

V.G. CULTURAL AND PALEONTOLOGICAL RESOURCES

The information summarized in this section is derived from several technical reports. These reports include the *Archaeological Survey Report, Willow Road Extension Project* (Pletka and Pletka 2003); the *Historical Resources Evaluation Report, Willow Road Extension Project* (Marvin 2004); the *Paleontological Resources Review, Willow Road Interchange* (Reynolds 2005); and the *Supplementary Phase I/Phase II Testing Report, Willow Road Extension Project* (Strudwick, et. al. 2005). The reports provide full descriptions and evaluations of the cultural resources found within the project area. All reports are on file with the County. In addition, the *Supplementary Phase I/Phase II Testing Report, Willow Road Extension Project* and the *Paleontological Resources Review, Willow Road Interchange* can be found in Volume III, Appendices G and H.

1. Existing Conditions

Physical Setting. The project area is situated at the boundary between Nipomo Mesa, located to the west of US 101, and Nipomo Valley, which lies to the east of US 101. Strong westerly winds blowing from the ocean have created large coastal dune fields, of which one is the Nipomo Dunes. Nipomo Mesa is among the oldest and largest portion of the Nipomo Dunes, which extends approximately 16 km (10 miles) along the coast from Oceano south to Pt. Sal, and about the same distance inland to the Nipomo area. The Nipomo Mesa dunes have been stabilized by vegetation for approximately 10,000 years (Sharp and Glazner 1993) and since then have been greatly weathered. This region once supported a number of Pleistocene animals and Paleontological resources are known from the Pleistocene portion of the Nipomo Dune Complex. Nipomo Creek runs through the valley along the base of the slope leading up to the Mesa. Several smaller creeks drain through the valley into Nipomo Creek.

Flooding, wind erosion, and similar processes have influenced the visibility of archaeological sites and historic settlement. Periodic flooding of the drainages in Nipomo Valley, for example, could have buried archaeological sites. Since the dunes of the Nipomo Mesa have been stable for most of the time period that humans occupied the coast, most archaeological sites within the Nipomo Mesa region are thought to lie at or near the surface, whereas paleontological resources occur in deeper sediment. Occasionally, however, Pleistocene sediment is bisected by channels such as Nipomo Creek, which exposes fossils.

Landform and habitat in the area also influenced how humans settled and used the region. Since water is a limiting resource for settlement in the region, Nipomo Creek and its tributaries probably served as important focal points for early settlement. In the transitional zone between Nipomo Mesa and Nipomo Valley, the oak and grassland communities provided a variety of important food resources such as acorns, seeds, and game animals such as deer, rabbit, and other small rodents.

Historic and recent uses of the region reflect variation in landform. The sandy sediment of Nipomo Mesa is not optimal for growing many crops, but is suitable for cattle grazing. The alluvial sediment of Nipomo Valley east of Nipomo Creek is suitable for farming. The prehistory and history of the region attests to the effects of changing environmental conditions on the economic and social adaptation of the local residents.

Prehistoric Setting. Changing conditions during the past 10,000 years provided both opportunities and constraints to local settlement. The first settlement in California occurred as the previous Ice Age

ended approximately 10,000 years ago. The descendants of this initial colonization may have lived in the region through the time of European contact (Golla 2004). Prior to roughly 6,650 years ago, inhabitants of coastal California relied heavily on marine resources and seeds (Greenwood 1972; Jones et al. 2002; Rick et al. 2001). Rising sea level following the end of the Ice Age created productive estuarine environments along which these groups often clustered. The local inhabitants possessed a way of life quite distinct from contemporaneous big-game hunters of the Great Plains. Between 6,650 and 3,350 years ago, sea level rise slowed, estuaries shrank, and the climate grew drier. In order to survive, coastal groups changed their subsistence focus, and this is reflected in technological changes (Glassow et al. 1988; Glassow 1991, 1996). Groups gathered acorns and hunted more big-game animals. Between 6,650 and 1,000 years ago, population levels fluctuated. Extended drought and other environmental changes caused the abandonment of many central California coastal sites by AD 1300 (Jones and Fernau 2004). Human groups began to rely more on terrestrial resources, and settlements were found more often at inland localities. Population levels nevertheless peaked prior to the initial European settlement in 1772.

Ethnographic Setting. At the time of European contact, the Chumash inhabited the project area. The Chumash occupied the California coast from Malibu north to Estero Bay and San Luis Obispo, the adjacent inland region east to the edge of the Central Valley, as well as the northern Channel Islands (Kroeber 1925:551). The Chumash language is from the Hokan language family and is similar to Salinan, Pomo, Washo, Yana, Shasta, and Karok groups to the north, and to Yuman groups to the south. The Takic, or “Shoshonean” language group to the south separates the Chumash from the Yuman, while to the north the Penutian language group separates the Chumash from the northern Hokan speakers.

The word “Nipomo” is from the Obispeño Chumash word *nipumu*, meaning house place, or village (Gudde 1998:262). The Rancho Nipomo land grant was near the Chumash rancheria, Nipomo, mentioned in the records of La Purisima Mission between 1799 and 1822 (Gudde 1998). The proposed project is located on land once part of Rancho Nipomo.

So few Chumash remained when ethnographic information was being recorded that much of what was once common knowledge was never recorded. As Kroeber (1925:550) states: “There is no group in the State that once held the importance of the Chumash concerning which we know so little.” What is known about the Chumash is that they were hunter-gatherers who moved between summer and winter residences. They were also known to have relied on flexible social ties to adapt to their environment and to limited differences in status and authority. The rough coast of the region north of Point Conception prevented the local Chumash from using plank canoes, one of the major technological achievements for which they are known in the Santa Barbara area.

Historic Setting. Like the local Chumash, European settlers faced environmental and social challenges after they arrived in the region. Periodic drought had a particularly devastating impact on these settlers. The historical and archaeological record attests to the success of settlers in the area in responding to environmental challenges.

European settlement of the area began in earnest with the establishment of the first local mission in San Luis Obispo in 1772. The missions formed part of Spain’s strategy for ensuring its control of Alta California, an area which roughly encompasses the modern California coast. Over the next 70 years, the missions of San Luis Obispo County developed successful ranching and farming operations,

although they failed to create a viable community of converts among the local native groups. The Spanish Mission period ended when Mexico won its independence from Spain in 1821.

The Mexican government acted quickly to undermine the power and wealth of the California missions by granting their property to private landowners, instead of to the natives who were supposed to inherit the land and property. Between 1833 and 1846, Mexican governors distributed approximately 700 land grants in California (Cleland 1975). It was during this time that William G. Dana, an American sea captain and cousin of author Richard Henry Dana, married Maria Carrillo and eventually became a Mexican citizen. In 1837, he was granted the 11 square league (37,888 acre) *Rancho Nipomo* by Mexican Governor Juan Bautista Alvarado (McK.Shumway 1988:80; Dana and Harrington 1999). In 1868, the United States patent, or rights to this grant, was also made to William G. Dana. The Willow Road project area is located within a portion of what was once *Rancho Nipomo*.

Cattle, and later sheep, were raised on the ranch, which survived turbulent times. The ranch withstood the decline of the cattle market in the 1850's, the floods and droughts of the 1860's, collapse of the wool market in the 1870's, and the drought years of the 1870's.

After 1881, however, Dana's heirs granted permission for the Pacific Coast Railroad to build a track across the rancho lands and sold various portions of the ranch to other individuals (Dana and Harrington 1999; Nicholson 1993). Some of the smaller lots near the rail line became part of the town of Nipomo, which was laid out in 1889 (Gudde 1998:262). The construction of the rail line composed part of a flurry of construction that created a solid transportation infrastructure linking the northern and southern ends of the county and providing access to sea transport.

Despite this development, agriculture was still the dominant economic activity, and is still a major economic force today. Bean farming briefly flourished on the Nipomo Mesa during the First World War (Krieger 1990). The federal government bought these hardy staples in order to feed its allies. Currently, however, citrus orchards, vegetable farms, and cattle ranches can be found around Nipomo.

Methods for Identification of Existing Cultural Resources. Research for the proposed project occurred in several stages. In the first stage, background research was conducted to determine the extent of previous work within the project area. A record search was conducted at the Central Coastal Information Center (CCIC) of the California Historical Resources Information System at the University of California, Santa Barbara, on June 6, 2003. CCIC staff provided documentation of all recorded historic and prehistoric cultural resource sites within a one-mile radius of the project area, as well as a review of known cultural resource survey and excavation reports. In addition, CCIC staff examined the National Register, California Register of Historic Resources (California Register), California Historical Landmarks, and California Points of Historical Interest listings for listed sites within the project area. They also inspected the Historic Properties Directory for the project area.

As part of the background research for this project, consultation was conducted with local Native Americans regarding this project. The following individuals and groups were contacted: Chief Joseph Ballesteros, Chumash/Salinan; Beverly Salazar Folkes, Chumash/Tataviam/Fernandeño; Santa Ynez Band of Mission Indians, Chumash; Puilulaw Khus, Chumash; Julie Lynn Tumamait, Chumash; Lei Lynn Odom, Northern Chumash Council; Chief Mark Steven Vigil, San Luis Obispo County Chumash Council; Peggy Odom, Chumash; Diane Garcia Napoleone, Chumash; Santa Ynez Tribal

Elder's Council, Chumash; Randy Guzman-Folkles, Chumash/Tataviam/ Fernandeno/Shoshone Paiute/Yaqui; and Mary E. Trejo, Chumash. Several of these contacts recommended that Native Americans be present to monitor ground-disturbing activities within the project area. They did not, however, have any specific concerns about the project.

The background research identified 21 archaeological sites within one mile of the project area. Of these resources, four sites—CA-SLO-1319H, CA-SLO-1620, CA-SLO-1767, and CA-SLO-2133—exist in the project limits. These four sites have also been the subject of evaluation during the course of environmental review for other development projects in the area.

In the second stage, an intensive pedestrian survey of the maximum project limits and a 200 ft (61 m) buffer was conducted. The pedestrian survey was conducted between August 20 and 25, 2003. This survey encompassed the entire project limits. While the survey examined the surface for traces of cultural resources including archaeological and historic sites, sites could have been buried by locally shifting sands within Nipomo Mesa. In order to identify buried sites and the potential for buried sites, on January 25, 2005 a series of three backhoe trenches was excavated in the interchange portion of the project just west of US 101. The potential for buried resources was based on the degree of sediment development and sediment stability evident in the trench profiles.

These survey methods found a number of cultural resources within and adjacent to the project limits. The location of three of the four previously identified cultural resources (CA-SLO-1319H, CA-SLO-1620, and CA-SLO-1767) was successfully confirmed, but the survey did not confirm the location of CA-SLO-2133. CA-SLO-2133 is buried just below the modern ground surface by the sands of Nipomo Mesa (Gibson and Parson 1997). Geoarchaeological backhoe trenching indicated sediment has been stable within the project limits for at least 10,000 years, indicating that sites buried deeper than 1.8-2.4 meters (6-10 ft) are unlikely to exist in this area. Within the boundaries of the project limits, one new archaeological site, CA-SLO-2271, was found. A 1950's-era home was also identified in the vicinity of the project. Previous research at several of the archaeological sites have already evaluated their significance. When necessary, additional research was conducted to determine the significance of the other resources.

Evaluation of Cultural Resources. CA-SLO-1319H is the remains of the Pacific Coast Railroad railbed. This site occurs at the eastern edge of Nipomo Mesa. JRP Historic Consulting Services (JRP) evaluated a different section of the same railroad berm and found it ineligible for listing on the National Register and the California Register (JRP 1997). JRP found the specific section of railroad berm under study to lack integrity of setting, design, materials, workmanship, feeling, and association. They also noted that lack of integrity appears to exist for the entire railroad alignment (JRP 1997:12). During the course of the survey conducted for this project, archaeologists observed the berm but found no ties or spikes, and they did not find any other archaeological remains associated with the railroad (Pletka and Pletka 2003). A pipeline has been constructed down the center of the berm. The segment of the railroad berm within the project area is lacking in integrity. It does not appear to be eligible for listing on the California Register, so it does not appear to be an historical resource for the purposes of CEQA (Marvin 2004).

CA-SLO-1620 also occurs near the eastern edge of Nipomo Mesa. Gibson and Parson (1997) excavated 20 shovel test pits (STPs) across the site and one test excavation unit. This site consists of a dense concentration of lithics and is evidence for on-site production of stone tools made of Monterey

chert. These artifacts indicate that tool makers engaged in the early stages of manufacture for projectile points and knives. Some fire-altered rock and ground stone, such as lightly used manos, have also been found at the site. Artifacts were found to a depth of over one meter below the current ground surface, and exist in an area measuring 90x70 m (295x230 ft) with greatest length in the northwest to southeast direction. Based on the test excavation results, Gibson and Parson (1997) concluded that the site could address important research questions related to such topics as subsistence, settlement, and exchange. This site is eligible for listing on the California Register (Gibson and Parson 1997).

Gibson and Parson's (1997) determination of site eligibility at CA-SLO-1620 was based on quantities of lithic debitage, flaked and ground stone tools, fire-affected rock, bone, shell, and charcoal fragments from what was referred to as the "medium-high" density 90x70 m area of the site. In peripheral areas of the site to the south and west, only small quantities of lithic debitage were found in "medium-low-trace" density areas. Medium-low-trace density areas lacked material other than a few flakes, and one burned rock found near the high density area. Importantly, the high density area on which the determination of site importance was based is located north and outside of the current ADI, far north of the northern fence line of C&M Nursery.

CA-SLO-1767 lies within Nipomo Valley. Modern agricultural plowing has disturbed the site, but previous excavations at this site revealed a fairly deeply buried archaeological deposit (Lebow et al. 2001). Most artifacts occurred within the upper 40 cm of the archaeological deposit, but artifacts could be found to depths of 80 cm below the modern ground surface. The site contains a moderate density of Monterey chert debitage, flake stone tools, and ground stone tools. As at CA-SLO-1620, evidence for on-site early stage stone tool manufacture dominates the artifact assemblage. The site covers an area of approximately 8,000 square meters. Based on obsidian hydration dating of seven obsidian flakes, derived from the on-site maintenance of obsidian tools, the site was provisionally dated to the Early Period. A reanalysis of this collection by LSA archaeologists determined that the site is exactly what Lebow et al. (2001) described: a short term camp where tool makers engaged in core reduction for the production of simple flake tools. The absence of a variety of material types, including datable archaeological material, indicates that the site does not have sufficient research potential to make it important. As such, Lebow et al.'s (2001:10.18) original recommendation is valid and the site is not eligible for listing on the California Register.

CA-SLO-2133 is situated near the eastern end of Nipomo Mesa. Gibson and Parson (1997) excavated 20 STPs and two 1x1 m test excavation units at the site. The site is a prehistoric stone artifact scatter measuring 180x80 m (590x262 ft) with greatest length in the north-south direction, and maximum midden depth of one meter below current ground level. The site contains low densities of Monterey chert debitage and some fire altered rock. The debitage indicates that late-stage stone tool production occurred at SLO-2133, later than the initial stage suggested by debitage from SLO-1620 and CA-SLO-1767. Site CA-SLO-2133 may have been a seasonal camp. Based on the test excavation results, Gibson and Parson (1997) concluded that the site could address research questions related to such topics as subsistence, settlement, and exchange. This site is eligible for listing on the California Register (Gibson and Parson 1997).

CA-SLO-2271 lies within Nipomo Mesa. The site consists of at least 11 fragments of legal-sized Pismo clam. The site measures 47x17 m (154x55 ft) with greatest length in the northwest to southeast direction. As part of the research for this EIR, a single large fragment of shell submitted for

radiocarbon analysis resulted in a date of what can be inferred to be ca. 1910, indicating that it was deposited historically. Because the site contains nothing aside from a few pieces of historically deposited clam shell, it exhibits extremely limited research potential and cannot help us to answer important research questions. Thus, the site was determined not to be a unique archeological resource and is therefore, not eligible for listing on the California Register.

A home built in 1952, located at 1112 Pomeroy Road, occurs close enough to the project that potential project impacts to its significance were considered here. This home, while in excellent condition, is a typical California Ranch-style building. Because the building lacks association with significant people or events, is not the work of a master, and will not provide important data relevant to history, it is not an historical resource.

Evaluation of Paleontological Resources. A paleontological literature and record search of the Santa Maria – Nipomo Valley area shows that Pleistocene sediment occurs in and near the project site. This record search also indicated that four fossil localities in the Nipomo area contain late Pleistocene fossils of mammoth, mastodon, and horse. These fossils were all found within 3.2 km (2.0 miles) of the current project.

2. Thresholds of Significance

Criteria for determining the significance of impacts to cultural resources is based on the CEQA Guidelines, the County of San Luis Obispo's Initial Study Checklist, and the Guidelines for nomination of resources to the California Register of Historical Resources. Impacts to cultural and paleontological resources are considered potentially significant if any of the following conditions occur.

- The project disturbs pre-historic resources;
- The project disturbs historic resources;
- The project disturbs any human remains, including those found outside formal cemeteries;
- The project disturbs paleontological resources.

3. Project Impacts

The proposed project will impact a number of cultural resources. While Pleistocene fossils were found within 2 miles of the current project, no known paleontological resources are known to be within the project limits. The records search, review of geologic literature, and the geoarcheological trenching conducted in January 2005, however, indicates that the Willow Road Interchange and Road Extension Project is located on Pleistocene sediments that have a high potential for containing remains of vertebrate fossils at depths below six feet. Therefore nonrenewable paleontological resources could be impacted by project related excavation, particularly at depths below six feet. With implementation of Mitigation Measure G-6, impacts to paleontological resources will be reduced to a level that is less than significant.

Some or all of CA-SLO-1319H, CA-SLO-1620, CA-SLO-1767, CA-SLO-2133, and CA-SLO-2271 lie within the current project limits. Some or all of these sites could be damaged or destroyed by

construction of the proposed project. The nature of impacts does not depend on the construction phase in which they occur.

The project will impact a portion of CA-SLO-1319H, the remains of the Pacific Coast Railroad rail bed. This site, however, is neither an historic resource nor a unique archaeological resource. Consequently, impacts to this site would be less than significant.

The project will impact a portion of CA-SLO-1620. Portions of this site qualify for the California Register but the portions of the site to be impacted during construction do not contribute to its eligibility. Previous testing at this site indicates that the archaeological deposit is sparse in this area, containing little data. Previous determination of site importance was based on an area that is located well outside the project limits. If project work is limited to the western margin of the site impacts to CA-SLO-1620 would be less than significant. Implementation of Mitigation Measure G-1, which requires preparation and execution of an archaeological monitoring plan, will ensure that project construction would not impact the important portions of the archaeological site.

CA-SLO-1767 is not considered to be significant under CEQA because of the results of the reanalysis of lithic artifacts from a previously excavated collection, as well as because the site lacks a variety of material types, including datable material. The site will be completely impacted by proposed construction, but impacts will not be significant since the site is not an important historic resource.

CA-SLO-2133 will be impacted during construction of the project facilities. Consequently, impacts to this site are potentially significant, because the site is considered eligible for listing on the California Register. Impacts to the site can be reduced to a less than significant level with the implementation of Mitigation Measure G-2, a data recovery plan.

The proposed project will impact a portion of CA-SLO-2271. This site does not meet the criteria for listing in the California Register. Projects impacts are therefore less than significant.

The proposed project will have no physical impacts on the house built in 1952 at 1112 Pomeroy Road. The project could, however, have an indirect impact on the visual setting of this house, but this house was determined not to be an historical resource for the purposes of CEQA. Consequently, potential project impacts to this resource are also less than significant.

Besides impacts to known cultural resources, this project also has the potential to impact cultural resources that have not been discovered during the course of previous archaeological surveys, including those conducted specifically for this project. The project occurs in an environmental setting that is quite likely to contain cultural resources. Such resources could have escaped detection because they have been buried by geomorphic processes like flooding or shifting dunes. The intensity of previous investigations within the project area makes the probability of such discoveries relatively low. Impacts resulting from unanticipated discoveries can be reduced to a less than significant level with the implementation of Mitigation Measures G-1, G-3, G-4, and G-5 as prescribed below in Section 5.

4. Cumulative Impacts

The cumulative study area for cultural resources includes areas adjacent to the boundary between Nipomo Mesa and Nipomo Valley, where similar resources are likely to be found. The cumulative projects list presented in Chapter IV indicates that pending development will occur in many parts of Nipomo Mesa, as well as close to the boundary between Nipomo Mesa and Nipomo Valley. The proposed project contributes to incremental cumulative impacts on cultural resources in these areas. Construction of the proposed project will lead to the loss of several historical resources, including CA-SLO-2133. Such sites provide data relevant to understanding how groups settled and utilized the landscape while coping with environmental variability. The proposed project will facilitate other planned development within the region. These planned projects will also impact archaeological sites and other potentially significant cultural resources. Cultural resources, by their nature, are nonrenewable resources. Their destruction precludes using data from them to answer important regional research questions. Consequently, the proposed project will lead to potentially significant direct and indirect impacts on cultural resources. Such potentially indirect significant impacts can be reduced as other development occurs on a project-by-project basis when appropriate mitigation measures are employed. In the case of the proposed project, potentially significant impacts can also be reduced to a less than significant level, so this project will not significantly contribute to cumulative impacts on cultural resources.

5. Mitigation Measures

G-1, Archaeological Monitoring Plan. Prior to initiating construction, the County Department of Public Works shall prepare a monitoring plan with written procedures for archaeological resource monitoring. The County has the responsibility for ensuring that sites to be preserved in place are not impacted by construction activities, for evaluating unanticipated discoveries, and for providing recommendations on the subsequent treatment of such discoveries. This plan shall include procedures for protecting sites that are to be preserved in place and for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of newly-discovered resources as appropriate. As part of the monitoring program, the County shall involve local Native Americans. If the archaeological resources are found and determined to be significant, the County will determine appropriate actions for their exploration and data recovery. The County shall prepare excavated material to the point of identification.

Following the completion of grading, the County Department of Public Works shall prepare a report detailing the results of the monitoring program to be presented to the County Department of Planning and Building. A copy of the final report should also be submitted to the Central Coast Information Center at the University of California, Santa Barbara. The report shall follow the guidelines of the California Office of Historic Preservation (1990) *Archaeological Resource Management Reports* (ARMR). Excavated finds shall be offered for curatorial purposes to the San Luis Obispo County Archaeological Society or another qualified scientific institution.

G-2, Data Recovery Plan. Prior to initiating construction, the County Department of Public Works shall prepare and execute a data recovery plan. The plan shall include a background section discussing the resource, present a research design that addresses important questions, and present appropriate methods for the collection of relevant data. This plan shall follow the guidelines of the

California Office of Historic Preservation (1991). The data recovery plan shall be developed in consultation with the County Department of Planning and Building.

Following the development of the data recovery plan, the County shall conduct the research program described in the plan. The County shall prepare excavated material to the point of identification. Following completion of the field and laboratory work, the County shall produce a report detailing the results of data recovery. A copy of the final report shall also be submitted to the Central Coast Information Center at the University of California, Santa Barbara. The report shall follow the guidelines of the California Office of Historic Preservation (1990) ARM. Excavated finds shall be offered for curatorial purposes to the San Luis Obispo County Archaeological Society or another qualified scientific institution.

G-3, Pre-Construction Archaeological Workshop. An archaeological workshop shall be conducted at the pre-construction meeting for construction personnel under the supervision of the County Department of Public Works. This workshop shall educate construction personnel about what types of cultural materials may be encountered during construction excavation. A procedure for notification of a qualified archaeologist about accidental discoveries and a communication network shall be developed so that if any suspected cultural materials are unearthed in areas not being monitored, they can be quickly examined and evaluated by qualified archaeologist and appropriate recommendations made. This workshop shall be repeated as needed for construction workers not attending pre-construction meetings and prior to their beginning any grading work.

G-4, Procedure for Handling Unanticipated Discoveries. If any cultural or paleontological material is unearthed during grading or excavation associated with the project, work in that area shall be halted until such material can be examined by the County and appropriate recommendations made.

G-5, Procedure for Handling the Discovery of Human Remains. If human remains are encountered during grading or excavation associated with the project, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition of the materials pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC). The NAHC will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

G-6, Paleontological Resource Impact Mitigation Program. Prior to initiating construction, a County approved project paleontologist shall prepare a Paleontological Resource Impact Mitigation Program (PRIMP) for ensuring that paleontological resources are kept below a level of significance. The PRIMP shall include the following steps:

- The project paleontologist shall prepare a map to show where grading to depths below six feet would occur within Pleistocene formations, which is of primary concern for paleontological resources;

- A trained paleontological monitor shall be present during rough grading below a depth of six feet and within Pleistocene sediments to the final depth of excavation for the entire length of the road alignment. The monitor will be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. The monitor will be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples will be collected and processed to recover microvertebrate fossils. Processing will include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains;
- Upon encountering a large deposit of bone, salvage of all bone in the area will be conducted in accordance with modern paleontological techniques;
- All fossils collected during the project will be prepared to a reasonable point of identification. Excess sediment or matrix will be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified will be provided to the museum repository along with the specimens;
- A report documenting the results of the monitoring and salvage activities and the significance of the fossils will be prepared;
- All fossils collected during this work, along with the itemized inventory of these specimens, will be deposited in a museum repository for permanent curation and storage.

6. Residual Impacts

The proposed project will impact known historic and pre-historic resources. Impacts to CA-SLO-1620 will be reduced to a less than significant level with the implementation of Mitigation Measure G-1. Site CA- CA-SLO-2133 would be adversely affected by the implementation of the project. Impacts to CA-SLO-2133 can, however, be reduced to a less than significant level with the implementation of Mitigation Measure G-2, which calls for data recovery excavation at this site. Upon completion of these measures, residual impacts on cultural resources will be less than significant.