

## 5.0 ENVIRONMENTAL IMPACT ANALYSIS

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### 5. CULTURAL AND PALEONTOLOGICAL RESOURCES

#### 1. INTRODUCTION

This section of the Draft Environmental Impact Report (EIR) analyzes the Project's potential impacts on cultural resources, including those of historic and/or archaeological significance. This section also addresses project impacts on paleontological resources. The analysis is based on correspondence from the Native American Heritage Commission (NAHC) as well as the following documents: *Intensive Phase I Archaeological Survey of VTTM 53295* (Phase I Archaeological Survey) prepared by W & S Consultants in January 2014; *Phase II Archaeological Test Excavation and Determination of Significance at the Entrada Project Site* (Phase II Test Excavation) prepared by W & S Consultants in May 2014; various ethnographic studies and other literature; archival records; and *Paleontological Resources Assessment* (Paleontological Assessment) prepared by John Minch and Associates, Inc. in December 2013. These technical reports, NAHC correspondence, and selected studies are included as **Appendix 5.5** of this Draft EIR.

#### 2. ENVIRONMENTAL SETTING

##### a. Regulatory Setting

##### (1) Federal Regulations

##### *(a) The National Register of Historic Places*

The National Register of Historic Places (National Register) was established by the National Historic Preservation Act of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The National Register recognizes properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. A resource must satisfy one of the following four criteria to qualify as a significant resource:

- A. It is associated with events that have made a significant contribution to the broad patterns of our history;
- B. It is associated with the lives of persons significant in our past;
- C. It embodies the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. It yields, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of these criteria, an eligible property must exhibit *integrity*, which is based on the following seven aspects: location, design, setting, materials, workmanship, feeling, and association. To establish historic integrity, a property must possess several, and usually most, of these seven aspects. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.

## **(2) State Regulations**

### ***(a) The California Register of Historical Resources***

The California Register of Historical Resources (California Register) is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” The criteria for eligibility for the California Register are based upon National Register criteria. The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward;
- Those California Points of Historical Interest that have been evaluated by the California Office of Historic Preservation (OHP) and have been recommended to the State Historical Resources Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Individual historical resources;
- Historical resources contributing to historic districts;
- Historical resources identified as significant in historical resources surveys with significance ratings of Category 1 through 5 as defined on the California Department of Parks and Recreation’s Form 523;
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

To be eligible for the California Register, a historic resource must be significant at the local, state, or national level, under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. 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
4. Has yielded, or has the potential to yield, information important in prehistory or history.

Additionally, similar to the National Register, a historic resource eligible for listing in the California Register must also retain its *integrity*. As with the National Register, integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.”<sup>1</sup>

**(b) California Environmental Quality Act**

CEQA requires a lead agency to analyze whether the project under review will adversely affect historic and/or archaeological resources. Under CEQA, Public Resource Code (PRC) Section 21084.1, a “project that may cause a substantial adverse change in

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<sup>1</sup> California Code of Regulations, California Register of Historical Resources (Title 14, Chapter 11.5), Section 4852(c).

the significance of a historic resource is a project that may have a significant effect on the environment.” CEQA Guidelines Section 15064.5 implements this statutory section by setting forth a two-part inquiry. The first involves a determination of whether the project involves a *historic* resource. If so, the lead agency must determine whether the project may involve a “substantial adverse change in the significance” of the resource.

For purposes of CEQA compliance, Section 15064.5 defines the term “historical resources” to include the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC Section 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements in Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat such resources as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, 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 an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a 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 (PRC Section 5024.1, Title 14 CCR, Section 4852).

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

It is important to note that, under CEQA Guidelines section 15064.5(c)(2), an “archaeological site” may also qualify as a “historic site,” provided it meets the criteria discussed above. An archaeological site that does not meet the historic site criteria may still qualify for protection under CEQA as a “unique archaeological resource,” as defined in PRC section 21083.2(g). (CEQA Guidelines § 15064.5(c)(3).) Unique archaeological resources are discussed further below.

CEQA Guidelines Section 15064.5 also provides that “[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” Material impairment occurs when a project materially alters or demolishes “those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion” in the California Register or a local historic registry or that justify its eligibility for inclusion.

As stated above, if a cultural resource does not qualify as a “historic site,” it may qualify for protection under CEQA as a “unique archaeological resource.” As used in CEQA, PRC Section 21083.2(g), “a unique archaeological resource” means 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:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA requires the lead agency to consider whether the project would significantly affect unique archaeological resources or resources eligible for listing in the California Register, and to avoid these resources when feasible or to mitigate any effects to less than significant levels (PRC Sections 21083.2 and 21084.1). In fact, CEQA Guidelines Section 15126.4(b)(3)(A) states that “Preservation in place is the preferred manner of mitigating impacts to archaeological sites.” Preservation in place may be accomplished by, but is not limited to, the following: (1) planning construction to avoid archaeological sites; (2) incorporating the sites within parks, greenspace, or other open space; (3) covering the archaeological sites with a layer of chemically stable soil before building any facilities on top of them; and (4) deeding the site into a permanent conservation easement. (CEQA Guidelines § 15126.4(b)(3)(B)). Note that an EIR must discuss and compare each of these four “preservation in place” techniques when determining which one to use (or whether to use more than one).

CEQA Guidelines Section 15064.5(c)(4) notes that if an archaeological resource is neither a historic resource or a unique archaeological resource, the effects of the project on those resources shall not be considered a significant effect on the environment.

CEQA also includes guidance for addressing situations when a project has the potential to disturb or accidentally discover buried human remains. These are set forth in CEQA Guidelines Section 15064.5(e).

Paleontological resources are also afforded protection under CEQA. Appendix G of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, which states that a project could have a potentially significant impact on the environment if it could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

***(c) California Health and Safety Code***

Sections 7050.5, 7051, and 7054 of the California Health and Safety Code address the illegality of interference with human burial remains (except as allowed under applicable sections of the PRC), and the disposition of Native American burials in archaeological sites. These regulations protect such remains from disturbance, vandalism, or inadvertent destruction, and establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including treatment of the remains prior to, during, and after evaluation, and reburial procedures.

***(d) Senate Bill 18***

Government Code Section 65352.3 (Senate Bill 18) requires local governments to consult with California Native American tribes identified by the NAHC prior to the adoption or amendment of a general plan for the purpose of protecting traditional tribal cultural places. The State Office of Planning and Research's technical advice series strongly recommends that agencies solicit the concerns of Native Americans and other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associates and societies as part of the process of cultural resources inventory.

**(3) County Regulations**

***(a) County of Los Angeles General Plan***

As discussed in greater detail in **Section 5.11**, Land Use and Planning, of this Draft EIR, the Los Angeles County (County) General Plan directs future growth and development in the County's unincorporated areas and establishes goals, policies, and objectives that pertain to the entire County. The current General Plan, adopted in 1980, includes relevant policies that focus on the protection and awareness of cultural resources.

As also discussed further in **Section 5.11**, Land Use and Planning, the County circulated a draft General Plan update, entitled Los Angeles County General Plan 2035 (Draft General Plan), in January 2014 and a Draft EIR addressing the Draft General Plan in June 2014. This Draft General Plan contains a new Conservation and Natural Resources Element that includes a section on historic, cultural, and paleontological resources with a stated goal of protecting such resources.

The General Plan policy consistency analysis provided in **Section 5.11**, Land Use and Planning, indicates the Project would be consistent with relevant General Plan polices related to cultural and paleontological resources.

***(b) Santa Clarita Valley Area Plan: One Valley One Vision 2012***

As also discussed in greater detail in **Section 5.11**, Land Use and Planning, the recently updated Santa Clarita Valley Area Plan: One Valley One Vision 2012 (Area Plan) serves as a long-term guide for development in the Santa Clarita Valley (Valley) Planning Area over the next 20 years.<sup>2</sup> The Area Plan ensures consistency between the General Plans of the County and the City of Santa Clarita (City) in order to achieve common goals and encourages the coordination of land use plans with public services and other departments or agencies. The Area Plan identifies sites and structures in the Valley identified as having historic or cultural significance based on building characteristics, events that took place at the site, or the site's role in the historical or cultural development of the community. In addition, the Area Plan notes that almost 70 Native American sites have been identified near the Santa Clara River within the Valley. Relevant polices address the need to review proposed alterations to identified cultural and historical sites as well as notification and consultation with Native American tribes regarding potential impacts to Native American resources.

The Area Plan policy consistency analysis provided in **Section 5.11**, Land Use and Planning, indicates the Project would be consistent with applicable Area Plan polices related to cultural resources.

***(c) Los Angeles County Historical Landmarks and Records Commission***

The Los Angeles County Historical Landmarks and Records Commission (Historical Commission) reviews and recommends cultural heritage resources in the unincorporated

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<sup>2</sup> The Area Plan is discussed in greater detail in **Section 5.11**, Land Use and Planning, of this EIR.

areas of the County for inclusion in the State Historic Resources Inventory.<sup>3</sup> The Historical Commission considers and recommends to the County Board of Supervisors local historical landmarks worthy of registration by the State of California Department of Parks and Recreation, either as “California Historical Landmarks” or as “Points of Historical Interest,” and it may consider and comment for the Board on applications relating to the National Register.<sup>4</sup>

#### **(4) Previously Adopted Plans and Mitigation**

##### **(a) Newhall Ranch RMDP/SCP and EIS/EIR**

The Project Site is included in the project area for the Applicant's Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP), shown in **Figure 3-5**, RMDP/SCP Project Area, in **Section 3.0**, Project Description, of this Draft EIR, which covers certain aspects of resource management for the Project and other nearby developments. As discussed in greater detail in **Section 4.1**, Environmental and Regulatory Setting, the RMDP component of the Newhall Ranch RMDP/SCP project is a conservation, mitigation, and permitting plan for the long-term management of sensitive biological resources and development-related infrastructure in the River and tributary drainages within the 11,999-acre Newhall Ranch Specific Plan (Specific Plan) area and along the extension of Magic Mountain Parkway through the Project Site. The SCP component of the Newhall Ranch RMDP/SCP project is a conservation and management plan to permanently protect and manage a system of preserves designed to maximize the long-term persistence of the San Fernando Valley spineflower (*Chorizanthe parryi ssp. Fernandina*) (spineflower), a federal candidate and state-listed endangered plant species. The SCP encompasses the Specific Plan area, the Valencia Commerce Center planning area, and the Project Site, in order to conduct conservation planning and preserve design on the Project Applicant's land holdings in Los Angeles County that contain known spineflower populations.

The Newhall Ranch RMDP/SCP project was the subject of a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (SCH No. 2000011025) by the U.S. Army Corps of Engineers (Corps) and the California Department of Fish and Wildlife (CDFW).<sup>5,6</sup> At the time CDFW certified the EIR portion of the EIS/EIR in December 2010, it

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<sup>3</sup> Los Angeles County, *Public Review Draft General Plan, January 2014*, p. 155.

<sup>4</sup> County of Los Angeles Department of Auditor-Controller, *Sunset Review for the Los Angeles County Historical Landmarks and Records Commission, August 5, 2013*, <http://file.lacounty.gov/bos/supdocs/78948.pdf>, accessed March 3, 2015

<sup>5</sup> *Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan, Final Joint Environmental Impact Statement and Environmental Impact Report, June 2010.*



also adopted the Mitigation Monitoring and Reporting Plan (MMRP) for the RMDP/SCP project. This regulatory plan, required under CEQA, describes the mitigation measures, monitoring, and/or reporting plan for the Newhall Ranch RMDP/SCP project (including the Entrada South Project Site). CDFW adopted mitigation measures to reduce potential impacts to historic, archaeological, and paleontological resources resulting from implementation of the Newhall Ranch RMDP/SCP project (see Mitigation Measures (MM) RMDP/SCP CR-1a through CR-6 and PR-1 through PR-7 in **Appendix 2A**).

### **(i) Newhall Ranch Section 404 Permit**

The Corps issued the Applicant the final Clean Water Act (CWA) Section 404 permit (Permit No. SPL-2003-01264-AOA) for the Newhall Ranch RMDP/SCP project on October 17, 2012.<sup>7</sup> As part of that permit, the Corps imposed special conditions requiring the Applicant to comply with all terms and conditions stipulated in the National Historic Preservation Act Section 106 Programmatic Agreement (PA) for the Newhall Ranch RMDP, dated October 4, 2010. Additionally, the special conditions require the Applicant to retain a qualified archaeologist, who meets at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (36 CFR Part 61), to perform archaeological monitoring of the Project Site during all earthmoving activities. The special conditions also stipulate that in the event of any discoveries during construction of either human remains, archaeological deposits, or any other type of historic property, the Applicant shall immediately suspend all work in areas where the potential cultural resources are discovered and notify the Corps Archeology staff within 24 hours. Construction shall not commence in the area surrounding (i.e., immediately adjacent to) the potential cultural resources until the Corps re-authorizes project construction. Finally, the special conditions state that the Applicant shall bear the expense of treatment of all historic properties set forth in the treatment plan and PA.

## **b. Existing Conditions and Background**

### **(1) Project Site**

The Project Site is generally comprised of vacant land, agricultural uses, a small plant nursery used by the adjacent Six Flags Magic Mountain, and abandoned oil wells and associated access roads. In addition, the southern boundary of the Project Site is developed with Southern California Edison electric transmission lines and towers, and a

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<sup>6</sup> The California Department of Fish and Game was officially renamed the California Department of Fish and Wildlife as of January 1, 2013.

<sup>7</sup> See **Appendix 2F** of this Draft EIR for a copy of Newhall's final Section 404 permit and associated Record of Decision (August 2011).

high pressure natural gas transmission pipeline traverses the southernmost portion of the Project Site from east to west. It is likely that smaller-diameter pipelines associated with past oil field operations also may be present.

The topography of the Project Site varies, with elevations ranging from approximately 1,000 feet above mean sea level (AMSL) to approximately 1,400 feet AMSL. The Project Site includes four canyons: Magic Mountain Canyon along the western site boundary, Unnamed Canyon 1 within the western portion of the Project Site, Unnamed Canyon 2 within the central portion, and Unnamed Canyon 3 within the eastern portion, each of which drains to the north towards the Santa Clara River (refer to **Figure 5.9-1**, Tributary Drainages, in **Section 5.9**, Hydrology and Water Quality—Hydrology, of this Draft EIR for a graphic depiction).

With regard to surrounding uses, Six Flags Magic Mountain is located north of VTTM 53295 and east of the External Map Improvements that comprise the northern portion of the Project Site. The existing community of Westridge and proposed Legacy Village are located to the south and southwest of the Project Site, respectively. In addition, the developed City of Santa Clarita is located to the east and is separated from the Project Site by The Old Road and I-5. Finally, vacant land within the Newhall Ranch Specific Plan area is located to the west. Within this area, the approved (but not yet built) Mission Village community is located to the immediate west.

## **(2) Ethnographic, Archaeological, and Historical Background**

A summary of the ethnographic, archaeological, and historic background of the Project Site and surrounding areas is provided below.<sup>8</sup>

### **(a) Ethnographic Background**

As discussed in detail in the Phase I Archaeological Survey, the Upper Santa Clara River Valley region, including the Project Site, appears to have been inhabited during the ethnographic past by an ethnolinguistic (cultural linguistic) group known as the Tataviam. Based on a few existing word lists, descriptions provided by early travelers in the area, mission place-names, and the recollections of other aboriginal informants, the Tataviam are generally accepted as the aboriginal inhabitants of the region. Their language is believed to represent a member of the Takic branch of the Uto-Aztecan linguistic family. Therefore, the language was related to other Takic languages in the Los Angeles County region, such

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<sup>8</sup> *Ethnography refers to a branch of anthropology that deals with the scientific description of individual cultures.*

as Gabrielino/Fernandeno of the Los Angeles Basin proper, and Kitanemuk of the Antelope Valley.

As discussed in the Phase 1, known Tataviam villages during the historic period were located near modern Piru, at San Francisquito; at Piru Creek above Piru; near Newhall, at Elizabeth Lake; and near Castaic Junction. In addition, near modern Rancho Camulos, a mixed Chumash-Tataviam population lived. Another historical Tataviam village, often referred to as “Tacuyam,” was reported to have been located at Castaic Junction and associated with Asistencia de San Francisco. However, despite multiple efforts to locate this village, its location has never been precisely identified in the historical records.

The Tataviam were hunters-gatherers and their religion appears to have focused on shamanism. Little is known of Tataviam social and political organization. It is estimated that the Tataviam population was less than 1,000 people at the time of Euro-American contact, and only two or three of the largest villages throughout their territory were inhabited at any given time. Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, a general lack of information on this group exists because, by 1810, all known Tataviam had been baptized at Mission San Fernando and were quickly absorbed by other groups through intermarriage. The last known speaker of Tataviam died in 1916.

The *Ethnographic Overview of the Los Padres National Forest* and the *Ethnographic Overview of the Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory*, both of which were prepared by Northwest Economic Associates in February 2004, provide additional details of the ethnographic background of the Valley and adjacent areas.<sup>9</sup> The *Ethnographic Overview of the Los Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory* indicates that the ethnic language boundaries for the Tataviam generally included the Valley, while the ethnic language boundaries for the Chumash generally extended from the eastern portion of Los Padres National Forest west to the Pacific Ocean, and the ethnic language boundaries for the Serrano extended to the east of the Tataviam boundaries and included the southern portion of Angeles National Forest. These studies also demonstrate the abundance of ties between settlements. In particular, the Chumash had ties to most nearby settlements, as the Chumash did not have a lineage organization and most marriage was matrilineal (i.e., couples would reside with the wife’s tribe). In addition, there appears to have been frequent intermarriage across the Tataviam–Serrano boundary.

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<sup>9</sup> These documents are included in **Appendix 5.5D** and **Appendix 5.5E** of this Draft EIR.

**(b) Archaeological Background**

In general terms, the prehistory of the inland area that encompasses the Project Site appears to parallel that of the Santa Barbara Channel/southern California coastal zone. Specifically, the earliest evidence for human occupation of this region corresponds to Wallace's Early Millingstone Period that dated from about 7,000 to 4,000 years before present (B.P., defined as roughly 1950 and after). During this period, subsistence and adaptation emphasized the collecting and processing of hard seeds, with inland artifact assemblages dominated by mullers and millingstones known as manos and metates. However, the limited evidence available has cast some doubt about the human inhabitation of the region before 4,000 years ago.

The second temporal unit in Wallace's chronology is the Intermediate Period that dated from 3,500 to 1,500 years B.P. and was marked by a shift to the mortar and pestle, with an increased emphasis on hunting and hunting tools in artifact assemblages. Evidence of occupation of the Upper Santa Clarita Valley during this period is substantial. As with other areas of southern California, a major expansion in settlement, the establishment of large complexes, and an increase in the range of environments exploited occurred during the Intermediate Period.

There is continuity in the inland regions between the Intermediate Period and subsequent times, labeled the Late Prehistoric Period, lasting from 1,500 years B.P. to historic contact at about 200 years B.P. During the Late Prehistoric Period, site complexes that were first occupied during the Intermediate Period continued to be inhabited although they increased in size, with more specialized and diversified sites added to the kinds of sites present.

During the Historic Period, the aboriginal population appears to have dropped considerably, which is attributed to the effects of missionization and its attendant relocation of the aboriginal population to centralized locales, along with ravages from introduced Old World diseases. The Upper Santa Clara River region appears to be one of those inland zones, like the Antelope Valley to the north, which quickly and completely lost its aboriginal population. In particular, the aboriginal population from the Upper Santa Clara River Valley was moved into Mission San Fernando, in the San Fernando Valley, and the area was effectively depopulated. The *Ethnographic Overview of the Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory* describes how Mission San Fernando initially recruited the Tataviam located within the Santa Clara River drainage area east of Piru and west of Acton, and in the vicinity of the mission. Northeast of the mission, Serrano settlements were also recruited. South of the mission, along the Los Angeles River and on the southern Channel Islands, the Gabrielino were recruited. In addition, the Chumash were also recruited, but to a lesser extent, as they were further away from Mission San Fernando.

### **(c) Historical Background**

Euro-Americans first mentioned the Upper Santa Clara River Valley region in the chronicles of the Portola expedition of 1769, which passed through the San Fernando Valley to Newhall, then to the Castaic Junction area, and then down the Santa Clara River, to Ventura, on its way to Monterey. Portola camped at the confluence of the Santa Clara and Castaic Creeks (what is now Castaic Junction) and suggested this locale as an appropriate place for a mission.

Although the Upper Santa Clara River Valley region was traversed by a number of Spanish explorers in subsequent years, it initially remained isolated due to rugged topography. With the establishment of Missions San Buenaventura in 1782 and San Fernando in 1797, late-18th century events largely occurred in areas to the west and south of the Upper Santa Clara River Valley. However, as the missions increased in size and herds grew, mission ranchos, or estancias, were established. San Francisco Xavier served as the estancia for Mission San Fernando and comprised the upper reaches of the Santa Clara River Valley within the area that would become the Newhall Ranch. Eventually San Francisco Xavier was raised from the status of estancia to asistencia, or sub-mission. The Asistencia de San Francisco Xavier represented the first European settlement of the Upper Santa Clara River Valley region. During this period, its primary function was as a ranching and perhaps agricultural out-station, as well as a religious outpost. Structures that were constructed included three adobe buildings, one of which included a tiled sacristy. In 1839, ownership was transferred to Antonio del Valle when the asistencia's land was granted as Rancho San Francisco to del Valle by Governor Alvarado. In 1845, the rancho passed to Antonio del Valle's son, Ignacio, who ultimately became a prominent politician in southern California. Under the direction of Ignacio del Valle, an expansive corral, the Camulos Adobe, which later became the del Valle family home, and one of the first commercial wineries were constructed.

Precipitated by the discovery of tar seeps in Pico Canyon, del Valle sold the majority of Rancho San Francisco in 1865 to Thomas A. Scott and Thomas Bard of the Philadelphia and California Petroleum Company. Scott and Bard subsequently sold a portion of the ranch to Henry Mayo Newhall, a San Francisco financier, in January 1875. Shortly thereafter, Newhall placed 7,000 acres of the ranch under cultivation for wheat and barley, and raised 700 head of cattle and 10,000 sheep. The former location of the Newhall Ranch headquarters is located within the northern portion of the Project Site.

Henry Mayo Newhall died in 1882 and the ranch then passed to his heirs. When the company's financial health subsequently declined, Athol McBean, son-in-law of William Mayo Newhall (Henry's son) reorganized The Newhall Land and Farming Company (Newhall Land) and moved it back to sound financial footing. Newhall Land has continued as a major agricultural/ranching and land developer in the region to the present time.

The Rancho San Francisco/Newhall Ranch and the upper reaches of the Santa Clara River Valley were involved in three important episodes in southern California history, including the discovery of gold, oil drilling that led to discoveries of oil in the region, and the collapse of Los Angeles Department of Water and Power's St. Francis Dam and the resulting flood of the Santa Clara River Valley in 1928.

**(d) Sacred Lands File Search and Native American Consultation**

The NAHC performed a Sacred Lands File search but did not identify any known Native American cultural resources within the Project Site.<sup>10</sup> However, the NAHC indicated there are Native American cultural resources in the Project vicinity. The NAHC provided a list of names of the nearest tribes and interested Native American individuals recommended for consultation, as such parties may have knowledge of the religions and cultural significance of the historic properties in the Project area. The list included several representatives of the Fernandeno Tataviam Band of Mission Indians; representatives of the San Fernando Band of Mission Indians, the Kitanemuk and Yowlumne Tejon Indians, and the San Manuel Band of Mission Indians; the Los Angeles City and County Native American Indian Commission; and persons with ties to non-federally recognized bands of the Chumash Indians that are local to the Project Site. Pursuant to Senate Bill 18, in March 2014, the County sent written communication inviting the representatives of the Native American tribes identified by the NAHC, as well as additional persons representing the Fernandeno Tataviam Band of Mission Indians, to engage in consultation with the County on the Project.

To date, only the Fernandeno Tataviam Band of Mission Indians (Tataviam) has requested consultation. Specifically, Kimia Fatehi and Katilin Gulley, both representing the Tataviam, have indicated that the Project Site has been identified as breaking ground in traditional Tataviam tribal lands and thus may disturb culturally sensitive deposits. As a result of the County's outreach efforts and responses received from the Tataviam, further consultation with the Tataviam has occurred, as the Tataviam is the one tribe that expressed interest in monitoring during construction of the Project. Based on consultation with the Tataviam, in 2007 the Project Applicant and the Tataviam entered into an agreement (the "Tataviam Agreement") which, among other things: (a) provides funding to the Tataviam for use in the development of Tataviam cultural enrichment programs; (b) conveys to the Tataviam ownership of 1 acre of land located within the Newhall Ranch Specific Plan area for the construction of an interpretive cultural center; and (c) requires the Project Applicant to retain the Tataviam for all monitoring activities

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<sup>10</sup> *Written communication with Dave Singleton, Program Analyst, Native American Heritage Commission, July 21, 2010.*

associated with grading and development of Newhall projects.<sup>11</sup> The Memorandum of Agreement is included in **Appendix 5.5H** of this Draft EIR.

**(e) Cultural Resource Surveys and Findings**

As discussed below and shown in the records search provided in the Phase I Archaeological Survey, 39 previous archaeological studies have been conducted within a 0.5-mile radius of the Project Site. Of these, nine were conducted within the Project Site.

These 39 surveys identified three archaeological sites and one aboveground historic resource within a 0.5-mile radius of the Project Site. One of these, Site No. 19-000961, is located within the Project Site. The three sites and the above-ground historic resource that have been identified within a 0.5-mile radius of the Project Site are as follows:

- Historic Archaeological Site No. 19-000961 is the site of the original Newhall Ranch headquarters and it is located in the vicinity of the Six Flags Magic Mountain parking lot and an adjacent paved road located within the Project Site. The original Victorian-era house was moved from this location to the community of Piru when Six Flags Magic Mountain was developed. Following its relocation to the community of Piru, the Victorian era house burned down.
- Site No. 19-000962, the original Asistencia de San Francisco, is located on a high terrace upslope and northwest of the Project Site. The site consists of remnants of the two original adobe structures, along with a mission-era kitchen refuse deposit. The site is slated for preservation by the Archaeological Conservancy.<sup>12</sup>
- Site No. 19-002190 consists of a Southern Pacific Railroad bridge built in 1898. It is approximately 125 feet long and 18 feet wide with the date 1898 etched into two metal plaques hanging at either end of the bridge. The northern cement foundation of the bridge was replaced in the 1920s, possibly after the 1928 flood that resulted from the breaking of the Saint Francis Dam.
- Site No. 19-190315, The Old Road Bridge over the Santa Clara River, was constructed in 1928 to replace the bridge that was washed out by the Saint

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<sup>11</sup> *The geography addressed in the Memorandum of Agreement includes the area west of Interstate 5 and both south and north of State Route 126. Newhall projects in this area include Newhall Ranch, Entrada, Legacy Village, and build-out of the Valencia Commerce Center.*

<sup>12</sup> *In accordance with Mitigation Measure (MM) MV 4.20-2 set forth in the Mitigation Monitoring and Reporting Program (MMRP) for the Mission Village project, the area containing Site No. 19-000962 will be dedicated to the Archaeological Conservancy, based in Albuquerque, New Mexico, upon recordation of the Mission Village tract map, which is located to the west of the Project Site.*

Francis Dam disaster. The bridge measures approximately 412 feet in length by 49 feet in width. It consists of five steel spans with reinforced concrete. Caltrans determined the bridge was not eligible for the National Register in 2011.

Site Nos. 19-000961 and 19-000962 are included in California Historical Landmark No. 556 Rancho San Francisco, and Site No. 19-000962 has been determined eligible for the National Register. In addition, Site No. 19-000962 is listed on the California Register.

Examination of the 1903 and 1941 Santa Susana, California, 15-foot topographic quadrangles shows the presence of one and possibly two structures in the flats below the Asistencia de San Francisco (Site No. 19-000962). This area is not within the Project Site. However, since the Project is located within 0.125 mile of the Asistencia, limited backhoe testing was conducted in October 2006 within the northern portion of the Project Site to determine the presence or absence of historic cultural remains within that portion of the Project Site. No cultural remains of any kind were found during the testing program.

As part of the Phase I Archaeological Survey, an on-foot survey of the Project Site was conducted in June 2010. During the on-foot survey, special attention was paid to geomorphological conditions that affect the preservation of archaeological remains. The Project Site was found to have a nonexistent to very-low density of archaeological remains, with site locations closely conforming to the expectations derived from the archival records search summarized above. There were no prehistoric archaeological sites identified within the Project Site through the Phase I Archaeological Survey.

The Historic Archaeological Site No. 19-000961 was identified on the northern end of the Project Site. However, no surface evidence of Site No. 19-000961 was observed during the field survey as its locations lies under a parking lot and paved road. Subsequently, in April 2014, a Phase II Test Excavation was conducted for the southwestern portion of Site No. 19-000961. As set forth in the Phase II Test Excavation, no subsurface remains associated with Site No. 19-000961 were found within the Project Site. In fact, no evidence of any existing archaeological remains was found, and the native soils within the northern portion of the Project Site are largely undisturbed.

Based on the above, the Project Site has a low sensitivity for historical archaeological sites. This finding is consistent with information set forth in the *Ethnographic Overview of the Los Padres National Forest* and the *Ethnographic Overview of the Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory*, neither of which identified any cultural site or settlement within or near the Entrada South project area.



With regard to historic resources, above-ground structures located within the Project Site include a greenhouse/landscaping office/storage building and a tool shed used by Six Flags Magic Mountain, as well as storage tanks, and infrastructure associated with abandoned oil wells. These structures and infrastructure lack sufficient historic importance and architectural notability to merit recognition as historic resources on the federal, state, and local levels of significance. The records search conducted by South Central Coastal Information Center, confirms the absence of above-ground historic resources within the Project Site.

### (3) Existing Paleontological Resources

Review of Los Angeles County Museum and University of California Berkeley Museum of Paleontology records, fossil lists, and published and unpublished literature indicates that a number of paleontological resource localities are recorded within the region. As discussed in detail in the Paleontological Resources Assessment, the Saugus Formation and the Quaternary terrace deposits within the Santa Clarita Valley have produced various types of fossil remains.

Geologic units observed within and adjacent to the Project Site include the Saugus Formation, landslides, terrace deposits, alluvium, and engineered and non-engineered fill, as shown in **Figure 5.6-1**, Geologic Map of the Project Site, and as discussed further in **Section 5.6**, Geology and Soils, of this Draft EIR. According to the Paleontological Resources Assessment, several of the geologic units underlying the Project Site include formations with moderate to high paleontological sensitivity. Descriptions of the paleontological sensitivities of these geologic units are provided below:

- **Saugus Formation.** The Pleistocene Saugus Formation underlies (at shallow depths) the majority of the Project Site. The Saugus Formation sediments in the Project area are known to regionally and locally contain significant fossils. Therefore, there is a high potential for significant paleontological resources on the portion of the Project Site underlain by the Saugus Formation.
- **Quaternary Terrace Deposits.** Quaternary Terrace Deposits that have a record of fossil production in the region are exposed at elevations along the Santa Clara River. Therefore, there is a moderate to high potential for significant paleontological resources on the portion of the Project Site underlain by the Quaternary Terrace Deposits. This unit is often thin and is underlain by older fossiliferous sediments that have a high potential to contain significant fossils.
- **Quaternary Alluvium.** Younger Alluvium typically has a low potential to contain significant nonrenewable paleontological resources, and is typically assigned low paleontological sensitivity. However, as it is difficult to distinguish Younger (Recent-Qa) Alluvium from Older (Pleistocene-Qoa) Alluvium when deposition

was continuous and areas mapped as Qa in the Project area may really be Qoa. Therefore, there is a moderate to high potential for significant paleontological resources on the portion of the site underlain by Alluvium. Alluvium is assigned low to high paleontological sensitivity depending on depth and position.

As discussed in detail in the Paleontological Assessment, based on a review of the Los Angeles County Museum and University of California Berkeley Museum of Paleontology records, fossil lists, published and unpublished literature, walkovers of the Project Site by John Minch and Associates, Inc. in September 2013 and by RMW Associates in 1994, no known paleontological resources are located within the Project Site. However, in 1994, fossils were found off-site by RMW Associates in nine locations, including four localities that were plotted in the Saugus Formation to the west of the Project Site. The other five localities that contained fossils were not plotted and may or may not be within the Project Site. There is no accession record or description of the localities or contained fossils at the Los Angeles County Museum. No fossils were observed within the Quaternary terrace deposits or other alluvial deposits during the 1994 walkover survey.

### 3. ENVIRONMENTAL IMPACTS

#### a. Methodology

This EIR's assessment of project impacts on potentially significant cultural resources is based on the Phase I Archaeological Survey and the Phase II Test Excavation prepared by W & S Consultants in 2014, provided in **Appendices 5.5B and 5.5C**, respectively, of this Draft EIR. The Phase I Archaeological Survey included a survey of the Project Site as well as a review of written and unpublished documents regarding the archaeology, history, and ethnography of the region. A Phase II Test Excavation was performed to determine whether or not surface or subsurface archaeological remains related to Site No. 19-000961 were present within the Project Site. The Phase II Test Excavation included subsurface testing of two one-by-one-meter test units and four auger borings, as well as intensive surface examination of the portion of the Project Site in the vicinity of Site No. 19-000961. The impact analysis is also based on NAHC's Sacred Lands File search, and consultation with the Native American tribes.

The analysis of potential impacts to paleontological resources is based on the Paleontological Assessment prepared by John Minch and Associates, Inc., provided in **Appendix 5.5F** of this Draft EIR. This assessment included a walkover of the Project Site, literature review, record searches at the Los Angeles County Museum and the University of California Berkeley Museum of Paleontology, and review of the geotechnical reports relevant to the Project Site.

## **b. Proposed Design Elements/Project Design Features**

No specific Project design features (PDFs) are proposed with respect to cultural and paleontological resources beyond the Project characteristics described in **Section 3.0**, Project Description, of this Draft EIR. However, the following information regarding Project construction activities is included herein to provide context for the analysis below. Project grading would require the removal and recompaction of approximately 7.8 million cubic yards of existing material in a balanced cut and fill operation. In addition, remedial grading of approximately 2.0 million cubic yards of material may be required depending upon site-specific soils and future geotechnical investigations. Additional fine and custom grading may also be required depending upon final building plans. The detailed subset maps of VTTM 53295, provided within **Appendix 3** of this Draft EIR, depict the Project's grading plan and contours.

As discussed below, the Project will not disturb or otherwise adversely affect any known historic site or unique archaeological resource, as those terms are defined under CEQA. Therefore, as indicated, the Project does not require or contemplate design elements or features intended to avoid any historic site or unique archaeological resource.

## **c. Significance Thresholds**

Based on Appendix G of the CEQA Guidelines and other relevant criteria, the Los Angeles County Department of Regional Planning has determined that a project would have a potentially significant impact related to cultural and paleontological resources based on the following criteria:

**Threshold 5.5-1:** Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

**Threshold 5.5-2:** Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

**Threshold 5.5-3:** Would the Project directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?

**Threshold 5.5-4:** Would the Project disturb any human remains, including those interred outside of formal cemeteries?

**Threshold 5.5-5:** Is the Project Site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) that indicate potential archaeological sensitivity?

**Threshold 5.5-6:** Does the Project Site contain known historic structures or sites?

**d. Project Impacts**

**Threshold 5.5-1:** Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

**Threshold 5.5-2:** Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

**Threshold 5.5-5:** Is the Project Site in or near an area containing known archaeological resources or containing features (drainage course, spring, knoll, rock outcroppings, or oak trees) that indicate potential archaeological sensitivity?

**Threshold 5.5-6:** Does the Project Site contain known historic structures or sites?

Project impacts with respect to Thresholds 5.5-1, 5.5-2, 5.5-5 and 5.5-6 are addressed in the following combined analysis since these criteria relate to cultural resources.

As previously discussed, three archaeological sites and one aboveground historic resource have been recorded within a 0.5-mile radius of the Project Site. Of these, only Site No. 19-000961 is located within the Project Site. Site No. 19-000961 is the original Newhall Ranch headquarters. It is located under the Six Flags Magic Mountain parking lot and an adjacent paved road. The original Victorian era house was moved from this location to the community of Piru when Six Flags Magic Mountain was developed. Based on testing conducted as part of the Phase II Test Excavation, no subsurface remains associated with Site No. 19-000961 or any other existing archaeological remains were found within the Project Site. Rather, the native soils within the northern portion of the Project Site were found to be largely undisturbed.

The numerous studies conducted for the Project Site, including the W & S survey in 2014, found no other archaeological resources within the Project Site. Nonetheless, the potential exists for unearthing archaeological resources during excavation and grading activities. As such, construction activities associated with the Project could result in a potentially significant impact.

**Threshold 5.5-3:** Would the Project directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?

As discussed above, based on a review of the Los Angeles County Museum and University of California Berkeley Museum of Paleontology records, fossil lists, published and unpublished literature, walkovers of the Project Site by John Minch and Associates, Inc. in September 2013 and by RMW Associates in 1994, no known paleontological resources are located within the Project Site. However, as discussed above, several of the rock units underlying the Project Site include formations with moderate to high paleontological sensitivity. Thus, grading and excavation in conjunction with Project construction would have a high potential to adversely impact significant paleontological resources that may be present within the boundaries of the Project Site.

**Threshold 5.5-4:** Would the Project disturb any human remains, including those interred outside of formal cemeteries?

None of the cultural resource surveys of the site, including those conducted by W & S in 2014, located any human remains, whether interred inside or outside formal cemeteries. Likewise, the Sacred Lands File search performed by the NAHC did not identify any known Native American cultural resource within the Project Site, and did not indicate that human remains were buried anywhere on the Project Site.<sup>13</sup> However, the Tataviam have indicated that the Project Site is located on traditional Tataviam tribal lands and could disturb culturally sensitive deposits, including human remains. Thus, if human remains are discovered during construction activities associated with development of the Project, a potentially significant impact could occur.

#### 4. CUMULATIVE IMPACTS

The geographic context for the cumulative impact analysis of historic, archaeological, and paleontological resources is the general Project vicinity, as such impacts are typically localized. The related projects considered in this analysis are identified in **Table 4.2-1**, Related Projects, and **Figure 4.2-1**, Related Projects Map, in **Section 4.2**, Cumulative Impact Analysis Methodology, of this Draft EIR.

##### a. Historic Resources

Although impacts to historic resources tend to be site-specific, the analysis of cumulative impacts to historic resources is based on whether the impacts of the Project and other related projects in the vicinity, when taken as a whole, would substantially diminish the number of historic resources within the same or similar context or property type. Specifically, cumulative impacts involve projects affecting local resources with the

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<sup>13</sup> *Written communication with Dave Singleton, Program Analyst, Native American Heritage Commission, July 21, 2010. See Appendix 5.5A of this Draft EIR.*

same level or type of designation or evaluation, projects affecting other structures located within the same National Register district, or projects that involve resources that are significant within the same context as resources associated with the Project. As discussed above, there are no above-ground historic resources within the Project Site. Thus, the Project would not contribute to cumulative impacts to such historic resources and no significant cumulative impacts would occur.

#### **b. Archaeological and Paleontological Resources and Native American Remains**

The Project in combination with cumulative development in the Valley would likely contribute to the loss of undeveloped land, which could potentially contain archaeological or paleontological resources or Native American remains. Determinations regarding the significance of impacts of the related projects on archaeological and paleontological resources and Native American remains would be made on a case-by-case basis and, if necessary, the applicants of the related projects would be required to implement appropriate mitigation measures and regulatory requirements. Furthermore, as set forth below, the Project's potential impacts associated with archaeological and paleontological resources would be less than significant with the implementation of the recommended mitigation measures. In addition, implementation of the recommended mitigation measures would ensure that potential Project-related impacts associated with Native American remains would be less significant. Therefore, no significant cumulative impacts associated with archaeological and paleontological resources and Native American remain would occur, and the Project's contribution to cumulative impacts would be less than significant.

### **5. MITIGATION MEASURES**

#### **a. Newhall Ranch RMDP/SCP Mitigation Measures**

CDFW previously adopted mitigation measures to minimize impacts to cultural and paleontological resources in connection with its adoption of the Newhall Ranch RMDP/SCP EIS/EIR. Several of the RMDP/SCP mitigation measures also apply to the Project. If the status of the RMDP/SCP EIS/EIR is unresolved or set aside in the pending litigation at the time the County considers the Project EIR for certification, this EIR recommends that the County adopt the companion Entrada South (ES) mitigation measures set forth below, as applicable, to mitigate the Project's significant cultural and paleontological resources impacts. Those RMDP/SCP mitigation measures that are not applicable to the Project are listed in **Appendix 2B** with an explanation as to why they do not apply. Any italicized text provided in the parentheses below provides necessary updated information and/or clarifications, as needed.

**MM ES 5.5-1/RMDP/SCP CR-3:** Pursuant to the requirements of the Tataviam Agreement, a qualified archaeologist and a Native American monitor shall monitor all earth disturbances, including scarification and placement of fill, within 300 feet of any known archaeological site. If archaeological discoveries are made, earth disturbing activities will be diverted to other locales while the archaeological resources are exposed, mapped, evaluated, and recovered, as appropriate. (*Specific to the Project, steep slopes that have no potential for the presence of cultural remains shall not require monitoring.*)

**MM ES 5.5-2/RMDP/SCP CR-4:** During any earth disturbance within 300 feet of any known archaeological site, the area of the site and a 50-foot buffer shall be temporarily fenced with chain link flagged with color to ensure construction avoidance.

**MM ES 5.5-3/RMDP/SCP CR-5:** In the event that cultural resources are encountered during grading anywhere in the Project area, work shall be stopped immediately or redirected until a qualified archaeologist and Native American representative pursuant to the requirements of the Tataviam Agreement are retained by the applicant to evaluate the eligibility of the resources pursuant to CRHR and NRHP criteria. If the remains are found to be significant, they shall be subject to a Phase III data recovery mitigation program consistent with federal, state, and county guidelines and funded by the applicant to the extent allowed by law (see, Pub. Resources Code § 21083.2).

**MM ES 5.5-4/RMDP/SCP CR-6:** If, during any phase of Project construction, there is the discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps, which are based on Public Resources Code section 5097.98 and State CEQA Guidelines section 15064.5(e), shall be taken:

1. There will be no further excavation or disturbance of the site or any nearby area reasonably susceptible to overlying adjacent human remains until:
  - a. The Los Angeles County Coroner is contacted to determine that no investigation of the cause of death is required; and
  - b. If the Coroner determines the remains to be Native American:
    - (i) The Coroner shall contact the Native American Heritage Commission within 24 hours;
    - (ii) The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendant from the deceased Native American; and
    - (iii) The most likely descendent may make recommendations to the Project applicant for means of treating or disposing of, with appropriate dignity, the human remains and any

associated grave goods as provided in Public Resources Code section 5097.98, or,

2. Where the following conditions occur, the Project applicant, or its designee, shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance:
  - a. The Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified by the Commission;
  - b. The descendant identified fails to make a recommendation; or
  - c. The Project applicant, or its designee, rejects the recommendation of the descendant, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the Project applicant.

**MM ES 5.5-5/RMDP/SCP PR-1:** A qualified paleontologist shall be retained to monitor and salvage scientifically significant fossil remains. The duration of these inspections depends on the potential for the discovery of fossils, the rate of excavation, and the abundance of fossils.

- (a) The Saugus and Pico Formations have a high potential to yield paleontological resources and will require continuous monitoring during all grading activities. This may require use of multiple paleontologists working on the site at the same time if simultaneous ground disturbing activities are occurring over an extensive area to assure all areas of excavation are being fully monitored for the presence of paleontological resources. The number of required monitors shall be determined by Project's monitoring paleontologist.
- (b) The older dissected Pleistocene formations have a moderate potential to yield paleontological resources and will require halftime monitoring during all grading activities by a qualified paleontologist(s).

Because of the large size and long duration of this Project, it will be necessary to periodically review the paleontological potential assigned to each rock unit. This shall be done at the end of each phase of grading. This reassessment of potential will be used to develop mitigation plans for future phases of development. If fossil production is lower than expected, the duration of the monitoring efforts should be reduced to less than continuous monitoring during all grading activities.

**MM ES 5.5-6/RMDP/SCP PR-2:** The paleontologist, in consultation with the grading contractor, developer, and Los Angeles County inspector, shall have the power to divert temporarily or direct grading efforts in the



area of an exposed fossil to allow evaluation and, if necessary, salvage of exposed fossils.

**MM ES 5.5-7/RMDP/SCP PR-3:** Microinvertebrates are known to exist in the Saugus Formation within the Project area. Samples of the Saugus Formation rock units shall be collected periodically as directed by the Project paleontologist. Appropriate materials for collection are samples of at least 2,000 pounds of rock from likely horizons identified by the Project paleontologist. These samples can be stockpiled (to allow for processing at a later time) to avoid delays in grading activities. The representative rock samples shall be analyzed by a qualified paleontologist for data collection purposes. Based on the results of initial evaluations, the number of collection samples in subsequent grading phases may be increased or decreased as deemed appropriate by the Project paleontologist.

**MM ES 5.5-8/RMDP/SCP PR-5:** Scientific specimens are to become the property of a public, nonprofit educational institution, such as the Los Angeles County Museum of Natural History (or similar institution). Most institutions are now requiring, as conditions for accepting the materials, that significant fossils be prepared, identified to a reasonable level, and catalogued before donation. Therefore, to meet these requirements, prior to the start of Project-related grading, an agreement shall be reached with a suitable scientific repository regarding acceptance of the fossil collection.

**MM ES 5.5-9/RMDP/SCP PR-6:** Locations of recorded fossil deposits shall remain confidential and shall be disclosed to qualified paleontologists or other qualified individuals on a “need to know” basis.

**MM ES 5.5-10/RMDP/SCP PR-7:** To assure compliance with the Los Angeles County guidelines and CEQA, a final report summarizing the results of the mitigation efforts is necessary. To adequately report the results of the mitigation efforts, the report shall include: (1) an itemized inventory of the fossils; (2) pertinent geologic and stratigraphic data; (3) field notes of the collectors; and (4) indication of the repository. Because the Newhall Ranch Specific Plan and the VCC and Entrada planning areas will be developed in phases, a final report shall be prepared at the end of the grading activities associated with each phase of development. This report shall provide the information necessary to reassess the paleontological potential of each rock unit graded and shall include recommendations for future monitoring efforts in those rock units.

**b. Entrada South Project-Level Mitigation Measures**

In addition to the measures listed above, the following mitigation measure would be implemented to clarify and supplement the paleontological monitoring to be conducted per MM ES 5.5-5/RMDP/SCP PR-1:

**MM ES 5.5-11:** A Paleontological Resource Mitigation Monitoring Implementation Plan (PRMMIP) shall be implemented during construction activities. Consistent with the Los Angeles County guidelines for paleontological resources, CEQA guidelines for the protection of scientific resources and the proposed guidelines of the Society of Vertebrate Paleontology, measures that shall be implemented as part of the PRMMIP will include the following:

- A qualified vertebrate paleontologist (Project Paleontologist) with a Masters or higher degree in geology shall be retained to direct full-time paleontological monitoring by qualified experienced paleontological monitors during excavations in areas underlain by geologic units identified as having a moderate or high paleontological sensitivity and likely to contain paleontological resources. The number of qualified monitors shall be determined by the Project's monitoring paleontologist. Areas of high concern include all previously undisturbed paleontological sensitive sediments of the fossiliferous Plio-Pleistocene Saugus Formation, Quaternary Terrace Deposits, and Quaternary Alluvium. Monitoring shall consist of visually inspecting fresh exposures of rock for fossil remains large enough to be seen and, where appropriate, collecting and processing rock samples or excavated spoils to allow for the recovery of smaller fossil remains that are too small to be seen in the field.
- Excess matrix shall be removed from recovered specimens and they shall be prepared to a point of identification. Significant and scientifically valuable specimens shall be permanently preserved.
- Preliminary Identification of specimens, cataloging, curation, and accessioning of significant fossil remains recovered in the field into the fossil collections of the Natural History Museum of Los Angeles County shall be completed. Accompanying specimen and site data, notes, maps, and photographs also shall be archived at the repository.
- The Project Paleontologist shall comply with the in place written repository accession agreement with the Los Angeles County Museum. Mitigation of adverse impacts to significant paleontological resources is not complete until such curation into an established museum repository has been fully completed and

documented. Locations of recorded fossil localities shall remain confidential and shall be disclosed only on a “need to know” basis.)

## 6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of MM ES 5.5-1/RMDP/SCP CR-3, the Project Applicant would be required to retain a professional archaeologist and a Native American monitor to monitor ground disturbing activities within the Project Site. In addition, in accordance with MM ES 5.5-3/RMDP/SCP CR-5, in the event that cultural resources are encountered during grading, fencing shall be placed around the discovered site and work shall be stopped immediately and/or redirected until the qualified archaeologist and Native American representative evaluates the eligibility of the resources. This mitigation measure is also consistent with the terms of the Tataviam Agreement, which requires the Project Applicant to use Tataviam tribal members to monitor all grading activities. With implementation of MM ES 5.5-1/RMDP/SCP CR-3, MM ES 5.5-3/RMDP/SCP CR-5, and the Tataviam Agreement, potential impacts associated with any substantial adverse change to the significance of an archaeological resource would be less than significant.

As described above, grading and excavation in conjunction with Project construction would have a high potential to adversely impact significant paleontological resources that may be present within the boundaries of the Project Site. Implementation of MM ES 5.5-5/RMDP/SCP PR-1 through MM ES 5.5-7/RMDP/SCP PR-3, MM ES 5.5-8/RMDP/SCP PR-5 through MM ES 5.5-10/RMDP/SCP PR-7, and MM ES 5.5-11 would require a number of measures to address the potential for uncovering paleontological resources. In particular, MM ES 5.5-11 requires the preparation of a PRMMIP that would include: monitoring of excavations in areas underlain by geologic units with moderate or high paleontological sensitivity; halting or diverting construction activity to allow for removal; sampling for micro-vertebrates; preservation of recovered fossils; curation with an educational repository; and preparation of a final report. A draft of the PRMMIP is included in the Paleontological Assessment. With implementation of the proposed mitigation measures, potential impacts associated with paleontological resources would be less than significant.

As discussed above, none of the cultural resource surveys of the site located any human remains. Likewise, the Sacred Lands File search performed by the NAHC did not identify any known Native American cultural resource within the Project Site and did not indicate that human remains were buried anywhere on the Project Site. However, the Tataviam have indicated that the Project Site is located on traditional Tataviam tribal lands and could disturb culturally sensitive deposits, including human remains. To address this contingency, the Applicant would be required to implement MM ES 5.5-4/RMDP/SCP CR-6, which is designed to ensure that if human remains are encountered during project construction, the contractor would stop work and the Project Applicant would notify the Los Angeles County Coroner. The coroner would determine whether the remains are Native

American and, if so, contact the NAHC, which would then identify the person or persons it believes to be the most likely descendant of the deceased. The most likely descendent may make recommendations to the Project Applicant for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. In addition, with implementation of MM ES 5.5-3/RMDP/SCP CR-5, in the event that cultural resources are encountered during grading anywhere in the Project Site, work shall be stopped immediately or redirected until a Native American representative pursuant to the requirements of the Tataviam Agreement is retained by the Project Applicant to evaluate the eligibility of the resources. Therefore, with implementation of MM ES 5.5-4/RMDP/SCP CR-6 and MM ES 5.5-3/RMDP/SCP CR-5, potential impacts related to the disturbance of human remains would be less than significant. This mitigation approach is also consistent with the Tataviam Agreement.

With implementation of the identified mitigation measures, the Project's individual and cumulative impacts on cultural resources and paleontological resources would be less than significant.