4.18 CULTURAL RESOURCES

1. SUMMARY

Phase I and II archaeological surveys and test excavations for cultural resources on the project site were undertaken in 2008 and 2009. These surveys have resulted in the discovery and recording of one prehistoric and two historic archaeological sites. The prehistoric site is a small, low-density campsite with subsurface deposits. The site appears to be a nonunique archeological resource, representing a terminal Early Millingstone/Early Intermediate Period settlement dating from c. 4000 to 2000 years before present (B.P.). The campsite further appears to have been seasonally occupied by a small group of people whose subsistence practices emphasized plant foods, and most probably hard seeds. In accordance with state law, the project applicant has entered into a consultation agreement with the Fernandeño Tataviam Band of Mission Indians (Tataviam) for the proposed project. The Native American Heritage Commission (NAHC) recognizes the Tataviam as an organized Native American tribe, and includes the Tataviam on its Tribal Consultation list compiled pursuant to Government Code section 65352.3. The two historical sites include the Mitchell family cemetery and the remnants of the Mitchell family homestead. The project would preserve both of these identified sites. No buildings from the homestead remain on the property. Inadvertent direct and/or indirect disturbance during construction of the proposed project to any on-site sensitive cultural resource would be considered a significant impact. Accordingly, mitigation measures are proposed that would reduce the magnitude of potential impacts to cultural resources to less-than-significant levels.

2. INTRODUCTION

The following analysis is based on the Phase I and Phase II cultural resource surveys and test excavation reports prepared by W&S Consultants. The Phase I and Phase II reports were completed in September 2008 and March 2009, respectively. These reports are found in **Appendix 4.18** of this EIR. The Phase I archaeological survey provides: (1) a background study and archival records search to determine if any known archaeological sites are present in the study area and/or if the area had been previously and systematically studied by archaeologists; (2) an on-foot, intensive survey of the study area to identify previously unrecorded cultural resources; and (3) a preliminary assessment of such resources, should any be found within the subject property. Two historic sites and one unique prehistoric archaeological site were found. Subsequently, Phase II archaeological test excavations were conducted to determine the size and significance of the prehistoric archaeological site, and to provide baseline data from which an assessment of potential adverse impacts to these resources could be made.

3. EXISTING CONDITIONS

The project study area consists of approximately 200 acres located in the Santa Clarita Valley and is bisected by the Santa Clara River. The property is located south of the Antelope Valley Freeway (SR-14), east of Mint Canyon and west of Sand Canyon. Most of the study area is currently and primarily undeveloped land that is surrounded on all sides by development. Residential land uses are present to the east, west, and south, with SR-14 being located to the north. Additional commercial and residential uses are located immediately north of SR-14.

The project site includes the sandy bottom of the ephemeral Santa Clara River, a small elevated terrace on the northeast side of the property, and a larger elevated terrace that forms the southern half of the study area. Environmental conditions have been altered substantially by historical uses of the property, including cultivation, grading related to various utilities and residential and storage uses.

a. Ethnographic Background

The Santa Clarita Valley region, including the study area, appears to have been inhabited during the ethnographic past by an ethnolinguistic group known as the Tataviam. Their language is believed to represent a member of the Takic branch of the Uto-Aztecan linguistic family. In this sense, it was related to other Takic languages in the Los Angeles County region, such as Gabrielino/Fernandeño of the Los Angeles Basin proper and Kitanemuk of the Antelope Valley.

The Tataviam are thought to have inhabited the upper Santa Clara River drainage from about Piru eastwards to just beyond the Vasquez Rocks/Agua Dulce area; southwards as far as Newhall and the crests of the San Gabriel and Santa Susana Mountains; and northwards to include the middle reaches of Piru Creek, the Liebre Mountains and the southwesternmost fringe of Antelope Valley. Their northern boundary most likely ran along the northern foothills of the Liebre Mountains (i.e., the edge of Antelope Valley), and then crossed to the southern slopes of the Sawmill Mountains and Sierra Pelona, extending as far east as Soledad Pass. Ethnographically, at least, the Tataviam do not appear to have controlled the Leona Valley or areas to the north, with the Elizabeth Lake area proper a zone of uncertainty.

Known Tataviam villages during the historic period include: *pi?irukung* and *?akavaya*, both near modern Piru; *tsavayu(?u)ng*, San Francisquito; *etseng*, *kuvung* and *huyung*, on Piru Creek above Piru; *tochonanga*, near Newhall; *kwarung*, Elizabeth Lake; and *tsawayung*, near Castaic Junction. At *kamulus*, near modern Rancho Camulos, a mixed Chumash-Tataviam population lived. Because the name *kamulus* is unquestionably Chumash and not Tataviam, however, the toponym has been viewed as problematic; that is, as not reflecting the original (Tataviam) name for this village. Regardless of original name, however, the Spanish missionary Señan, writing in 1804, indicated that the Chumash inhabitants of the village of

sécpey had migrated to *kamulos*, accounting for this admixture. *Sécpey* is now known as Sespe, near the modern town of Fillmore.

Culturally speaking, the Tataviam were in most respects similar to their Fernandeño and Chumash neighbors, to the south and west, respectively. In this sense, they were hunters-gatherers, with subsistence emphasizing yucca, acorns, juniper berries, sage seeds, and islay. Game was also hunted, with small animals, such as rabbits/hares and rodents, probably representing the more significant contributions of meat protein than larger game, such as deer.

Little is known of Tataviam social and political organization. Based on analogies to surrounding groups, however, it can be suggested that they were organized in a series of tribelets, similar to the *naciones* of the Antelope Valley, and found to be characteristic of much of California aboriginal socio-political organization. The tribelet represented an autonomous land-holding unit, minimally controlled by a head-chief or big-man. They usually included one large, capital village, sometimes occupied year-round, and a series of smaller, seasonally inhabited hamlets. Whether the Tataviam had exogamous clans and moieties, like the Cahuilla and Serrano to the east, is unknown. However, it is estimated that the Tataviam population was less than 1,000 people at the time of Euro-American contact, and that only two or three of the largest villages throughout their territory were inhabited at any given time.

It is also likely that Tataviam religion followed the patterns of surrounding neighbors. In this case, shamanism would have functioned as the central element, and ceremonies and rites were infrequent in occasion and limited in type. This religion posits a direct and personal relationship between each individual and the supernatural world, with this relationship enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychoto-mimetic plants, such as jimsonweed or native tobacco). Shamans, per se, who were considered individuals with an unusual degree of supernatural power, served as ritual specialists: Perhaps most importantly, shamans served as healers or curers, with the etiology of disease as well as its cure held to lie in the supernatural world. Shamans are also known to have produced the rock art of this region, which depicted the hallucinations and spirits they observed in their vision quests.

Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, with a number of their villages described by members of the Portolá expedition of 1769, a general lack of information on this group exists because, by 1810, all Tataviam had been baptized at Mission San Fernando and were quickly absorbed by other groups through intermarriage. Their descendants, however, continue to reside in the region.

b. Archaeological Background

Archaeologically speaking, more information is available on the Santa Clarita Valley area, although here, too, less is known than for many of the surrounding Southern California regions. In general terms, the prehistory of this inland area appears to parallel that of the Santa Barbara Channel/Southern California coastal zone.

The earliest evidence for human occupation of this region corresponds to the *Early Millingstone Period* (or, alternatively, the Early Horizon), dated from about 7,000 to 4,000 years B.P. This represents a period during which subsistence and adaptation are said to have emphasized the collecting and processing of hard seeds, with inland artifact assemblages, dominated by mullers and millingstones, known as *manos* and *metates*. Evidence for an Early Millingstone occupation of the upper Santa Clara Valley region is very limited, and has been found at only two sites. Both of these sites are located near Vasquez Rocks, with temporal attribution based on the presence of a small number of *Olivella* barrel beads. Such bead types have subsequently proven to be unreliable temporal indicators, throwing doubt on human inhabitation of this region before about 4,000 years ago. Further, recent excavations at one of these putative early locales, the Escondido Canyon Site, failed to uncover evidence for occupation prior to about 2,700 years B.P.

The second temporal unit is the *Intermediate Period* (or Middle Horizon), dated from 3,500 to 1,500 years B.P. It is marked by a shift to the mortar and pestle, with an increased emphasis on hunting and hunting tools in artifact assemblages. Population appears to have increased during this period, with more temporary camps founded. Evidence for *Intermediate Period* occupation of the upper Santa Clara Valley region is substantial; a number of sites have been found based on radiocarbon, obsidian hydration and typological dating. The Agua Dulce village complex, for example, includes occupation extending back to the *Intermediate Period*, at which time population of the village may have been 50 or more people. Furthermore, the *Intermediate Period* appears to represent a time during which a substantial exploitation of mid-altitude environments first began, with considerable use, for example, of portions of nearby Hathaway Ranch (located to northwest of the study area) beginning at this time.

Assuming that the upper Santa Clara Valley region was first significantly occupied during the *Intermediate Period*, as existing evidence now suggests, a parallel can be drawn with the inland Ventura County region, where a similar pattern has been identified, as well as possibly the Antelope Valley and western Mojave Desert. In all of these areas a major expansion in settlement, the establishment of large site complexes, and an increase in the range of environments exploited appear to have occurred sometime roughly around 3,000 years ago. Although most efforts to explain this expansion have focused on very local circumstances and events, it is increasingly clear that this was a major Southern California-wide occurrence and, therefore, that explanation of it must be sought at a larger level of analysis.

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. Site complexes first occupied in 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. In fact, the principal distinction between *Intermediate Period* and *Late Prehistoric Period* sites in the inland regions is a change in certain diagnostic artifact types (notably, projectile points, with a shift from spear points to bow and arrow points). This change may not signify consequential changes in culture, adaptation or subsistence, although the trends begun in the *Intermediate Period* accelerate over time during the *Late Prehistoric Period*. For example, a large number of *Late Prehistoric Period* sites are known from the upper Santa Clara Valley/Agua Dulce region, with the Agua Dulce village complex estimated to have grown to a population of 200 to 300 people around A.D. 1500–1600. Sometime during this period the Tataviam can be hypothesized to have occupied this region, although it is likely that they may have appeared somewhat earlier. However, the important point is that, during the *Late Prehistoric Period*, the patterns of lifeways recorded for the ethnographic period were fully in operation.

During the *Historic Period*, the aboriginal population appears to have dropped considerably. This, without doubt, can be attributed to the effects of missionization and its attendant relocation of the aboriginal population to centralized locales, along with the depredations of introduced Old World diseases. The upper Santa Clara Valley 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 Valley was moved into Mission San Fernando in the San Fernando Valley, and the area was effectively depopulated.

c. Historical Background

The first Euro-American identification of the Santa Clarita region occurred in the chronicles of the Portolá expedition of 1769. This expedition 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. Although the region was traversed by a number of Spanish explorers in subsequent years, it initially remained isolated due to rugged topography, even though it had been suggested as a locale for a mission. With the establishment of Missions San Buenaventura in 1782, and San Fernando in 1797, late 18th-century historical events largely occurred in areas to the west and south of the upper Santa Clarita Valley proper.

As the missions increased in size and their herds grew, it became necessary for many of them to establish mission ranchos, or *estancias*, to allow their cattle to graze some distance from the mission vineyards and fields. With this geographical expansion of mission influence and activities, the upper Santa Clarita Valley region became important, if not pivotal, in a number of events central to the development of

Southern California. Rancho San Francisco, comprising the upper reaches of the Santa Clarita Valley down to Piru, served as the *estancia* for Mission San Fernando, and was established a few years after the founding of the mission itself.

Rancho San Francisco and the upper reaches of the Santa Clarita Valley figured in three important episodes in Southern California, two of which are landmarks in the economic history of the state. The first was the discovery of gold in Placerita Canyon in 1842 by Francisco Lopez, Manuel Cota and Domingo Bermudez. The upper Santa Clarita Valley also was the first location of true oil drilling. Petroleum exploration began about 1865, when oil seeps were discovered in Pico Canyon. This led to discoveries of oil on Rancho San Francisco and, ultimately, throughout the Valley. Lack of a local market and cost of shipping prevented major development of this natural resource until 1876, when the Southern Pacific Railroad crossed the region. This initiated an oil boom in the area, with the development of the Newhall oil field and establishment of the Pioneer Oil Refinery (ultimately, the predecessor to Chevron Oil) in 1876.

The third local event of historical importance in Southern California was the collapse of the St. Francis Dam and the resulting flood of the Santa Clara Valley on March 12 and 13, 1928. With the failure of the dam near midnight on March 12, water raged down San Francisquito Canyon to Castaic Junction, which it effectively leveled, and then on to Fillmore, Santa Paula and ultimately to the Pacific Ocean. The flood caused at least 336 deaths, and destroyed 990 homes and many acres of orchards. It is likely that prehistoric archaeological deposits would have been washed away or covered with alluvium.

The Vista Canyon study area falls outside of the original Rancho San Francisco/Newhall Ranch boundaries, and is upstream of both the gold discovery at Placerita Canyon and the floodwaters that came down San Francisquito Canyon. Nonetheless, the study area has substantial history, primarily associated with Col. Thomas Mitchell, who settled in the area in 1860.

Thomas Finley Mitchell was born in Virginia, subsequently moving to Texas where, in 1852, he served under Sam Houston in the Texas Mounted Volunteers. He went to California shortly thereafter, spending approximately eight years in the Northern California mining districts. In 1860, he moved to the vicinity of Soledad and Sand Canyons—the current study area—to start a cattle ranch. Initially he transported a dismantled miner's cabin down from Tehachapi and erected it on his property. A few years later he married Martha Taylor, from Arkansas by way of San Gabriel, and built a more commodious adobe, about 40 feet from the original cabin. The adobe was 60 by 45 feet in size and redwood shingled.

Although Mitchell's ranch initially was isolated from historical activities and even traffic, two events made the Santa Clara Valley/Soledad Canyon area around his ranch central to subsequent settlement and

use. The first was the discovery and exploitation of copper and then gold further upstream in Soledad Canyon, at Ravenna and beyond, in the Acton area. Combined with growing trade from eastern California (especially the Cerro Gordo camp in Inyo County), this led to the establishment of a toll road up the valley. Whether it crossed Mitchell's property is uncertain, but possible. Perhaps even more importantly, the route for the railroad from southern to Northern California went up the Valley in order to avoid the steep grades near the Grapevine. The railroad was completed in 1876, and a short section of it crossed his property. A siding called Humphrey's was located outside and immediately southwest of Mitchell's property. This became a minor focus for development in the area.

Eventually Mitchell increased his holdings to nearly a thousand acres, upon which he raised cattle, produced honey, and farmed. With increasing population, and thus children, in the Valley, the Sulphur Springs School District was founded circa 1872. The school opened initially in the kitchen of the Mitchell's adobe, was taught by Mrs. Mitchell, and was the first school building in the Santa Clara Valley area. Circa 1885 the student population had outgrown the single room and a wooden schoolhouse was constructed at Sulphur Springs on land donated by Mitchell. The Sulphur Springs school location falls outside (east) of the study area.

Mitchell built a proper two-story wooden house in 1888, using the old adobe as a guesthouse and storage room. By 1919, the adobe had deteriorated substantially, and its bricks were re-used as an addition on the original miner's cabin. (In 1986, the remaining bricks were removed from the property and the school was reassembled at Heritage Junction in Hart Park, Newhall.) Mitchell died in 1907, and is considered one of the earliest and most prominent settlers in the Sand/Soledad Canyons area. Following his death, his ranch continued to be operated by his descendents, including his son-in-law, Walter Murphy.

In addition to the original miner's cabin, adobe, two-story wooden house, and a number of outbuildings, a family cemetery also was present on the Mitchell Ranch. This was used to inter the Mitchell family, and their friends and neighbors.

d. Phase I Study

(1) Records Search Results

An archival records search of the Vista Canyon study area was completed by staff at the California State University, Fullerton, Archaeological Information Center (AIC) to determine whether the study area contains any known prehistoric or historical sites, and/or whether all or portions of the area it had been systematically surveyed by archaeologists.

The records search revealed that eight previous archaeological surveys covered small portions of the study area, but no sites had been discovered or recorded within it or in the immediate vicinity of the Vista Canyon site.

The 1900 and 1940 San Fernando 15-foot topographic quadrangles (and its 1941 reprint) also were examined to determine if there is evidence of early use of the property. The 1900 quadrangle shows a single structure on Mitchell Ranch, which is probably the two-story home. Another structure to the northeast appears to be the Sulphur Springs School, located outside of the current study area. This structure is still present on the 1940 quadrangle and is also shown on the 1988 photo-revision of the 1960 quad.

In summary, the records search indicates that the study area has no known sites, but has never been fully surveyed. Both the historical background study and examination of the early maps indicate that the study area should contain historical resources, specifically remnants of the Mitchell Ranch and the Mitchell family cemetery.

(2) Field Survey Results

The Phase I survey of the study area was conducted in August 2008. Field procedures involved walking the property in transects spaced at approximately 10–15 meters intervals. The ground surface was examined during these transects to identify evidence of prehistoric and historical sites. For prehistoric sites, evidence might include surface artifacts, dark organically rich midden soils, fire-cracked rock resulting from earth ovens and roasting pits, and shell and bone that might represent remnants of dietary remains. Alternatively, historical remains in the form of metal, glass and ceramic, as well as structure foundations and pits, were also considered possible finds within the study area.

During the survey special attention was paid to geomorphological conditions that affect the preservation of archaeological remains. Road or bank-cuts that expose subsurface stratigraphy, for example, along with stable geomorphic and depositional environments were carefully examined for evidence of cultural remains. Furthermore, rodent backdirt piles were carefully examined inasmuch as they can reveal the presence of buried archaeological deposits.

Field conditions and ground surface visibility for the survey of the study area were good. The area currently consists of disturbed terraces above the Santa Clara River. With the exception of a vegetated area in the southeast (which includes some standing oaks and introduced grasses), there was little remaining natural vegetation. A substantial amount of unauthorized, illicit dumping has occurred on the property. Further, a residential home/equipment storage yard is present on the western side of the study

area. This structure is not located on any of the historical topographical quadrangles, and appears to have been moved onto the property at a later date.

Two archaeological sites were identified on the property during the survey. These sites have been given the temporary designations of Sites VC-1/H and VC-2H, and are described below.

Site VC-1/H: The first recorded site contains both a prehistoric and historical component. The prehistoric component consists of a low-density scatter of lithic flakes. Five primary quartzite flakes, three primary basalt flakes, and 10 secondary jasper flakes were observed. About 30 pieces of fire-affected rocks were also noted. These artifacts were found in an area measuring about 245 meters by 95 meters in size. Based especially on the presence of fire-affected rock (resulting from camp-fires and stone boiling), the site appears to represent a small, low-density prehistoric habitation.

The historical component is located approximately in the middle of the prehistoric site, and is unrelated to it. The component consists of the Mitchell family cemetery and is surrounded by a chain link fence, creating an enclosure that is 20 by 18 meters in size. Evidence of 20 internments, with 14 containing visible headstones, was observed. (Additional burials may be present, but not visible from surface evidence.) The dated graves range from 1905 to 1959. The marked graves have small concrete headstones with hand-stamped aluminum name-plates. The visible inscriptions follow:

1. Van G. Steere, Spanish American War Veteran: 1874–1941
2. George Walters: 1874–1940
3. Hiette Baby: ?
4. Luther Bill: 1903–1959
5. Martha T. Mitchell: 1847–1905
6. Thomas F. Mitchell: 1827–1907
7. Mexican Baby: ?
8. Dyer Baby: ?
9. Helvey Baby: ?
10. Joseph Youngblood: 1948
11. C. Perry Dyer: 1848–1925
12. Leroy Insley: 1925–1941

13. Frank A. Mitchell: 1870–1950

14. Oscar C. Mitchell: 1905–1954

The Mitchell and Dyer families, in particular, were important early settlers in this portion of the Santa Clarita Valley. Both families still have descendants in the area, and the cemetery is somewhat maintained, as it was weed free. With the exception of the cemetery itself, the prehistoric component of the site also appears intact.

Site VC-2H: The second site recorded within the study area is the Mitchell family homestead, founded in 1860 and located in the southeast corner of the study area. The homestead covers an area estimated at 300 by 185 meters in size. Although no structures are still standing in this site area, eight archaeological features were observed, at least some of which may date to the period of the early homestead. These features are as follows:

Feature 1: Railroad tie corral with hog wire fencing (approx. 40 meters east/west × 80/60 meters north/south).

Feature 2: Alignment of wood fence posts with a few remaining strands of machine-made barbed wire (approx. 60 meters in length). Fence posts include milled and natural wood.

Feature 3: Cinder block foundation that is three courses high with internal rebar (8 meters east/west × 14 meters north/south).

Feature 4: Roughly rectangular area of melted adobe bricks and historic trash (approx. 22 meters east/west × 12 meters north/south). Historic trash scatter (medium to high density) includes bottle glass (amber, amethyst, brown, clear, and olive green) ceramic fragments, window glass (opalized), hole-in-top can fragments, tin can fragments, barbed wire and assorted fragments of sheet metal and iron. This appears to be the location of the early adobe.

Feature 5: Milled lumber corral with hog wire and chain link fencing (30 meters north/south × 15 meters east/west) and two concrete foundations located approximately 7 meters south of the corral enclosure. The western concrete foundation measures approximately 7 meters east/west by 3 meters north/south and the eastern concrete foundation measures approximately 5 meters east/west by 8 meters north/south. Both foundations consist of formed and poured concrete footings that are 4 to 6 inches wide. Exposed aggregate in the concrete foundations appears to be locally derived from the Santa Clara River channel.

Feature 6: Abandoned gravel railroad bed with a low-density scatter of iron railroad spikes and rail clips.

Feature 7: Roughly rectangular grove of palm trees (10 meters north/south × 25 meters east/west), which have since been removed.

Feature 8: Historic trash scatter and a large artificially leveled dirt pad (10 meters × 10 meters) that is at the approximate location of a mapped historic structure. Trash scatter includes iron fragments, ceramic fragments, window glass (opalized) and steel water pipe. This may have been the location of the two story house built in 1888, which no longer exists on the property.

Overall the site contains a medium to high density scatter of historic trash including bottle glass (amber, amethyst, brown, clear, and olive green) ceramic fragments, window glass (opalized), hole-in-top can fragments, tin can fragments, barbed wire, galvanized steel water pipes, milled lumber fragments and assorted fragments of sheet metal and iron.

Site VC-2H, as the documentary evidence indicates, is part of the homestead of Thomas Mitchell, an important early settler in the region. However, because the proposed project would preserve most of the features of VC-2H within the proposed Oak Park, a Phase II survey was not conducted on this site.

e. Phase II Study

(1) Introduction

Phase II fieldwork[1] at Site VC-1/H resulted in the collection of a moderately sized assemblage of archaeological remains. The recovered archaeological remains from this site are discussed in detail below, including a summary of the laboratory procedures by which this collection was processed and analyzed, and a review of the site assemblage in typological terms.

(2) Surface Collection

The surface collection resulted in the identification of 74 archaeological specimens (i.e., stone tools and pieces of lithic debitage) on the ground surface of the site area. These were mapped and collected from 59 data points. The distribution of surface artifacts was constrained on the north by SR-14, which likely removed the northern portion of the site, and on the south by the Santa Clara River. The dimensions of the extant surface component of the prehistoric site measured 210 meters east/west by 140 meters north/south. This essentially conformed to the top and brow of the landform, along with the western and southern foot and toe-slope of this knoll.

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1 Please see Chapter 2, Field Methods, of the Phase II test excavations report, available in **Appendix 4.18** of this EIR, for additional information regarding the procedures utilized to evaluate the prehistoric site.

The overall size of the surface component was 29,400 meters square. Note that this resulted in a very low surface artifact density: 0.002 artifacts per meter square, or one artifact per every 397 square meters. Additionally, there was a concentration of surface artifacts near the southeast limit of the study area. As discussed below, this portion of the site consisted of a midden patch, and thus a concentrated living area within the site.

(3) Test excavations

Fieldwork at Site VC-1/H also involved the hand excavation of sixteen 1×1 meter pits. The landform containing the site is a bedrock supported knoll; this bedrock varies irregularly in depth, in some cases day-lighting on the knoll and, in others, allowing for moderate soil development—generally along the southern toe slope of the knoll. The top of the knoll, in contrast, lacks any source for deposition. Soils in this area are typically deflating and thin.

With the exception of Unit 11, discussed below, soils on the site were essentially uniform. The A Horizon (topsoil) is silty sand. The contact between the A and C Horizons was gradual, indicating in-place soil development. The C Horizon (parent material; i.e., decomposing bedrock) is an ancient weakly cemented alluvium (sandstone) composed of gravelly silty sand, with some carbonates.

Using these soil descriptions for reference, the excavation unit results can be summarized as follows:

Unit #1: This unit was dug to 60 centimeter (cm) depth. The C Horizon was encountered at about 40 cm. A small quantity of artifacts, primarily lithic debitage, was present to bedrock, with a slight increase in numbers near the base of the deposit (including extending into the disturbed upper portions of the C Horizon).

Unit #2: This unit was excavated to sterile bedrock at 50 cm depth. A small quantity of artifacts (lithic debitage and one animal bone fragment) was recovered from the sterile alluvium.

Unit #3: This unit was excavated to 50 cm, with the C Horizon encountered at 40 cm. A small quantity of artifacts (lithic debitage) was present to 40 cm depth.

Unit #4: This unit was excavated to 60 cm. The A Horizon extended to 50 cm depth. The unit contained eight pieces of debitage, all found above 40 cm depth, and is on the margins of the archaeological deposit.

Unit #5: This unit was excavated to 35 cm depth, where the C Horizon was encountered. Four pieces of debitage were recovered in the top 20 cm of the deposit, indicating that this pit was at the edge of the archaeological deposit.

Unit #6: This unit was dug to 40 cm depth (limit of A Horizon), with three pieces of debitage recovered. Again, this unit is peripheral to the deposit.

Unit #7: This until was excavated to 50 cm depth, where the C Horizon was encountered. A total of 22 artifacts (primarily lithic debitage) were recovered above the C Horizon.

Unit #8: This unit was taken to 30 cm depth, where ancient alluvium (C Horizon) was encountered. Six pieces of debitage were recovered above 20 cm in depth, indicating that the unit was marginal to the archaeological deposit.

Unit #9: This unit was dug to 50 cm depth, with the C Horizon encountered at 40 cm. A Horizon had five pieces of debitage above 30 cm and, again, the unit is at the deposit edge.

Unit #10: Sterile alluvium was encountered at 50 cm depth, where excavation was terminated. Cultural remains consisted of 59 specimens (mostly debitage) in A Horizon, from 0–50 cm depth.

Unit #11: This unit was dug to bedrock, which was encountered at 80 cm depth. Soil conditions were slightly different here than elsewhere on the site due to the presence of a soft silty sand midden (organically enriched) soil. This A Horizon extended to 35 cm depth, and it was massive in structure. A weak B Horizon consisting of clayey silty sand was present from 35–70 cm depth. This was sub-angular in structure. Both of these horizons were Munsell Very Dark Grayish Brown, as a result of the human introduction of ash and charcoal into the soil. Ancient alluvium was encountered between 70–80 cm in depth, with a wavy contact. This was massive and indurated, and is Munsell Light Yellowish Brown in color.

This unit alone contained 1,715 archaeological specimens—more than the remaining 15 pits in combination. Note however that a substantial portion of these specimens (36 percent) may represent naturally introduced faunal remains; that is, small mammal bones probably resulting from recent animal burrows in this deep soil. Nonetheless, this unit was located in an area of intense prehistoric occupation.

Unit #12: This unit was excavated to the top of the ancient alluvium at 20 cm depth, with seven pieces of debitage encountered from 0–20 cm, thereby suggesting it is at the margin of the deposit.

Unit #13: This unit was dug to sterile alluvium at 20 cm. This pit contained just four archaeological specimens, indicating that it is on the edge of the archaeological deposit.

Unit #14: This unit was excavated to ancient alluvium, encountered at only 20 cm depth. Although shallow, the pit contained a total of 54 archaeological specimens.

Unit #15: Sterile alluvium was encountered at 30 cm depth in this unit, with archaeological specimens restricted to the top 20 cm of the soil.

Unit #16: This unit was dug to 30 cm depth, where the C Horizon was encountered. Archaeological specimens were limited to the top 20 cm of the unit. Both Units #15 and #16 appear to be at or near the boundaries of the archaeological deposit.

The excavation results suggest the following: First, as noted above, soil depth varies dramatically on the site due to irregular underlying bedrock. Second, the intact archaeological deposit is not strictly continuous over the landform, but instead consists of a series of four more-heavily occupied zones within the larger site area as a whole, each surrounded by peripheral (very low artifact density) zones of soil deposit. The locations of intense occupation and greater deposition consist of the areas of Units #1, #2, and #3, and the areas immediately surrounding Units #10, #11, and #14. Third, overall site area is calculated to be 210 meters (m) east-west by 115 m north-south. While the northern side of the site was truncated by SR-14, making it unclear how large it may once have been, the overall size for the extant deposit can be estimated at about 24,150 meters square. Fourth, and finally, the area surrounding Unit #11 warrants mention. This is located immediately alongside the River channel, on a low terrace, and it consists of a patch of organically enriched midden soil. This Unit measures about 20 m east/west by 25 m north/south. There is evidence for soil development over time at this location (a weak B Horizon from about 35 to 70 cm in depth), indicating some time depth to this location, despite the preservation of the organic component of the soil.

(4) General Laboratory Procedures

Following the completion of the Phase II fieldwork at Site VC-1/H, the recovered artifact assemblage was taken to a laboratory for washing, processing, and analysis. After each specimen was washed and labeled, metrical and typological analyses were performed. Measurements and weights for the various artifacts and archaeological indicators in the site catalog were provided. In order to facilitate typological comparisons between this site and others from this same region, a standardized taxonomic system was employed. This classificatory system is described in some detail below.

(5) Taxonomic and Analytical Considerations

In considering the artifacts recovered from the Site VC-1/H, a morphological stone tool typology was employed, which is widely used in the region. The morphological typology employed here is based on four major categories of stone artifacts: (1) groundstone implements; (2) core/cobble tools; (3) flaked stone tools; and (4) tool manufacturing waste, or debitage.

This typology affords a number of advantages. First, because of its widespread use, it permits easy comparability between existing studies. Second, because it is morphologically rather than functionally based, it provides greater objectivity in taxonomic assignments. Specifically, it avoids the dangers inherent in inferring dubious functional purposes for stone tools that may have had multiple uses, and that often exhibit little in the way of formal attributes. In the inland Southern California region, in particular, it is increasingly clear that most sites are characterized by expedient or casual tool assemblages, probably reflecting the fact that the sites resulted from dispersal phase activities that little emphasized formal patterns of behavior. However, this is not to imply that functional interpretations are unwarranted or undesired. Such is not the case; instead, it is simply to emphasize that functional interpretations must be made somewhat independent of—and, therefore, including other lines of evidence from—the typological assignments alone.

In addition to the lithic tool typology, other classes of artifacts may be present at Southern California sites. Dietary remains, in the form of shellfish and faunal bones, are sometimes present, as are ornaments, usually in the form of shell beads. Faunal remains, in particular, result in a series of analytical problems and issues. The most important analytical concern is the taphonomic history of the collection. That is, because bones may occur naturally in the subsoil—especially bones of small mammals, such as pocket gophers and ground squirrels, that commonly reside and die in burrows—it is not always a straightforward process to determine which specimens in a faunal collection are truly archaeological and which are present as the result of normal animal activities. This problem is compounded by the fact that certain of these same burrowing animals may have been employed as parts of the prehistoric aboriginal diet. Furthermore, domestic dogs and wild coyotes may take or leave bones on sites, while large mammals can die on them after their prehistoric occupation. And, in the case of caves and rockshelters, a very wide range of animals may have lived and died in these sheltered habitats, or have been dropped there by other non-human predators.

Because of these confounding factors, a series of short and general guidelines is used to aid in determining which specimens are most likely cultural, in the sense of having resulted from aboriginal behavior, and which are most probably unrelated to the archaeological remains and, therefore, only within the archaeological deposit due to serendipitous circumstances. In terms of positively determining that a given bone was brought onto a site by human agency, the following are useful criteria: (1) butchering and cutting marks; (2) evidence of burning and charring; (3) knowledge of the habits of a given species, indicating a low probability of its remains being naturally interred in a particular type of deposit; and (4) ethnographic information concerning the diet and butchering habits of local aboriginal groups. Information counting against the inclusion of a given bone in a reconstruction of prehistoric diet includes: (1) knowledge concerning the behavior of a given species that indicates a high likelihood of

natural deposition in the type of deposit in question; (2) freshness of the bone; (3) absence of butchering marks and burning, or the presence of modern saw-cut marks; and (4) ethnographic data discounting the use of that species by local groups.

All modern or contemporary artifacts recovered during the excavations were carefully, processed and cataloged. Such items are important not for any intrinsic reasons, but instead because they provide a clear sign of soil disturbance, typically within the last 100 years.

(6) Artifact Assemblage

A total of 2,082 archaeological specimens were recovered from the Site VC-1/H. Seventy-four of these specimens were found on the site surface, with the remainder from the test excavations. The vast majority of the recovered specimens, 82 percent of the total, were recovered from Unit #11. As noted above, 36 percent of the specimens from Unit #11 are unburned small mammals bones that may, in fact, be natural rather than cultural in origin, hence the size of the assemblage from this pit may be inflated by naturally introduced materials. Still, and despite this possibility, the midden patch surrounding Unit #11 was clearly the focus for prehistoric occupation at the site.

(7) Lithic Tools

Groundstone artifacts: A total of six pieces of groundstone was recovered from Site VC-1/H. Five of these are manos or mano fragments, all of which are bifacially ground; one is a uniface metate. Two of the manos are volcanic, two are grano-diorite, and one is made of schist. The metate, in contrast, is volcanic tuff. All of these materials are locally available, although the volcanic tuff is not immediately available.

The presence of this groundstone is indicative of plant processing activities at this site, most likely hard-seed grinding. Notably absent are mortars and pestles, typically used for acorn processing. This absence likely reflects the fact that acorns were not a significant component of the subsistence practices at this site, but whether this further reflects environmental, temporal or adaptive factors is uncertain. For example, acorn exploitation may have been seasonal and practiced at nearby Placerita Canyon, but not at this specific location.

Core/cobble complex tools: Twelve core/cobble complex tools were found at the site. Seven of these are worked artifacts, per se; the remainder are cores and, thus, strictly are a kind of debitage. Four of the worked artifacts are hammer stones. All of these are Type 1 unmodified cobble hammer stones, with three made from fine-grained volcanics and one from quartz. While quartz is the most common mineral on earth, and is locally available in cobble form in many sedimentary deposits, it is somewhat unusual as a tool stone on Southern California archaeological sites. The presence of quartz in the core/cobble

complex assemblage, however, is mirrored in the debitage collection (below), and is apparently a specific characteristic of sites along this stretch of the Santa Clara River.

Two of the core/cobble complex tools are Type 2 cobble scraper planes. One of these is made from rhyolite, and the other from quartzite. Scraper planes appear to have been used for pulping purposes, most likely of agave. A third type of core/cobble complex tool from the site is a uniface cobble chopper, made from volcanic stone. This also was likely used for heavy pulping and pounding tasks. These heavy pounding tools emphasize the importance of plant processing at the site.

The five cores are all Type 1 multiplatform cores, and thus show no evidence of systematic lithic reduction. Four are fine-grained volcanics and the fifth is jasper. Although lithic reduction was then somewhat unsystematic on the site, at least with respect to the primary stage of stone flaking, the jasper originates on the Mojave Desert and was an imported material. In some cases and in other words, "foreign" raw materials were brought onto Site VC-1/H for lithic production.

Flaked stone tools: Ten flaked stone tools were recovered from Site VC-1/H. These include five projectile point fragments; three biface fragments; and two unifaces. Four of the projectile point fragments are all made of jasper—a desert lithic resource. The fifth is fused shale, the closest source of which is to the west, near Fillmore. Three of these are tip fragments, one is a mid-section, and one is a base. Although the tip and mid-section fragments are strictly all untypeable, they are clearly atlatl as opposed to smaller arrow points, based on their thickness and/or width. This means that they all apparently pre-date 1,500 B.P., when the bow and arrow were introduced into the region. The basal point fragment, made of jasper, supports this age assignment. It is the flat-based tang of an Elko Corner-Notched atlatl dart. This point type dates between 3,500–500 B.P., and Elko points are common in the Mojave Desert to the east.

The other flaked stone tools consist of three miscellaneous biface fragments, and two uniface edges. All are made of jasper. The biface fragments are characterized as "miscellaneous" because, in this instance, they are all so small that it is impossible to determine whether they are fragments of formal tools or parts of biface "edges." The unifaces, in contrast, are all just "edges"; that is, otherwise unshaped flakes that have been flaked along a single working edged. These kinds of tools represent casual craft activities using expedient tools, probably for a single use. It then does not appear that any specialized craft activities occurred at this site.

Lithic debitage: As is almost invariably the case, lithic debitage—waste flakes and shatter resulting from stone tool manufacture and maintenance—constituted the large majority of the recovered artifact assemblage. A total of 1,215 pieces of debitage (exclusive of cores) was recovered from the site.

A series of observations result from this debitage assemblage. First, the dominance of jasper, a Mojave Desert lithic resource, confirms the link between the site's prehistoric occupants and areas to the east. Second, this conclusion is further emphasized by the presence of a small but significant quantity of obsidian. The closest obsidian source is Sugarloaf Mountain in the Cosos, north of Ridgecrest, and it is another Mojave Desert lithic resource. Third, the presence of the obsidian signals that the site occupants participated in long distance trade. Fourth, the obsidian trade between Coso and areas to the west primarily occurred during the *Middle Period*, and effectively terminated by about AD 1200. Given the presence of the obsidian at the site is significant even if small numbers, this supports the *Middle Period* age assignment inferred from the projectile points. Fifth and last, fused shale is also present, indicating access to and use of lithic resources to the west—in historical Chumash territory. Importantly, however, the debitage includes over twice the quantity of long-distance traded obsidian, coming from Coso roughly 140 miles away, in comparison to the fused shale from the Fillmore area, about 35 miles west. Cultural factors, most likely a tribal boundary, appear to have heavily influenced the nature of the prehistoric trading network. The debitage can also be considered with respect to manufacture stages. The low proportion of primary flakes and angular shatter indicate that very little primary production occurred on the site. The preponderance of secondary and tertiary flakes, in contrast, signals the importance of final tool manufacture and maintenance. Both of these activities are characteristic of habitations and campsites.

(8) Other formal tools

A small quantity of additional formal worked artifacts were recovered from the site: three stone ornaments and two bone tools. The stone ornaments are all made from talc schist—steatite. Steatite-grade talc schist is present in the Sierra Pelona Mountains in the Agua Dulce region, a relatively short distance northeast of the site. Two bone tools are both small fragments of bone awls, probably made from a deer cannon bone. They are indicative of basket weaving, further pointing to the wide range of activities that occurred at this location.

(9) Faunal remains

A relatively large collection (i.e., 725 pieces) of faunal remains—animal bones—was recovered from Site VC-1/H. As noted above, animal bones from sites in this region typically were heavily processed and broken up, for marrow extraction, making speciation impossible in most cases. For the large mammal class, there were 31 specimens weighing a total of 17.8 grams (gm). Four of these (1.6 gm) were burnt. For the small mammal class, there were 694 specimens weighing 61.6 gm. Unburned small mammal bones in archaeological sites are especially problematic because they may represent recent intrusive rodent remains, not evidence for prehistoric subsistence. Burnt small mammal bones, which are much more

likely to be truly archaeological in origin, included only 64 specimens weighing 6.9 gm—about 10 percent of the overall total.

Despite this uncertainty, there is clear evidence for the acquisition and use of both large (most likely deer) and small (probably rodents and smaller hares) mammals at the site. The animal bone suggests a generalized foraging pattern rather than any kind of specialized hunting strategy. Further, the large mammal bones consist almost entirely of long bone shaft fragments. This suggests that butchering occurred off site, where the carcasses were discarded, with the meat brought back to the habitation.

(10) Miscellaneous remains

Three unworked pieces of talc schist also were recovered from Site VC-1/H. In addition to these items, 109 fragments of ocher were collected. Most of these were rounded, perhaps water rounded, and collected from the adjacent Riverbed where they may occur as float material. Alternatively, the rounding may have occurred from use (e.g., rubbing as an application technique for body paint).

(11) Age and Function of Site VC-1/H

The age of Site VC-1/H can be established by a series of lines of evidence. First, all five of the recovered projectile points are atlatl dart fragments and thus pre-date 1500 B.P. One of these fragments is the base of an Elko Corner-Notched point, dated specifically at 3500 to 1500 B.P. Second, a small but significant amount of obsidian was recovered. Almost all obsidian from this portion of Southern California dates before about AD 1200, at which point the desert to inland obsidian trade essentially terminated. The presence of obsidian on the site, therefore, also suggests that it is *Middle Period* or older in age. Third, a weak B Horizon has developed in the midden surrounding Unit #11. Although rates of soil pedogenesis vary, even within a give region, the B Horizon is indicative of older (on the order of one or more thousands of years) rather than younger soils.

The combination of these three lines of evidence suggests that Site VC-1/H is *Middle Period* in age, dating between 4000 and 800 B.P., and probably 4000 to 1500 B.P. Although it is possible that more recent occupation occurred on the site, no affirmative evidence of this possibility was found.

Site VC-1/H is best interpreted as a small habitation or campsite. This is indicated by the diversity of artifact types, which includes hunting tools (projectile point) and faunal remains, and evidence of lithic reduction (cores, debitage and hammer stones), tool finishing and maintenance (secondary and tertiary flakes, bone awls), and plant processing artifacts (groundstone, scraper plane). Judging from the preponderance of manos and metates (as opposed to mortars and pestles), hard seeds as opposed to

acorns appear to have been the focus of the prehistoric diet at the site, augmented by unspecialized mammal hunting.

Given its size and the relatively low subsurface density of artifacts, Site VC-1/H appears to have been sporadically occupied by a small group of individuals (perhaps a single extended family) for a long period. Logically, the site would have been used seasonally as a dispersal phase camp. This last conclusion is supported by the negative archaeological evidence at the site, which includes the absence of features like house pits, hearths and burials. Site VC-1/H, then, is likely one seasonal component of the early prehistoric settlement system for the upper Santa Clara River drainage.

4. PROJECT IMPACTS

a. Significance Threshold Criteria

State CEQA Guidelines Appendix G and the *City of Santa Clarita Environmental Guidelines* identify criteria for determining whether a project's impacts on cultural resources would to be significant, including, as applicable here, whether the project would:

- cause a substantial adverse change in the significance of a historical resource as defined in *State CEQA Guidelines* section 15064.5;
- cause a substantial adverse change in the significance of an archeological resource pursuant to *State CEQA Guidelines* section 15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

Environmental impacts associated with cultural resources are specifically addressed in the *State CEQA Guidelines* section 15064.5, which states:

> *(b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.*
>
> *(c) CEQA applies to effects on archeological sites.*
>
> *(1) When a project will impact an archeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a)….*
>
> *(3) If an archeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2)….*

> *(4) If an archeological resource is nether a unique archeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment….*

Public Resources Code section 21083.2 (g) provides:

> *(g) As used in this section 'unique archeological resource' means an archeological 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:*
>
> *(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
>
> *(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
>
> *(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

Continuing, Section 21083.2(h) defines a "nonunique archeological resource" as follows:

> *(h) As used in this section, 'nonunique archeological resource' means an archeological artifact, object, or site which does not meet the criteria in subdivision (g). A nonunique archeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects.*

At certain stages of development, the project could potentially impact the three cultural sites discussed above. As proposed, site preparation for the project includes a cut and fill grading operation totaling approximately 1.4 million cubic yards, combined with approximately 1.7 million cubic yards of remedial grading and up to 500,000 cubic yards of import, for project development and construction of roadways within the project site. Buried bank stabilization is proposed along both sides of the Santa Clara River to allow for the construction of the project, the extension of Lost Canyon Road, and the construction of the Vista Canyon Road Bridge. Also proposed is the construction of roadways, parks, trails and building foundations, and trenching for utilities and storm drains.

b. Construction/Operational-Related Impacts

(1) Site VC-1/H

Site VC-1/H is a small campsite. Based on the recovered artifact assemblage, the site appears to represent a *Middle Period* settlement dating from circa 4,000 to 1,500 B.P. The site further appears to have been seasonally occupied by a small group of people whose subsistence practices emphasized plant foods, probably hard seeds, and a generalized hunting pattern. The site contains an intact subsurface deposit

and artifacts that hold the potential for contributing to the understanding of the prehistory of this portion of California and, therefore, is considered a unique archeological resource as defined in Public Resources Code section 21083.2(g).

The Mitchell family cemetery is also located on the project site and contains at least 20 marked and unmarked graves. The Mitchell family members were important early settlers in this portion of Santa Clarita and still have decedents in the area. This site is considered to meet the criteria for a historical resource, and development at this locale has the potential to result in significant impacts. Prior to Phase II fieldwork, the project applicant decided to preserve the Mitchell family cemetery as part of the proposed project.

Construction or development on Site VC-1/H has the potential to result in significant impacts to cultural resources. While the project is designed to preserve the cemetery, significant historical resources still remain in Site VC-1/H in the form of prehistoric artifacts. Impacts to the prehistoric site can be mitigated through salvaging of materials found at the site in a Phase III data recovery program. Preservation of the site is infeasible as it would result in the loss of all development in Planning Area 4 of the proposed project, which would conflict with project objectives.

(2) Site VC-2/H

The second site recorded within the study area is the Mitchell family homestead, founded in 1860. It covers an area estimated at 300 by 185 meters in size. Although no structures are still standing, eight archaeological features were observed, at least some of which may date to the period of the early homestead. Most of the site is being preserved as part of the project's Oak Park. Further, adverse impacts to portions of the site not preserved shall be mitigated through the salvage of materials as part of a Phase III data recovery program.

5. MITIGATION MEASURES ALREADY INCORPORATED INTO THE PROJECT

- Site VC-1/H contains the Mitchell family cemetery. This site shall be preserved in perpetuity.

6. MITIGATION MEASURES PROPOSED BY THIS EIR

4.18-1 Site VC-1/H contains an intact subsurface deposit and artifacts that hold the potential for contributing to the understanding of the prehistory of this portion of California. A Phase III data recovery (salvage excavation) program shall be conducted on Site VC-1/H prior to grading activities.

4.18-2 Site VC-2/H contains the remains of the Mitchell family homestead, which may contain important subsurface archeological deposits. A Phase III data recovery (salvage excavation) program shall be conducted on Site VC-2/H prior to grading activities.

4.18-3 In the event that cultural resources are found during construction, activity shall stop and a qualified archaeologist shall be contacted to evaluate the resources. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation will be made available. Construction on other parts of the project site may proceed in accordance with Public Resources Code section 21083.2(i).

4.18-4 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.

7. CUMULATIVE IMPACTS

As discussed above, the project site contains cultural resources. Implementation of the proposed project would represent an incremental adverse cumulative impact to cultural resources. However, provided that the recommended mitigation measures are adopted and implemented, the project is not anticipated to contribute to significant cumulative impacts. Therefore, the project will have a less than significant impact on cultural resources, and its effects would not be cumulatively considerable.

8. CUMULATIVE MITIGATION MEASURES

No further mitigation is recommended because the project-specific mitigation measures would ensure that impacts are not cumulatively considerable.

9. SIGNIFICANT UNAVOIDABLE IMPACTS

Provided that the proposed mitigation measures are properly implemented, no unavoidable significant impacts are expected to result from implementation of the proposed project.