were formed in the Cretaceous period during the latter part of the Mesozoic era. They are part of the western zone of the Peninsular Ranges Batholith.

#### ***Biology***

The Proposed Project area passes through several urban areas containing no native vegetation. However, within the undeveloped portions of the Proposed Project area, a series of major plant communities is present, including coastal sage scrub, riparian, grasslands, oaks, and chaparral. A wide range of small mammals, birds, and reptiles were indigenous faunal resources of the vicinity of the Proposed Project area. Some of the mammals that occur in the area include several species of mice and bats, desert cottontail, California ground squirrel, desert woodrat, bobcat, coyote, and mule deer, among others. Geese, ducks, and other waterfowl are also found in the region. In prehistoric times, the area would have also supported a wide range of terrestrial resources, such as pronghorn, and perhaps even black bears.

## *Historic Overview*

### *Prehistoric Background*

The following describes a brief prehistory of the Proposed Project area within northern and southern San Diego County.

#### Terminal Pleistocene/Early Holocene Period (ca. 12,000 – 6000 Before Christ [B.C.]

The earliest chronologically distinctive archaeological pattern from the Terminal Pleistocene/Early Holocene period recognized in most of North America is the Clovis pattern. Dated to around 11,500 B.C., Clovis assemblages are distinguished by fluted projectile points and other large bifaces, as well as extinct large mammal remains. At least three isolated fluted points have been reported within San Diego County, but their occurrence is very sparse and their dating and contexts are uncertain. The most widely recognized archaeological pattern within this period is termed San Dieguito and has been dated from at least as early as 8500 B.C. to possibly 6000 B.C. The San Dieguito pattern was originally defined near the central coast of San Diego County, and its presence has been reported through extensive areas to the east, but few traces are recognized on or near the northern coast of San Diego County. Proposed characteristics to distinguish San Dieguito flaked lithic assemblages include large projectile points (e.g., Lake Mojave, Silver Lake, and other less diagnostic forms), bifaces, crescents, scraper planes, scrapers, hammers, and choppers. The San Dieguito technology involved well-controlled percussion flaking and some pressure flaking.

A vigorous debate has continued for several decades concerning the relationship between the San Dieguito pattern and the La Jolla pattern that succeeded it and that may have also been contemporaneous with or even antecedent to it. The initial view was that San Dieguito and La Jolla represented the products of distinct ethnic groups and/or cultural traditions. However, as early Holocene radiocarbon dates have been obtained for site components with apparent La Jolla characteristics (e.g., shell middens, milling tools, and simple cobble-based flaked lithic technology), an alternative interpretation has gained some favor, which is that the San Dieguito pattern represented a functional pose related in particular to the production of bifaces, and that it represents activities by the same people who were responsible for the La Jolla pattern.

#### Middle/Late Holocene Period (ca. 6000 B.C. – Anno Domini [A.D.] 800)

Archaeological evidence from the Middle/Late Holocene period in the San Diego region has been characterized as belonging to the Archaic stage, Millingstone horizon, Encinitas tradition, or La Jolla and Pauma patterns. Adaptations during this period apparently emphasized gathering, in particular the harvesting of hard plant seeds, as well as small-game hunting. Distinctive characteristics of the La Jolla pattern include extensive shell middens, portable groundstone metates and manos, crudely flaked cobble tools, occasional large expanding-stemmed projectile points (Pinto and Elko forms), and flexed human burials. The inland Pauma pattern has variously been interpreted as a separate culture that was broadly similar to the contemporaneous La Jolla pattern on the coast or as a different functional pose of the same culture.

Investigators have called attention to the apparent stability and conservatism of the La Jolla pattern throughout this long period, as contrasted with less conservative patterns observed

elsewhere in coastal southern California. However, distinct chronological phases within the pattern have also been suggested, based on changes in the flaked lithic and groundstone technologies, the shellfish species targeted, and burial practices.

#### Late Prehistoric Period (ca. A.D. 800 – 1769)

A Late Prehistoric period in San Diego County has been distinguished, primarily through the archaeological remains of three major innovations: the use of small projectile points (Desert Side-notched, Cottonwood triangular, and Dos Cabezas forms), associated with the adoption of the bow and arrow in place of the atlatl as a primary hunting tool and weapon; brownware pottery, presumably supplementing the continued use of basketry and other containers; and the practice of human cremation in place of inhumation. Uncertainty remains concerning the exact timing of these innovations, and whether they appeared simultaneously or sequentially. Labels applied to the archaeological remains of this period include San Luis Rey, Palomar, and Peninsular in northern San Diego County and Yuman, Cuyamaca, Patayan, and Hakataya in southern San Diego County.

Within northern San Diego County, archaeological remains have generally been associated with the ethnohistorically known Luiseño, Cupeño, and Cahuilla and have been seen as perhaps marking the initial local appearance of those groups in a migration from the north. Traits characterizing the Late Prehistoric period include greater reliance on acorns as an abundant but labor-expensive food resource, a greater emphasis on hunting of both large and small game (particularly deer and rabbits), a greater amount of interregional exchange (seen notably in more use of obsidian), more elaboration of nonutilitarian culture (manifested in more frequent use of shell beads, decorated pottery, and rock art), and possibly denser regional populations. Settlement may have become more sedentary during this period, as compared with the preceding period.

Within southern San Diego County, archaeological remains have generally been associated with the ethnohistorically known Kumeyaay (i.e., Diegueño, Tipai, and Ipai) and have been seen as perhaps marking the initial local appearance of that group in a migration from the lower Colorado River region. Traits characterizing the Late Prehistoric period include a shift toward greater use of inland rather than coastal settlement locations, greater reliance on acorns as an abundant but labor-expensive food resource, a greater emphasis on hunting of both large and small game (particularly deer and rabbits), a greater amount of interregional exchange (seen notably in more use of obsidian), more elaboration of nonutilitarian culture (manifested in more frequent use of shell beads, decorated pottery and the distinctive Rancho Bernardo and La Rumorosa rock art styles), and possibly denser regional populations. Whether settlement became more or less sedentary during this period, as compared with the preceding period, is uncertain.

#### *Ethnographic Overview*

The Proposed Project falls within the ethnographic boundaries of the closely related Luiseño, Cupeño, and Cahuilla speakers of northern San Diego County, and of the Yuman speakers of central and southern San Diego County, variously referred to as Kumeyaay, Diegueño, Tipai, and Ipai. Because prehistoric people migrated across geographic areas seasonally, the following ethnographic discussion covers a broad area surrounding the Proposed Project.

### Northern San Diego County

The Luiseño territory extended from Agua Hedionda Lagoon, Escondido, and Lake Henshaw northward into southern Orange and Riverside counties. The Cupeño occupied a relatively small territory situated east of the Proposed Project in the vicinity of Warner's Ranch. The Cahuilla territory, which includes extensive lands north of the Proposed Project, extended east from Luiseño territory into the Colorado Desert and north as far as San Geronimo Pass. Linguistic evidence links Luiseño, Cupeño, and Cahuilla with the Uto-Aztecan family of languages. A hierarchy of relationships within that family likely mirrors a sequence of separations reflecting territorial expansions or migrations, leading the linguistic ancestors of the Luiseño, Cupeño, and Cahuilla from a still-debated Uto-Aztecan homeland to a northern Uto-Aztecan base somewhere in western North America and ultimately south to their ethnohistoric homes. Splits within the ancestral family included the differentiation of Takic (also termed Southern California Shoshonean), the separation of Luiseño from Cahuilla-Cupeño, and the separation of Cahuilla and Cupeño.

The Luiseño, Cupeño, and Cahuilla inhabited a diverse environment that included littoral, valley, foothill, mountain, and desert resource zones. Because of the early incorporation of coastal Luiseño into the mission system, most of the available 20th-century ethnographic information relates to inland groups that lived in the Peninsular Ranges and the Colorado Desert. Acorns were a key resource for inland groups, but a wide range of other mineral, plant, and animal resources were exploited. Some degree of residential mobility seems to have been practiced; one classic fission/fusion pattern involved annual seasonal shifts between consolidated winter and spring settlements in the upper San Luis Rey River valley and smaller, dispersed groups living on Palomar Mountain in the summer and fall. The fundamental Luiseño social units above the family were patrilineal and patrilocal clans, and the latter ideally coincided with the winter-spring village communities. The Cahuilla and Cupeño also had patrilineal Coyote and Wildcat moieties, serving primarily to impose exogamous marriage and to conduct ceremonies. Hereditary leaders performed ceremonial, advisory, and diplomatic functions, rather than judicial, redistributive, or military ones. There seems to have been no national level of political unity among the Luiseño or Cahuilla, and perhaps little sense of commonality within the language group.

Luiseño, Cahuilla, and Cupeño material culture was effective, but it was not highly elaborated. Structures included houses with excavated floors, ramadas, sweathouses, ceremonial enclosures, and acorn granaries. Hunting equipment included bows and arrows, curved throwing sticks, nets, and snares. Processing and storage equipment included a variety of flaked stone tools, milling implements, ceramic vessels, and baskets.

Nonutilitarian culture was not neglected. A range of community ceremonies were performed, with particular emphases placed on marking individuals' coming of age and on death and mourning. Oral literature included, in particular, an elaborate creation myth that was shared with the Takic-speaking Serrano, as well as with Yuman speakers.

### Central and Southern San Diego County

Kumeyaay territory extended from south of Agua Hedionda Lagoon, Escondido, and Lake Henshaw to some distance south of Ensenada in northern Baja California, and east nearly as far as the lower Colorado River. Linguistic evidence suggests that the Yuman-Cochimí families of languages may have been affiliated with a widespread Hokan phylum, represented by scattered

languages and families around the periphery of California and extending south into Mexico, and probably dating back at least as far as the early Holocene. Subsequent separations within the Yuman-Cochimí group may represent territorial expansions or migrations. The Kumeyaay inhabited a diverse environment that included littoral, valley, foothill, mountain, and desert resource zones. Because of the early incorporation of coastal Kumeyaay into the mission system, most of the available ethnographic information relates to inland groups that lived in the Peninsular Ranges or the Colorado Desert. There may have been considerable variability among the Kumeyaay in settlement and subsistence strategies and in social organization.

Acorns were a key resource, but a wide range of other mineral, plant, and animal resources were exploited. Pre-contact practices of land management and agriculture west of the Colorado Desert have been suggested but not confirmed. Some degree of residential mobility seems to have been practiced, although its extent and nature (e.g., within patterns of community fission and fusion) may have varied considerably among different communities and settings. The fundamental Kumeyaay social unit above the family was the *šimul* (patrilineage) and the residential community or band, to the extent that those two units were not identical. Leaders performed ceremonial, advisory, and diplomatic functions, rather than judicial, redistributive, or military ones. There seems to have been no national level of political unity and perhaps little sense of commonality within the language group.

Kumeyaay material culture was effective, but it was not highly elaborated. Structures included houses with excavated floors, ramadas, sweathouses, ceremonial enclosures, and acorn granaries. Hunting equipment included bows and arrows, curved throwing sticks, nets, and snares. Processing and storage equipment included a variety of flaked stone tools, milling implements, ceramic vessels, and baskets.

Nonutilitarian culture was not neglected. A range of community ceremonies were performed, with particular emphases placed on marking individuals' coming of age and on death and mourning. Oral literature included, in particular, an elaborate creation myth that was shared with other Yuman groups, as well as with Takic speakers (Luiseño, Cupeño, Cahuilla, and Serrano) to the north.

### *Historic Background*

European exploration of the San Diego area began in 1542 with the arrival of a maritime expedition under Juan Rodríguez Cabrillo, followed by a similar reconnaissance in 1602 by Sebastián Vizcaíno. It is possible that additional brief, unrecorded contacts with the crews of the Manila galleons may have occurred during the following century and a half, and that other influences, such as an awareness of alien technologies or the introduction of diseases, may have reached the region overland from earlier outposts of the Spanish empire in Baja California or Sonora.

The historic period began in 1769, when multiple seaborne and overland expeditions under the leadership of the soldier Gaspar de Portolá, and the Franciscan missionary Junípero Serra reached the region of Baja California and passed northward along the coastal plain to seek Monterey. In that year, a royal presidio and the Mission San Diego de Alcalá were founded, and the incorporation of local Kumeyaay into the mission system began. Shortly after the mission had been moved a short distance to the east from the presidio, a Kumeyaay uprising in 1775

resulted in the burning of the mission and the killing of one of its Franciscan missionaries. However, the uprising was soon suppressed. Additional missions were founded among the Luiseño/Juaneño at San Juan Capistrano in 1776 and San Luis Rey de Francia in 1798. An asistencia or satellite mission was established for San Luis Rey at Pala in 1816 and for Mission San Diego de Alcalá at Santa Ysabel in 1818.

As Spanish attention was consumed by the Napoleonic wars in Europe, California and its government and missions were increasingly left to their own devices. In 1821, Mexico consummated its independence from Spain, and the region became more open to outside visitors and influences. The loyalty to Mexico of the European Franciscans was considered to be in doubt, and private secular interests clamored for a greater share of the region's resources. The missions were secularized by act of the Mexican Congress in 1833. Native Americans released from the missions at San Diego, San Luis Rey, and San Juan Capistrano returned to their native villages, moved east to areas lying beyond Mexican control, or sought work on ranches or in the towns of San Diego and Los Angeles. Numerous large land grants were issued to private owners during the Mexican period, including Janal, Jamacha, Jamul, El Cajon, Cañada de San Vicente, San Bernardo, Santa María, Cuyamaca, Santa Ysabel, and San Felipe in inland southern and central San Diego County and El Rincon del Diablo, Monserrate, Guejito y Cañada de Palomia, Cuca, Pauma, Valle de San José, and San José del Valle in inland northern San Diego County.

The conquest and annexation of California by the U.S. in the Mexican-American War between 1846 and 1848 ushered in many more changes. Faced with debts and difficulties in confirming land grants, many California families lost their lands to outsiders. Cultural patterns that were brought by immigrants from the eastern U.S. gradually supplanted old California customs. Native American reservations were established at Pala, Mission Reserve, Pauma-Yuima, Los Coyotes, La Jolla Rincon, and San Pasqual in northern San Diego County and at Mesa Grando, Santa Ysabel, Inaja, Cosmit, Barona, Capitan Grande, Viejas, Cuyapaipe, Sycuan, Manzanita, La Posta, and Campo in central and southern San Diego County.

The region experienced cycles of economic and demographic booms and busts, with notable periods of growth in the mid-1880s, during World Wars I and II, and on a more sustained basis throughout the postwar decades. Aspects of development included the creation of transportation networks based on port facilities, railroads, highways, and airports; more elaborate systems of water supply and flood control; grazing livestock and growing a changing array of crops; supporting military facilities, including the extensive Camp Pendleton facility established in 1942; limited amounts of manufacturing; and accommodating visitors and retirees. After false starts, San Diego converted itself to a substantial city, and then into a metropolis. In northern San Diego County, Escondido was incorporated as a city in 1888. Unincorporated north county communities include Fallbrook, Bonsall, Valley Center, Pala, and Pauma Valley. In central and southern San Diego County, several cities were incorporated, including El Cajon (1912), La Mesa (1912), Lemon Grove (1977), Santee (1980), and Poway (1980). Notable unincorporated communities include Spring Valley, Lakeside, Alpine, and Ramona.

The Proposed Project area transverse the major historic transportation corridor of Old Highway 395 and Interstate 15 (I-15), running in a north-south direction across San Diego County. Highway 395 was constructed in 1939, and generally followed old trails and stagecoach routes already present stretching from the Temecula Valley to San Diego. Generally, Highway 395

stretched across the Western United States from Mexico to Canada. In 1949, it was realigned within the Proposed Project area in order to straighten many of the road's sharp curves.

On June 29, 1956 President Dwight Eisenhower signed the Federal-Aid Highway Act of 1956. The bill created the National System of Interstate and Defense Highways, which allowed for the creation of approximately 41,000 miles of highway. Prior to the Federal-Aid Highway Act, what is now I-15 was a combination of State Routes and city roadways. In 1968, the section of the current I-15 between the I-5 interchange in the south and the I-10 interchange in the north was upgraded from Highway 395 to I-15. Construction on this segment of I-15 included many of the current over- and under- passes, interstate level on- and off- ramps, and signage. Since 1968, additional upgrades and expansions have further developed the I-15 corridor.

A brief historic overview of select areas crossed by the Proposed Project within San Diego County, including the cities of Escondido and Poway, MCAS Miramar, Lake Hodges, and Mule Hill, is provided in the following subsections.

### City of Escondido

Development within the City of Escondido began circa 1886, as El Rincon del Diablo Rancho was opened to settlement. The Escondido Land and Town Company acquired the El Rincon del Diablo land grant and laid out the town site and agricultural lands. In the same year wells were dug by the Escondido Irrigation District to provide irrigation for the community. The City of Escondido, with a population of 249, was incorporated in 1888 and a city council, clerk, treasurer and marshal were elected.

The City of Escondido developed as a citrus-growing community during a period of agricultural boom in San Diego County. Grapes, hay, and grain were also plentiful early crops. In addition, the City of Escondido is attributed to have planted the first avocado tree in San Diego County. By 1890, the City of Escondido had grown to 541 people. Agricultural crops within Escondido centered on avocado and other sub-tropical fruits. In the 1930s, the primary exports from San Diego County were citrus, poultry, and dairy, with the City of Escondido supplying almost half of the County's exports. By 1936, the City of Escondido led San Diego County in citrus production and was the foremost producer of avocados and citrus in the state. The City of Escondido transitioned from a rural town of 755 in 1900 to a growing agricultural-based city of 3,421 in 1930. In 1950, Highway 395 linked the City of Escondido to the City of San Diego, spurring the growth of many numerous housing developments.

### City of Poway

By the 1860s, the valley of Poway was beginning to become developed with farms, orchards, and vineyards, and by 1887, approximately 800 people lived in what would become the City of Poway. By the late 1880s, the community included a church, school, hotel, and general store. Both the San Diego Central and the Southern Pacific Railroads proposed the development of railroad lines to the City of Poway area; however, both railroad plans failed. The failed railroad and a drought in the late 1800s caused a small real estate bust in the valley.

Agricultural use of the valley continued through the 1900s, and Poway became famous for their peaches and vineyards as well as grain and alfalfa. Through the first half of the 1900s, the

community of Poway remained an agricultural area with a relatively small population. The first housing subdivision did not appear in the valley until the late 1950s. In 1970, Lake Poway was constructed as a reservoir and energy source for the community. Residential and commercial development within the community continued to grow, displacing much of the agriculture, and in 1980 it was incorporated a city.

### MCAS Miramar

The area encompassing MCAS Miramar was first developed as two small communities: Linda Vista in 1886 and Miramar in 1890. Both early communities centered on farming, but were hampered by a lack of water. Military development in the area displaced most of the communities' residents by the 1920s.

Camp Kearny, an Army National Guard infantry training center, was located on 8,000 acres within the present day MCAS Miramar. The camp began in May of 1917 and was designed to accommodate 40,000 men, and its facilities comprised 650 buildings including the base hospital complex, a warehouse district and a remount station designed to care for 10,000 cavalry horses and mules. Though an airfield had not been formally established, the first aviation exercise took place in 1918, when an Army aircraft landed on the Camp's parade ground. The Camp was officially closed and dismantled in 1920.

In 1934, the Marine Corps rented 19,000 acres east of Camp Kearny to use for artillery, anti-aircraft, and machine gun training. The Camp consisted of a collection of semi-permanent buildings that intermittently housed two battalions of Marines. An additional 19,000 acres was acquired in May of 1941 and was named Camp Elliott. Over the years, further land was acquired, expanding the Camp to approximately 26,000 acres. In an effort to consolidate, all Marine training at Camp Elliot was transferred to Camp Pendleton in 1944. With this, the Navy took control of the base and for the remainder of World War II, used it as a training and distribution facility until 1946.

Following the war, the property served a variety of temporary military uses and in 1960, the Camp was decommissioned and divided between Naval Air Station Miramar and the Air Force for the creation of the Atlas Missile test facility. Throughout the second half of the 20th century, the area was used as a naval auxiliary air station, and a Marine Corps air depot. In 1997, the base became known as MCAS Miramar. It currently is a 24,000-acre installation that supports the operations of the Third Marine Air Wing, whose mission is to provide combat-ready, expeditionary aviation force capable of short-notice, world-wide deployment to Marine Air Ground Task Force, fleet and unified commanders.

### Lake Hodges

Lake Hodges, a man made reservoir, was created in 1918 when the construction of the 130-foot-high Hodges Dam over the San Dieguito River was completed. Lake Hodges has a capacity of up to 30,250 acre-feet of water and is fed solely by rainwater within the San Dieguito watershed.

The Lake Hodges Dam and the Lake Hodges reservoir were constructed by the San Dieguito Mutual Water Company and by the Santa Fe Land Improvement Company, and financed by the Santa Fe Railroad in order to promote growth in the area by providing a reliable water supply.

The dam and reservoir were named after William Hodges, who was the current vice president of the Santa Fe Railroad in 1918. The water held in the reservoir was used by the City of San Diego and was transferred from Lake Hodges by flume to the San Dieguito Reservoir. In 1925, the City of San Diego purchased Lake Hodges and the Lake Hodges Dam. Currently, Lake Hodges is in use as a reservoir and provides drinking water to nearby communities.

### Mule Hill

Mule Hill, which is near the border of the City of Escondido and the City of San Diego at Lake Hodges, was the location of the overnight camp of the American forces lead by General Stephen Watts Kearny after the Battle of San Pasqual during the Mexican-American War in 1846. After the Battle of San Pasqual, which took place several miles away, the American forces traveled to Mule Hill to camp overnight. They were followed by the Californios and were forced to defend their position. They quickly ran out of food and supplies, resorting to eating their mules, which gave Mule Hill its name. Two soldiers were able to escape and summon help from San Diego.

Mule Hill Trail is a portion of the San Dieguito River Park's Coast to Crest Trail system, which extends from the ocean at the City of Del Mar to Volcan Mountain near the community of Julian.

### Town of Bernardo

The town of Bernardo, which was founded in 1872, was located on the banks of the San Dieguito River and west of the current Historic Inland Trail, adjacent and to the west of the Proposed Project alignment. The town site was originally part of Rancho San Bernardo. After the deaths of the rancho owners, John and Maria Snook, in 1852 and 1862 respectively, their heirs sold the rancho to James McCoy. McCoy, who held a large amount of land in San Diego at the time, further subdivided the land into smaller ranches. By 1872, there were enough residents that a tri-weekly mail delivery service was established in the area. The post office, which opened in December of 1872, was given the name Bernardo and was located in the first postmaster's, Zenas Sikes, farmhouse. Subsequently, Sikes sold two acres of his ranch to Patrick Graham, who opened a general store on the land. The post office was moved from Sikes's house to the general store. Additional business, including a blacksmith shop, quickly opened in the vicinity of the general store. The population of farmers and ranchers within the area grew, further developing the town of Bernardo. The small town grew for several years, but its growth slowed as the City of Escondido, located a few miles north of the town, flourished and became the epicenter of northern San Diego County. The construction of the Lake Hodges Dam and Reservoir in 1919 ended the development of the town of Bernardo as access to the town became limited.

### *Paleontological Overview*

Paleontological resources are found within geologic rock units/formations. In order to understand and assess the significance of paleontological resources in a given area, an understanding of the geologic history of the rock units/formations in that area is critical. The Proposed Project alignment straddles the boundary between the coastal plain of San Diego County and the uplands of the Peninsular Ranges. Along the coastal plain, the Mesozoic basement rocks of the Jurassic-Cretaceous-age Santiago Peak Volcanics (Mesozoic metasedimentary and metavolcanic rocks) and the Cretaceous-age Peninsular Ranges Batholith

(Cretaceous intrusive igneous rocks) are nonconformably overlain by sedimentary rocks of Late Cretaceous, Eocene, Oligocene, Miocene, Pliocene, and Pleistocene age.

The Eocene rock units/formations accumulated in the San Diego Embayment, which is a broad depositional basin. A large river system occupied the eastern portion of the embayment, while to the west, nearshore marine paleoenvironments mixed with alluvial and fluvial paleoenvironments in a river-dominated delta. Farther west were continental shelf and slope paleoenvironments. As such, the Eocene rock units/formations record a series of intertonguing marine and terrestrial paleoenvironments deposited over a relatively short lateral distance (west to east) during a period of approximately 10 million years (50 to 40 million years ago). The Eocene rock units have been divided into the early middle Eocene La Jolla Group (including the Mount Soledad Formation, Delmar Formation, Torrey Sandstone, Ardath Shale, Scripps Formation, and Friars Formation) and late middle Eocene Poway Group (including the Stadium Conglomerate, Mission Valley Formation, and Pomerado Conglomerate).

The Eocene rock units/formations directly underlying the Proposed Project include the Friars Formation and overlying Stadium Conglomerate, which are predominantly nonmarine, and accumulated in an alluvial fan system adjacent to the ancient shoreline. The overlying Mission Valley Formation and Torrey Sandstone also underlie the Proposed Project, and consist of both marine and nonmarine sediments that were deposited as sea level rose, and the alluvial fan system migrated eastward. Following this was a period of erosion and/or non-deposition that lasted until the Pleistocene, approximately 40 million years later.

During the Pleistocene, dramatic changes in global sea level, combined with regional uplift, created the flat mesas and deep valleys that are characteristic of the San Diego region today. During periods of high sea level, marine transgressions (coastal flooding) led to wave-erosion of planar marine abrasion platforms (ancient seafloors) into the soft Eocene rocks, and subsequent deposition of shallow marine and nonmarine sediments by prograding deltas from the east (the Lindavista Formation). During periods of low sea level, marine regressions resulted in the carving out of deep river valleys (e.g., Mission Valley and San Luis Rey River Valley) by the prehistoric rivers of San Diego County. Subsequent marine transgressions caused flooding of the ancient river valleys and the formation of estuaries and small bays, which were eventually filled in by alluvium transported from the east by local rivers and streams. The repetition of sea level rise and fall, combined with localized uplift, led to the formation of the elevated marine terraces (mesas) observed near MCAS Miramar, and patches of old alluvial floodplain deposits along the alignment.

A final marine transgression at the beginning of the Holocene followed by stabilization of sea level during the late Holocene led to the formation of alluvial floodplains observed in the inland portions of the river valleys underlying the Proposed Project.

## **Cultural Resources in the Proposed Project Area**

### ***Records Search Results***

The results of the records search show that there are 571 previously recorded cultural resources within the one-mile record search radius. Thirty-four previously recorded cultural resources are located within the survey corridor, of which 21 are located within the APE and 13 are located outside the APE, but within the survey corridor. A summary of the previously recorded cultural

resources is located in Appendix B – Table B2 of Attachment 4.5-A: Cultural Resources Technical Report (Confidential). The 34 previously recorded cultural resources within the survey corridor include the following:

- *Previously Recorded within the APE:* In total, 21 cultural resources have been previously recorded within the APE. The cultural resources within the APE include:
  - two historic trash scatter (P-37-014275, CA-SDI-12920)
  - three buildings remains sites (P-37-019199, CA-SDI-9124, CA-SDI-12919);
  - one historic flume (P-37-030889);
  - abandoned sections of Old Highway 395 (P-37-033557);
  - gas line 1600 (CA-TL1600-S-1);
  - 10 prehistoric lithic scatters, bedrock milling sites, and habitation areas (CA-SDI-5072, CA-SDI-6001, CA-SDI-6083, CA-SDI-6722, CA-SDI-7313, CA-SDI-7315, CA-SDI-10917, CA-SDI-10918, CA-SDI-11467, and CA-SDI-15368);
  - one mural (CA-SDI-15369); and
  - two multicomponent sites (CA-SDI-11466 and CA-SDI-4634).
- *Previously Recorded within the Survey Corridor:* Thirteen additional cultural resources have been recorded within the survey corridor, but outside of the APE. These cultural resources include:
  - 11 prehistoric lithic scatters, bedrock milling sites, and habitation areas (CA-SDI-7, CA-SDI-577, CA-SDI-585, CA-SDI-592, CA-SDI-4556, CA-SDI-4560, CA-SDI-4561, CA-SDI-4806, CA-SDI-5211, CA-SDI-10169, CA-SDI-12587);
  - artifact reburial site (CA-SDI-7836); and
  - one multicomponent sites containing both prehistoric artifacts and historic artifacts (CA-SDI-7310).

In addition, results of the records search show that 955 previously recorded historic addresses are located within the one-mile record search radius. A summary of the previously recorded historic addresses is located in Appendix B – Table B3 of Attachment 4.5-A: Cultural Resources Technical Report (Confidential). Six historic addresses have been previously recorded within the survey corridor and are described as follows.

- 510 W. 2nd Avenue, Escondido was recorded as P-37-17741 in 1983 by Marsh. The single-family house is a board-and-batten cottage constructed around 1925. The building

was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).

- 509 W. 2nd Avenue, Escondido was recorded as P-37-17740 in 1983 by Marsh. The single-family house is a board-and-batten cottage constructed around 1925. The building was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).
- 502 W. 11th Avenue, Escondido was recorded as P-37-18638 in 1983 by Marsh. The single-family house is a California bungalow constructed around 1935. The building was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).
- 733 S. Pine Street, Escondido was recorded as a craftsman single-family house constructed around 1925. The building was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).
- 145 W. Felicita Avenue, Escondido was recorded as a stucco cottage single-family house constructed around 1925. The building was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).
- 123 W. Felicita Avenue, Escondido was recorded as an altered craftsman single-family house constructed around 1905. The building was given an NRHP status code of 4D (contributor to a fully documented district that may become eligible).

The Proposed Project also crosses Mule Hill Trail, which was named after Mule Hill, the location of the overnight camp of the American forces lead by General Stephen Watts Kearny after the Battle of San Pasqual during the Mexican-American War in 1846. In the vicinity of the Proposed Project, Mule Hill is recorded twice as resource CA-SDI-12649 and as resource CA-SDI-18585<sup>2</sup>. However, neither of these recorded resources are within the survey corridor. In addition, resources CA-CA-SDI-15369 and CA-CA-SDI-11466 both contained painted signs on granitic boulders that may have been associated with the historic town site of Bernardo. No other evidence of the town site of Bernardo was identified within the survey corridor.

### ***Native American Contact and Tribal Consultation***

A record search request was submitted to the NAHC on April 9, 2015, for a search of its Sacred Lands File of Native American cultural resources and Traditional Cultural Properties. On April 22, 2015, the NAHC responded that the search indicated the potential for Native American cultural resources to be impacted by the Proposed Project within the Valley Center Quadrangle. The NAHC also provided a Native American Contact List from which to request additional information. All individuals and organizations on the Native American Contact List were contacted by letter describing the Proposed Project with a detailed map on April 23, 2015. Recipients were requested

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<sup>2</sup> CA-SDI-18585 has been recorded as the location of Mule Hill by the City of San Diego HRB and as California Historic Landmark #45.

to reply with any information they are able to share about Native American resources that might be adversely affected by the Proposed Project. The following recipients were contacted:

1. Pechanga Band of Mission Indians,
2. Rincon Band of Mission Indians,
3. Soboba Band of Mission Indians,
4. Kwaaymii Laguna Band of Mission Indians,
5. Inaja Band of Mission Indians,
6. Kumeyaay Cultural Repatriation Committee,
7. Pauma Valley Band of Luiseno Indians,
8. Pauma and Yuima, Barona Group of the Capitan Grande,
9. Ewiiapaayp Tribal Office,
10. San Pasqual Band of Mission Indians,
11. Sycuan Band of the Kumeyaay Nation,
12. Viejas Band of Kumeyaay Indians,
13. Kumeyaay Cultural Historic Committee,
14. Pala Band of Mission Indians, and
15. Pauma and Yuima Reservation.

On April 29, 2015, Shasta Gaughen, the Tribal Historic Preservation Officer for the Pala Band of Mission Indians (Pala), responded that the Proposed Project is within Pala's Traditional Use Area. Pala requested to receive information about the Proposed Project including updates, reports, newly discovered sites, and Proposed Project design changes. Pala recommends that archaeological monitoring take place for the Proposed Project as it is in the proximity of known cultural and historical resources.

On May 4, 2015 the Cultural Clerk for the Pauma Valley Band of Luiseño Indians responded that they believe there are sites within the Proposed Project. The Pauma Valley Band of Luiseño Indians requested an updated cultural report for the Proposed Project, and that the Proposed Project be monitored by an archaeologist and Native American.

On May 7, 2015 the Viejas Band of Kumeyaay Indians (Viejas) responded that the Proposed contains many sacred sites to the Kumeyaay people. They requested that these sacred sites be avoided with adequate buffer zones with a map of these areas. Additionally, Viejas requested advanced notice of any plans on mitigation measures; active participation in the development of said mitigation measures; all NEPA, CEQA, NAGPRA, and AB 52 laws be followed; that qualified Kumeyaay cultural monitors are on site at all time; frequent updates to the tribes and a final report on findings; and immediate notification of any changes or inadvertent discoveries.

On May 26, Joseph Ontiveros, Cultural Resource Director for the Soboba Band of Luiseño Indians responded via letter that the Soboba Band does not have any specific concerns regarding the Proposed Project, but requested that the appropriate consultation continue. The Soboba Band will defer to other tribes closer to the Proposed Project area, but requested that approved Native American monitors be present during ground disturbance.

On June 1, Rose Duro, Chairman of the Rincon Band of Luiseño Indians (Rincon), responded via letter that the Proposed Project is within the Aboriginal Territory of the Luiseño people, is within

Rincon's historic boundaries, and is within Rincon's Traditional Use Area. Rincon requested continued consultation and the opportunity for the Rincon Cultural Resources Department to be afforded the opportunity to provide Native American monitors for the Proposed Project.

On June 1, 2015, the Pechanga Band of Luiseño Indians (Pechanga) requested via phone call to receive detailed shapefiles of the Proposed Project. Pechanga stated that the Proposed Project is within the Luiseño Ancestral Origin Landscape Traditional Cultural Property. The Applicants, ASM, and Pechanga met on June 24, 2015 to discuss the beginning of the consultation process and to identify areas of concern. Coordination will continue and further details regarding the meeting are provided in Attachment 4.5-A: Cultural Resources Technical Report (Confidential).

To date, no additional responses have been received. Correspondence is ongoing and further detail, along with the responses received to date are provided in Attachment 4.5-A: Cultural Resources Technical Report (Confidential).

### ***Archaeological Field Investigation Results***

#### *Within the Survey Corridor*

Of the 34 cultural resources previously recorded within the survey corridor, 16 were relocated during the April 2015 field investigation by ASM. The remaining 18 previously recorded resources were not discernable within the survey corridor. Three of the resources that were not identified in the April 2015 field investigation—SDI-4634, P-37-014275, and SDI-9124—are located on MCAS Miramar. The Proposed Project survey corridor on MCAS Miramar was not surveyed as past survey results for the area were available. The most recent cultural resource survey conducted on MCAS Miramar identified P-37-014275 and SDI-9124 and evaluated both sites as not eligible for the NRHP. SDI-4634 was not identified in that survey. Sites that were not identified within the Proposed Project survey corridor outside of MCAS Miramar during the April 2015 field investigation were either destroyed since their initial recordation; removed from the surface, and possibly still present subsurface; obscured by dense vegetation or pavement; and/or incorrectly mapped, and are actually located outside of the survey corridor.

Within the survey corridor, eight cultural resources consisting of three isolates and five sites were newly recorded during the field investigation. In total, 42 cultural resources have been recorded within the survey corridor, as 34 previously recorded cultural resources were identified in the records search. All resources identified within the survey corridor are listed in updated California DPR 523 forms included in Confidential Appendix D of Attachment 4.5 A: Cultural Resources Technical Report. The locations of the resources within the survey corridor are depicted on aerial photographs, included in Confidential Appendix A of Attachment 4.5-A: Cultural Resources Technical Report (Confidential).

#### *Within the APE*

Three of the eight sites newly recorded during the field investigation are located within the APE. A total of 24 resources identified in the field investigation and records search are located within the Proposed Project's APE. These are listed in Table 4.5-1: Cultural Resources within the APE. Five of the resources within the APE have been previously evaluated for eligibility to the NRHP, the CRHR, the Local Register, or the RPO. Three of the previously evaluated resources (P-37-

019199, P-37-014275, and SDI-9124) were recommended not eligible to the NRHP or the CRHR. Two of the previously evaluated resources (P-37-030889 and SDI-5072) have been evaluated and recommended eligible for listing on the NRHP. One resource (3602-I-2) is ineligible for listing on the NRHP. The remaining resources have not been evaluated to the NRHP, the CRHR, the Local Register, or the RPO. One of the newly recorded sites within the APE is ineligible for listing.

SDI-5072, one of the two eligible resources within the APE, is a prehistoric archaeological site that was not identified on the ground surface during the April 2015 field investigation. SDI-5072 was first recorded in 1976 and in 1977 as a prehistoric bedrock milling site and artifact scatter. Artifacts included flakes, pestles, potsherds, shell, a shell bead, a metate, and bone. The site was presumed to be disturbed by construction of Highway 395. The site record was updated in 1980 as a habitation site with special use areas for milling stations, possible ceremonial features, milling features, rock wall structures, and many artifacts. It was also noted that the site was determined eligible for the NRHP on November 11, 1978. The site record was again updated in 1984, who reported that SDI-5072 was part of a village. Within their survey area, they located three manos, multiple flakes, burned mammal bone, and shell. The site record was last updated in 2000, and it was reported that the village site had been bisected by Highway 395, but it is possible that undisturbed deposits are located under the road bed.

P-37-030889, the second eligible resource within the APE, was recorded in 2009 as the Vista Irrigation District Bench Flumes. The flumes were constructed as aboveground gunite canals with a domed gunite cover that run along various ridges and are connected by steel-and-concrete pipe siphons that convey the water across canyons and valleys. The majority of the flumes are underground. The flumes were recommended eligible for listing on the NRHP under Criterion A for their association with the area's development and under Criterion C for their unique design and method of construction. The flumes were identified during the April 2015 field investigation within the APE and the survey corridor in the same condition as their previous recordation.

**Table 4.5-1: Cultural Resources within the APE**

Site Number	Site Type	Site Description	Relocated/Newly Recorded? <sup>3</sup>	Impacted by the Proposed Project?	NRHP, CRHR, or Local Register Eligibility
P-37-014275	Historic	Military property	Yes (MCAS Miramar)	Unknown	Recommended Not Eligible
P-37-019199	Historic	Structures/walls	No	No (Avoidance Possible)	Recommended Not Eligible
P-37-030889	Historic	Vista Irrigation District Bench Flumes	Yes	No (Avoidance Possible)	Recommended Eligible
P-37-033557	Historic	Roadbed	Yes	Unknown <sup>4</sup>	Not Evaluated
CA-SDI-4634	Multicomponent	Lithic scatter/Military feature	Not Resurveyed (MCAS Miramar)	Yes	Not Evaluated
CA-SDI-5072	Prehistoric	Bedrock milling site, artifact scatter, and village site	No	Yes	Eligible
CA-SDI-6001	Prehistoric	Bedrock milling site	No	Unknown	Not Evaluated
CA-SDI-6083	Prehistoric	Bedrock milling site and lithic scatter	No	Unknown	Not Evaluated
CA-SDI-6722	Prehistoric	Bedrock milling site	No	Unknown	Not Evaluated
CA-SDI-7313	Prehistoric	Lithic scatter and bedrock milling site	No	Unknown	Not Evaluated
CA-SDI-7315	Prehistoric	Lithic scatter	No	Unknown	Not Evaluated

<sup>3</sup> Relocated indicates that a previously recorded site was located during the April 2015 field investigation.

<sup>4</sup> The Proposed Project's impact on previously recorded resources that were not identified during the April 2015 field investigation are unknown because either the resources were either destroyed since their initial recordation; removed from the surface, and possibly still present subsurface; obscured by dense vegetation or pavement; and/or incorrectly mapped, and are actually located outside of the survey corridor.

Site Number	Site Type	Site Description	Relocated/Newly Recorded? <sup>3</sup>	Impacted by the Proposed Project?	NRHP, CRHR, or Local Register Eligibility
CA-SDI-9124	Historic	Landscaping, trash scatter, and cistern	Not Resurveyed (MCAS Miramar)	No	Recommended Not Eligible
CA-SDI-10917	Prehistoric	Lithic scatter and bedrock milling site; habitation debris	Yes	Unknown	Not Evaluated
CA-SDI-10918	Prehistoric	Lithic scatter and bedrock milling site	Yes	Unknown	Not Evaluated
CA-SDI-11466	Multicomponent	Bedrock milling site and historic road sign	Yes	No (Avoidance Possible)	Not Evaluated
CA-SDI-11467	Prehistoric	Lithic scatter	Yes	Unknown	Not Evaluated
CA-SDI-12919	Historic	Trash scatter; ranch complex	No	Unknown	Not Evaluated
CA-SDI-12920	Historic	trash scatter	No	Unknown	Not Evaluated
CA-SDI-15368	Prehistoric	bedrock milling site and lithic scatter	Yes	No (Avoidance Possible)	Not Evaluated
CA-SDI-15369	Historic	Mural	Yes	No (Avoidance Possible)	Not Evaluated
CA-TL1600-S-1	Historic	Engineering structure (Line 1600)	Yes	Unknown	Not Evaluated
3602-I-2	Prehistoric	Isolate	Yes	No	Ineligible
3602-S-1	Historic	Rock wall	Yes	Unknown	Not Evaluated
3602-S-4	Historic	Foundation	Yes	Unknown	Not Evaluated

Source: ASM 2015

## **Paleontological Resources in the Proposed Project Area**

### ***Records Search Results***

A search of SDNHM's paleontological records revealed a total of 12 documented fossil-collecting sites located within a 0.5-mile radius of the Proposed Project alignment. None of the identified localities are crossed by the Proposed Project. The identified records, grouped by location, include the following:

- Three localities occur within Pleistocene-age nonmarine terrace deposits and yielded a total of 29 fossil specimens. Discovered fossils consist of remains of terrestrial vertebrates, including large mammals (giant bison), small mammals (bat, gopher, rabbit, squirrel, woodrat, and other rodents), lizards, snakes, frogs, terrestrial pulmonate snails, and a variety of leaf impressions.
- Three fossil localities occur within strata of the middle-Eocene-age Pomerado Conglomerate. These localities yielded a total of 680 fossil specimens representing a high diversity of ancient mammals (e.g., rodents, primates, insectivores, hooved ruminant mammals, hooved carnivorous mammals, and marsupials), as well as crocodiles, lizards, turtles, and vascular land plants.
- One fossil locality occurs within strata of the Mission Valley Formation. Fossils recovered from this locality include 17 specimens representing remains of middle Eocene terrestrial and marine vertebrates. Terrestrial vertebrates include soft-shelled turtles, rodents, insectivores, early primates, and hooved mammals, while marine vertebrates included a variety of teeth from chondrichthyans (sharks and rays), and bony fishes.
- Five localities occur within strata of the middle Eocene-age Friars Formation—three within the upper tongue, and two within the middle (conglomerate) tongue. Fossils collected from these localities have produced a spectacular fauna yielding a total of 169 predominantly mammalian fossil specimens. The mammals represent middle Eocene species of ancient horse, camel, primate, rodent, extinct hooved mammals, carnivores, insectivores, bats, gliders, and marsupials. Rare remains of turtles, crocodiles, lizards, snakes, frogs, birds, and land plants are also known.

### ***Paleontological Field Investigation Results***

A new fossil locality was discovered adjacent to the alignment on MCAS Miramar. The new locality occurs within a fluvial channel deposit in the Mission Valley Formation. A few unidentifiable bone fragments belonging to terrestrial mammals were discovered and collected by SDNHM personnel. The preservation of the fluvial channel deposit suggests the potential for discovery of additional fossils, particularly microvertebrate remains (e.g., isolated mammal teeth), in this channel and adjacent channels.

The Proposed Project is underlain by 10 sediment deposit types of varying paleontological potential, which are summarized in Table 4.5-2: Paleontological Potential Evaluation Summary. These formation types are described in detail in Attachment 4.5-B: Paleontological Resources Technical Report (Confidential). Based on the sediment deposit types underlying the Proposed

Project, the paleontological potential by approximate Milepost (MP) or mainline valve (MLV) along the Proposed Project alignment is provided in Table 4.5-3: Paleontological Potential by MP or MLV. A more detailed depiction of the paleontological potential is included as Appendix 2: Paleontological Potential Map of Attachment 4.5-B: Paleontological Resources Technical Report (Confidential).

**Table 4.5-2: Paleontological Potential Evaluation Summary**

<b>Formation</b>	<b>Age</b>	<b>Paleontological Potential</b>
Artificial fill	less than 100 years	No Potential
Landslide deposits	Holocene-Pleistocene	Low Potential
Younger alluvium	Holocene	Low Potential
Old alluvial floodplain deposits	Pleistocene	High Potential (outside Escondido); Low Potential (underlying Escondido)
Lindavista Formation	Pleistocene	Moderate Potential
Mission Valley Formation	Middle Eocene	High Potential
Stadium Conglomerate	Middle Eocene	High Potential
Friars Formation	Middle Eocene	High Potential
Intrusive igneous rocks	Cretaceous	No Potential
Metasedimentary and metavolcanic rocks	Jurassic-Cretaceous	No Potential

Source: DPS 2015

**Table 4.5-3: Paleontological Potential by MP or MLV**

<b>Paleontological Potential</b>	<b>Approximate MP or MLV Location<sup>5</sup></b>
No Potential	MP 0.0 – MP 0.6
	MP 1.0 – MP 1.5
	MP 1.6 – MP 6.1
	MP 8.3 – MP 8.6
	MP 9.3 – MP 12.4
	MP 14.0 – MP 18.1
	MP 18.8 – MP 21.3
	MP 23.3 – MP 23.5
	MP 26.1 – MP 27.9
	MP 30.6 – MP 34.0
	MP 34.6 – MP 35.3
	MP 36.7 – MP 37.5
	Low Potential
MP 1.9	
MP 3.3	
MP 4.4 – MP 5.5	
MP 6.1 – MP 7.0	
MP 8.6 – MP 9.3	
MP 12.4 – MP 14.0	
MP 15.0	
MP 15.2 – MP 15.7	
MP 18.2 – MP 18.8	
MP 21.3 – MP 26.1	
MP 26.7	
MP 31.8	
MP 32.2	
MP 32.5	
MP 32.7	
MP 33.0 – MP 33.7	
MP 35.0 – MP 38.1	

<sup>5</sup> Where more than one paleontological potential is listed for an MP location, one formation type is present intermittently within a broader span of a different formation type.

Paleontological Potential	Approximate MP or MLV Location <sup>5</sup>
Moderate Potential	MP 43.5 – MP 44.2
	MP 44.8
	MP 45.2 – MP 45.5
	MP 45.8
High Potential	MP 0.7 – MP 1.0
	MLV 1
	MP 1.5 – MP 1.6
	MLV 2
	MP 7.0 – MP 8.3
	MLV 7
	MP 27.9 – MP 30.6
	MLV 8
	MP 34.1 – MP 34.6
	MP 35.3 – MP 36.4
	MLV 9
	MP 38.1 – MP 47.0

Source: DPS 2015

### 4.5.3 Impacts

#### Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to cultural and paleontological resources will be considered significant if the Proposed Project:

- causes a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- causes a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- directly or indirectly destroys a unique paleontological resource or site or unique geologic feature; or
- disturbs any human remains, including those interred outside of formal cemeteries.

#### Question 4.5a – Historical Resource

##### *Construction – Less-than-Significant Impact*

The Proposed Project's APE represents the geographic area in which construction of the Proposed Project may have an adverse impact on historic and archaeological resources. The APE ranges from 50 to 100 feet in width along the Proposed Project, depending on its location, and encompasses all staging areas and other temporary work areas. Generally, the APE is narrower where the Proposed Project travels through urban areas and is confined to the roadway and road shoulder, and the APE is generally wider where the Proposed Project travels through undeveloped land.

As reported in the Records Search Results section, six historic addresses with an NRHP status code of 4D<sup>6</sup> were identified within the survey corridor; however, none of the addresses or associated structures are within the APE, and they will not be impacted by the Proposed Project. As shown in Table 4.5-1: Cultural Resources within the APE, six historic resource sites (e.g., build resources or standing structures) are located within the APE. Two of the historic resources within the APE have been previously evaluated for eligibility to the NRHP, CRHR, Local Register, or RPO. One historic site—P-37-019199—within the APE has been recommended as not eligible for NRHP listing. One historic site—P-37-030889—within the APE was evaluated and recommended to be eligible for NRHP listing. The remaining historic resources—CA-SDI-15369, TL1600-S-1, 3602-S-1, and 3602-S-4—have not been evaluated for eligibility to the NRHP, the CRHR, the Local Register, or the RPO.

Table 4.5-1: Cultural Resources within the APE lists whether the Proposed Project will result in an impact to the resource, or if the impact is unknown. No impacts will result to the resource (P-37-019199) that has been previously evaluated and recommended not eligible for NRHP listing, as it does not meet the definition of a historic resource under Section 15064.5. Impacts to the recommended eligible historic resource (P-37-030889), which consists of aboveground and underground irrigation flumes, are anticipated to be avoided as the Proposed Project is primarily limited to the disturbed road and road shoulder at this location. In addition, the Proposed Project

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<sup>6</sup> Each address was given an NRHP status code of 4D based on its contribution to a fully documented district that may become eligible.

is anticipated to have no impacts to one of the unevaluated historic resources located within the APE (SDI-15369). Resource SDI-15369 will be avoided by construction activities, as it is a mural on a granite boulder located on the ground surface at the edge of the APE and outside of the proposed Lake Hodges horizontal directional drill workspace. The potential impacts to the remaining historic resources within the APE are currently unknown as they have not been evaluated for eligibility to the NRHP, CRHR, Local Register, or RPO. Avoidance of resources within the APE during construction may not be feasible at all locations. In addition, excavation associated with construction of the Proposed Project has the potential to uncover and potentially damage or destroy unknown resources.

APM-CUL-01 will ensure that all construction personnel are educated on the potential for exposing subsurface cultural resources and how to recognize potential buried resources, along with procedures to follow upon the discovery of archaeological materials. All resources identified within the APE that have not yet been evaluated for NRHP, CRHR, Local Register, or RPO eligibility will be evaluated prior to the initiation of construction activities, in accordance with APM-CUL-02. To ensure that the historic structures are not impacted during construction, APM-CUL-03 will ensure the monitoring of ground-disturbing activities within the identified cultural resource sites located within the Proposed Project APE by a qualified archaeologist and Native American monitor. In addition, all known resources within the APE that can be avoided will be enclosed within environmentally sensitive area (ESA) fencing, in accordance with APM-CUL-03. The archaeologist will have the authority to stop or divert construction should historic resources be identified during excavation. The archaeologist will also ensure that historic resources discovered during construction will be appropriately recorded. In addition, construction will occur in accordance with the treatment plan required by APM-CUL-02. Thus, with the implementation of APMs, impacts to historic resources will be minimized and construction of the Proposed Project will have a less-than-significant impact.

### ***Operation and Maintenance – No Impact***

Operation and maintenance of the Proposed Project will occur in the same manner as the activities that are currently conducted for existing pipelines in the vicinity. The Applicants have developed standard internal programs and practices to avoid impacts to cultural resources that will be implemented during operation and maintenance of the Proposed Project. In addition, operation and maintenance activities are not anticipated to require ground disturbance within previously undisturbed areas. Therefore, operation and maintenance activities will not have an adverse effect on historical resources, and no impact will occur.

### **Question 4.5b – Archaeological Resource**

#### ***Construction – Less-than-Significant Impact***

As shown in Table 4.5-1: Cultural Resources within the APE, 16 prehistoric or historic archaeological resources and two multicomponent sites (i.e., sites containing both prehistoric and historic resources) are located within the APE. One of these sites—CA-SDI-5072—has been evaluated and was recommended to be eligible for NRHP listing. One site—3602-I-2—is an isolate and thus ineligible for listing on the NRHP, CRHR, Local Register, or RPO. Two additional sites—P-37-014275 and CA-SDI-9124—have been evaluated and recommended as ineligible for listing. The remaining thirteen prehistoric archaeological or multicomponent sites

within the APE—P-37-033557, CA-SDI-4634, CA-SDI-6001, CA-SDI-6083, CA-SDI-6722, CA-SDI-7313, CA-SDI-7315, CA-SDI-10917, CA-SDI-10918, CA-SDI-11466, CA-SDI-11467, CA-SDI-12919, CA-SDI-12920, and CA-SDI-15368—have not been previously evaluated for eligibility to the NRHP, CRHR, Local Register, or RPO.

Impacts to archaeological resources could result during excavation associated with construction of the Proposed Project. Table 4.5-1: Cultural Resources within the APE lists whether the Proposed Project will result in an impact to known prehistoric archaeological resources, or if the impact is unknown. Deposits associated with the recommended eligible prehistoric resource (SDI-5072) may be located under the roadbed of Old Highway 395, and the Proposed Project has the potential to disturb these deposits. In addition, the Proposed Project has the potential to impact the multicomponent resource SDI-4634, though it is unknown if the site is still existing and undisturbed. Impacts to resources SDI-11466 and SDI-15368 are anticipated to be avoided during construction as the Proposed Project will be constructed utilizing horizontal boring techniques at the resource locations and the pipeline will be bored 10 to 30 feet underneath the ground surface, beneath the resources. Newly recorded resource 3602-I-2 was identified within a very disturbed area consisting largely of fill from the construction of Old Highway 395 and appears to have been transported to its location through erosion or as part of road fill. In addition resource 3602-I-2 was determined ineligible for listing on the NRHP; therefore, no impact will occur.

The potential impacts to the remaining archaeological resources within the APE are currently unknown as they have not been evaluated for eligibility to the NRHP, CRHR, Local Register, or RPO. In addition, CA-SDI-6001, CA-SDI-6083, CA-SDI-6722, CA-SDI-7313, CA-SDI-7315, CA-SDI-12919, and CA-SDI-12920 were identified in the record search only and were not discernable during the April 2015 field investigation. As previously described, the previously recorded resources not identified during the April 2015 field investigation were either destroyed since their initial recordation; removed from the surface, and possibly still present subsurface; obscured by dense vegetation or pavement; and/or incorrectly mapped, and are actually located outside of the survey corridor. Therefore, it is unknown whether the Proposed Project will result in a disturbance to these resources or not. Avoidance of known resources within the APE during construction may not be feasible. In addition, construction of the Proposed Project will have the potential to uncover and potentially damage or destroy unknown archaeological resources.

The Proposed Project is located within a Native American homeland area, which is bordered to the north by San Diego County and Riverside County and to the south by SR-76. Initial consultation with Native American tribes has indicated that culturally sensitive sites may exist in the vicinity of the Proposed Project. To ensure the continued coordination with Native American tribes, APM-CUL-04 requires the Applicants to continue the consultation process through construction, provide any requested information pertaining to the Proposed Project design and cultural resource records, and invite Native American consultants to monitor construction in areas of cultural sensitivity.

To reduce potential impacts to the extent possible, APM-CUL-01 will ensure that all construction personnel are educated on the potential for exposing subsurface cultural resources and how to recognize potential buried resources, along with procedures to follow on the discovery of archaeological materials. All archaeological resources identified within the APE

that have not yet been evaluated for NRHP, CRHR, Local Register, or RPO eligibility will be evaluated prior to the initiation of construction activities, in accordance with APM-CUL-02. APM-CUL-03 requires the monitoring of all ground-disturbing activities within the identified cultural resource sites located within the Proposed Project APE by a qualified archaeologist and Native American monitor, and will ensure that the appropriate protocol will be followed if archaeological resources are discovered during construction. In addition, all known resources within the APE that can be avoided will be enclosed within ESA fencing, in accordance with APM-CUL-03. Monitoring will occur in accordance with the treatment plan required by APM-CUL-02. Thus, with the implementation of APMs, impacts to archaeological resources will be minimized and construction of the Proposed Project will have a less-than-significant impact.

### ***Operation and Maintenance – No Impact***

Operation and maintenance of the Proposed Project will occur in the same manner as the activities that are currently conducted for existing pipelines in the vicinity. The Applicants have developed standard internal programs and practices to avoid impacts to cultural resources that will be implemented during operation and maintenance of the Proposed Project. In addition, operation and maintenance activities are not anticipated to require ground disturbance within previously undisturbed areas. Therefore, operation and maintenance activities will not have an adverse effect on archaeological resources, and no impact will occur.

### **Question 4.5c – Paleontological Resources**

#### ***Construction – Less-than-Significant Impact***

Excavation associated with construction and the installation of the Proposed Project has the potential to impact paleontological resources in areas underlain by geologic rock units/formations with moderate paleontological potential and high paleontological potential. The majority of these potential impacts are located within the southern extent of the proposed alignment, though pockets of moderate to high paleontological potential areas occur elsewhere along the Proposed Project. As shown in, Table 4.5-3: Paleontological Potential by MP or MLV, the areas of moderate to high paleontological potential along the Proposed Project occur at the following locations:

- in the vicinity of MLV 1 (approximate MP 1.5),
- from approximate MP 0.7 to approximate MP 1.0,
- from approximate MP 1.5 to approximate MP 1.6,
- in the vicinity of MLV 2 (approximate MP 6.2),
- from approximate MP 7.0 to approximate MP 8.3,
- in the vicinity of MLV 7 (approximate MP 29.3),
- from approximate MP 27.9 to approximate MP 30.6,
- south of MLV 8 (approximate MP 34.0),
- from approximate MP 34.1 to approximate 34.6,
- from approximate MP 35.3 to approximate MP 36.4,
- in the vicinity of MLV 9 (approximate MP 38.); and
- from approximate MP 38.1 to the Proposed Project terminus (at approximate MP 47.0).

The paleontological sensitivities that the Proposed Project crosses, including the areas of moderate and high paleontological sensitives, are depicted in Appendix 2: Paleontological Potential Map in Attachment 4.5-B: Paleontological Resources Technical Report (Confidential). The primary activity that will impact paleontological resources will be excavations for the pipeline itself, as well as for the aboveground facilities. While excavations for bore pits at road crossings will also occur during construction of the Proposed Project, none of the bore pit locations occur in areas of moderate or high paleontological potential.

APM-PALEO-01 will ensure that excavation schedules, paleontological field techniques, and safety issues are appropriately communicated between the Proposed Project's paleontologist and the grading and excavation contractors. To minimize the potential for the direct or indirect destruction of paleontological resources or unique geologic features, the Applicants will implement APMs to ensure the proper salvage, relocation, and management of fossils encountered during excavations. APM-PALEO-02, which requires construction monitoring within areas of high and moderate paleontological potential by a qualified paleontologist, will ensure that fossils encountered during construction are salvaged. APM-PALEO-03 requires that salvaged fossils be appropriately cleaned, repaired, sorted, and cataloged as a part of a construction-phase paleontological mitigation program. All prepared fossils and relevant notes, photos, and maps, will be curated at a scientific institution, such as the SDNHM. Lastly, a final report summarizing the results of the paleontological mitigation program will be prepared for the Proposed Project, as required by APM-PALEO-04. With implementation of APM-PALEO-01 through APM-PALEO-04, the Proposed Project will result in a less-than-significant impact to paleontological resources.

#### ***Operation and Maintenance – No Impact***

Operation and maintenance activities are not anticipated to require ground disturbance within previously undisturbed areas. Therefore, operation and maintenance activities are not anticipated to have an adverse effect on paleontological resources, and no impact will occur.

#### **Question 4.5d – Human Remains**

##### ***Construction – Less-than-Significant-Impact***

No known cemeteries exist and no recorded Native American or other human remains have been identified within or adjacent to the Proposed Project area. As such, the potential for the unintended discovery of human remains during subsurface construction activities required for the Proposed Project is considered to be low. Regardless, in the event that human remains are encountered during the course of construction, the Applicants will implement the appropriate notification processes as required by law. As required by APM-CUL-05, all work will be halted in the vicinity of the find and the county coroner will be notified, as required by California Health and Safety Code Section 7050.5. As a result, potential impacts will be less than significant.

##### ***Operation and Maintenance – No Impact***

As previously described, the presence of human remains is considered unlikely in the Proposed Project area. Ongoing Proposed Project operation and maintenance activities will occur in

previously disturbed areas. Therefore, operation and maintenance activities are not anticipated to encounter human remains and no impact will occur.

#### **Question 4.5e – Tribal Cultural Resources**

##### ***Construction – Significance Determination Pending Completion of Tribal Consultation***

Impacts to tribal cultural resources could occur within the Proposed Project area. However, per the recent amendment to CEQA with the application of AB 52, early consultation with Native American interested parties identified by the NAHC was initiated on April 23, 2015 via letter that described the Proposed Project and a detailed map. The letter solicited input regarding any Native American resources that might be adversely affected by the Proposed Project. As previously discussed, six responses have been received to date, including responses from the Pala Band of Mission Indians, the Pauma Valley Band of Luiseño Indians, the Pechanga Band of the Luiseño Indians, Soboba Band of Luiseño Indians, Rincon Band of Luiseño Indians, and the Viejas Band of Kumeyaay Indians. Correspondence is ongoing and responses received to date are provided in Attachment 4.5-A: Cultural Resources Technical Report (Confidential) and briefly described in the following paragraph.

On April 29, 2015, Pala responded that the Proposed Project is within Pala's Traditional Use Area. Pala requested to receive information about the Proposed Project including updates, reports, newly discovered sites, and Proposed Project design changes. Pala recommends that archaeological monitoring take place for the Proposed Project as it is in the proximity of known cultural and historical resources. On May 4, 2015 the Pauma Valley Band of Luiseño Indians responded that they believe there are sites within the Proposed Project. The Pauma Valley Band of Luiseño Indians requested an updated cultural report for the Proposed Project, and that the Proposed Project be monitored by an archaeologist and Native American. On May 7, 2015 the Viejas Band of Kumeyaay Indians (Viejas) responded that the Proposed contains many sacred sites to the Kumeyaay people. They requested that these sacred sites be avoided with adequate buffer zones with a map of these areas. Additionally, Viejas requested advanced notice of any plans on mitigation measures; active participation in the development of said mitigation measures; all NEPA, CEQA, NAGPRA, and AB 52 laws be followed; that qualified Kumeyaay cultural monitors are on site at all time; frequent updates to the tribes and a final report on findings; and immediate notification of any changes or inadvertent discoveries.

On May 26, Joseph Ontiveros, Cultural Resource Director for the Soboba Band of Luiseño Indians responded via letter that the Soboba Band does not have any specific concerns regarding the Proposed Project, but requested that the appropriate consultation continue. The Soboba Band will defer to other tribes closer to the Proposed Project area, but requested that approved Native American monitors be present during ground disturbance. On June 1, Rose Duro, Chairman of the Rincon Band of Luiseño Indians (Rincon), responded via letter that the Proposed Project is within the Aboriginal Territory of the Luiseño people, is within Rincon's historic boundaries, and is within Rincon's Traditional Use Area. Rincon requested continued consultation and the opportunity for the Rincon Cultural Resources Department to be afforded the opportunity to provide Native American monitors for the Proposed Project. Also on June 1, 2015, the Applicants received a phone call from Pechanga requesting to receive detailed shapefiles of the Proposed Project. Pechanga stated that the Proposed Project is within the Luiseño Ancestral Origin Landscape Traditional Cultural Property. The Applicants, ASM, and Pechanga met on

June 24, 2015 to discuss the beginning of the consultation process and to identify areas of concern. Coordination will continue and further details regarding the meeting are provided in Attachment 4.5-A: Cultural Resources Technical Report (Confidential). To date, no additional responses have been received.

APM-CUL-04, which requires the Applicants to provide requested information and updates during initiation and construction of the Proposed Project, as well as continued Native American tribe consultation efforts, will ensure that consultation will continue pursuant to the PRC Section 21074. APM-CUL-04 also requires that Native American consultants be invited to monitor construction activities within culturally sensitive areas. Native American consultants will be given the right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains. However, tribal consultation is still in progress and tribal resources may be identified as a result of the consultation process. Therefore, the impacts associated with tribal cultural resources has not been determined.

#### ***Operation and Maintenance – No Impact***

Ongoing Proposed Project operation and maintenance activities will occur only in previously disturbed areas. Therefore, they are not anticipated to encounter any tribal cultural resources or traditional properties not identified prior to or during construction of the Proposed Project, and no impact will occur.

#### **4.5.4 Applicants-Proposed Measures**

The Applicants have designed and incorporated the following APMs into the Proposed Project to avoid or minimize potential impacts to agricultural resources:

- **APM-CUL-01:** Prior to construction, all Applicants, contractor, and subcontractor personnel will 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 will include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials—including Native American remains and their treatment—and paleontological resources.
- **APM-CUL-02:** Prior to the initiation of construction, historic and archaeological resources identified by the record search and field investigation within the area of potential effect will be evaluated to determine if they are eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), Local Register, or Resource Protection Ordinance. Once the eligibility status is determined for each resource, the Applicants will prepare and implement a formal treatment plan that includes procedures for protection and avoidance, evaluation and treatment, and the curation of any NRHP- or CRHR-eligible cultural materials that cannot be avoided within the area of potential effect.
- **APM-CUL-03:** A qualified archaeologist and Native American will monitor ground-disturbing activities within 50 feet of known sensitive cultural resource sites.

Environmentally sensitive area (ESA) fencing will be placed around the resources within the Proposed Project's area of potential effect that can be avoided by construction unless existing physical barriers preclude the use of ESA fencing. A qualified archaeologist and Native American monitor will monitor all construction activities within 50 feet of ESA fencing. The requirements for archaeological monitoring will be noted on the construction plans. The archaeologist's duties will include monitoring, analysis of the materials, and preparation of a monitoring results report. In the event cultural resources are encountered during ground-disturbing activities, the archaeologist will have the authority to divert or temporarily suspend ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact the Applicants' Cultural Resources Specialist and Environmental Project Manager at the time of the discovery. The archaeologist, in consultation with the Applicants' Cultural Resource Specialist, will determine the significance of the discovered resources. The Applicants' Cultural Resources Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, preservation in place will be the preferred manner of mitigating impacts. For resources that cannot be preserved in place, a Research Design and Data Recovery program will be prepared and carried out to mitigate impacts. All newly identified cultural resources will be documented on appropriate California Department of Parks and Recreation forms and submitted to the South Coastal Information Center along with reports generated from the monitoring efforts.

- **APM-CUL-04:** Consultation with Native American tribes will be continued through construction of the Proposed Project, pursuant to California Public Resource Code Section 21074. Consultation will identify and assess or mitigate the impact of the Proposed Project to tribal cultural resources and traditional cultural properties or other resources of Native American concern. Native American consultants will be invited to monitor construction activities within culturally sensitive areas and will be given the right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains. In addition, the Applicants will provide requested information and updates during initiation and construction of the Proposed Project, which may include information regarding further developments in the Proposed Project, copies of site records, survey reports, or other environmental documents.
- **APM-CUL-05:** In the event human remains are encountered during ground-disturbing activities, all work shall cease in the vicinity of the discovery and the County coroner shall be contacted per the California Public Resource Code. Should the remains be identified as Native American, the Native American Heritage Commission shall be contacted within 48 hours to provide a Most Likely Descendant to determine reburial practices for the remains. All actions related to the treatment of human remains will be implemented in accordance with the California Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98.
- **APM-PALEO-01:** A qualified paleontologist will attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined

as an individual with a Master of Science or Doctor of Philosophy degree in paleontology or geology who is familiar 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 San Diego County for at least one year.

- **APM-PALEO-02:** A paleontological monitor will be on site on a full-time basis during ground-disturbing activities that occur at least two feet or more below the existing grade within previously undisturbed deposits of high and moderate paleontological potential to inspect exposures for contained fossils. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. The paleontological monitor will work under the direction of a qualified paleontologist.
- **APM-PALEO-03:** If fossils are discovered, the paleontologist (or paleontological monitor) will recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (e.g., a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) has the authority to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner.

Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, and cataloged as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will be curated as a donation in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum.

- **APM-PALEO-04:** A final summary report outlining the results of the paleontological mitigation program will be prepared following completion of the paleontological monitoring efforts. This report should include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

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**ATTACHMENT 4.5-A: CULTURAL RESOURCES TECHNICAL REPORT (CONFIDENTIAL)**



**Attachment 4.5-A: Cultural Resources Technical Report has been omitted due to its confidential nature.**



**ATTACHMENT 4.5-B: PALEONTOLOGICAL RESOURCES TECHNICAL REPORT  
(CONFIDENTIAL)**



**Attachment 4.5-B: Paleontological Resources Technical Report has been omitted due to its confidential nature.**