4.18 CULTURAL RESOURCES

1. SUMMARY

Phase I and II archaeological surveys of cultural resources in the proposed project area were undertaken. These surveys have resulted in the discovery and recording of three prehistoric and one historic archaeological sites. Phase II archaeological studies were conducted at two of the prehistoric archaeological sites. One site was found to be a small, low-density campsite, which includes a low-density subsurface deposit. The site appears to be a non-unique archeological resource, representing a terminal Early Millingstone/Early Intermediate Period settlement dating from c. 4000 to 2000 years before present (B.P.). It further appears to have been seasonally occupied by a small group of people, whose subsistence practices emphasized plant foods, probably hard seeds.

The second site contains a subsurface archeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. This site is culturally significant and the applicant has designed the project so as to preserve it in situ in perpetuity within the open space areas.

Inadvertent direct and/or indirect disturbance during construction of the proposed project to any sensitive cultural resource found on the site would be considered a significant impact. Mitigation measures are proposed that reduce the magnitude of potential impacts to cultural resources to less than significant levels.

2. INTRODUCTION

The following analysis is summarized from Phase I and Phase II cultural resource surveys and reports prepared by W&S Consultants. The Phase I and Phase II reports were completed in August 2001 and April 2002, respectively. These reports are found in **Appendix 4.18** of this EIR.

The Phase I archaeological survey was intended to provide: a background study and an archival records search to determine if any known archaeological sites were present in the study area and/or whether the area had been previously and systematically studied by archaeologists; an on-foot, intensive survey of the study area to identify previously unrecorded cultural resources; and a preliminary assessment of such resources, should any be found within the subject property. One unique prehistoric archaeological site was found. Subsequent testing determined that this site was actually two

archaeological sites. Phase II archaeological test excavations were conducted to determine the size and significance of these two prehistoric archaeological sites and thereby to provide baseline data from which an assessment of potential adverse impacts to these resources could be made.

3. EXISTING CONDITIONS

The Phase I study area consists of 750 acres lying immediately east of Bouquet Junction, in northern Los Angeles County, California.[1] The Riverpark project site is located on 695.4 acres within the Phase I study area in Soledad Canyon. It includes the flood channel and river course of the Santa Clara River from its confluence with Bouquet Canyon, eastwards (upstream) along Soledad Canyon for roughly 4.4 kilometers (kms), and from Soledad Canyon Road northwards, or across the flood and stream channel to include the northern canyon sides of Soledad Canyon. In the central portion of the study area this includes a series of broad river terraces.

Although historic and recent land-use changes have altered the environment considerably from what existed during prehistoric times, at least four major plant associations probably characterized the region containing these two sites during the aboriginal period. These are chaparral, coastal sage scrub, southern oak woodlands, and riparian associations.

The project area currently consists primarily of undeveloped open-space, although there are pipeline and utility corridors across the site. Currently, the site is occupied by a construction company office housed in a temporary trailer, a temporary storage building, a maintenance building, and a storage yard. The construction company buildings currently on site occupy approximately 5,566 square feet. The buildings are located in a small valley in the central portion of the northern half of the site. This portion of the site was previously occupied by Los Angeles Fire Camp 4. The camp buildings were last occupied by the Saugus Unified School District until the buildings were demolished in 1995. Except for major site grading for water utilities between 1989 and 1994, the majority of the site has been generally undeveloped land.

Moreover, the majority of the 750 acres consists of the stream course and floodplain of the Santa Clara River; due to the potential for seasonal flooding, these zones have experienced little or no former use. Vegetation in the proposed project area, accordingly, consists of a riparian association on the river bottom and sage-scrub in upland areas, terraces, and canyon sides. The flat river terraces on the northern side of the study area in some cases have been graded and/or cultivated, and are currently

---

1 An area larger than the Riverpark project site, which consists of 695.4 acres, was studied at the request of the project applicant.

covered with oat hay, wild mustard and other non-indigenous species. Both archaeological survey site areas have been periodically disked, if not plowed, and used as agricultural fields. Since 1985, the agricultural operations on the project site have been limited to dry land farming, primarily barley and hay crops and, during various seasons, beekeepers work on the site.

a. Ethnographic Background

The Upper Santa Clara Valley region, including the Santa Clarita/Newhall area, appears to have been inhabited during the anthropological past by an ethnolinguistic group known as the Tataviam. This native American Indian culture is thought to have inhabited the upper Santa Clara River drainage from about Piru eastwards to just beyond the Vasquez Rocks/Aqua Dulce area; southward as far as Newhall; and northward to the middle reaches of Piru Creek. Their northern boundary most likely ran along the northern foothills of the Liebre Mountains (i.e., the edge of the Antelope Valley), and then crossed to the southern slopes of the Sawmill Mountains and the Sierra Pelona, extending as far east as Soledad Pass. The southern boundary ran approximately along the crest of the of the western arm of the San Gabriel Mountains, north of San Fernando, and westward beyond Fremont and San Fernando Pass to the Santa Susana Mountains.

Known Tataviam villages during the historic period include: pi?irukung and ?akavaya, both near modern Piru; tsavayu(?u)ng, Rancho San Francisco; etseng, kuvung, and huyung, on Piru Creek above Piru; tochonanga, near Newhall at the head of the Santa Clara River; and kwarung, Elizabeth Lake. At kamlus, near modern Rancho Camluos, a mixed Chumash-Tataviam population lived. Tsavayu(?u)ng, Rancho San Francisco, and tochonanga, Newhall are recorded historical localities closest to the project area.

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

Very little is known of the Tataviam social and political organization. Based on analogies with surrounding groups, it can be suggested that they were organized in a series of tribelets, similar to the naciones, 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. They usually included one large, "capital" village, sometimes occupied year-round, and a series of smaller,

seasonally employed hamlets. Whether the Tataviam may have 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 at the time of Euro-American contact, and that only two or three of the largest villages existed throughout their territory.

Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, with a number of their villages briefly described by members of the Portolá expedition of 1769, a general lack of information on this group exists. By 1810, all Tataviam had been baptized at Mission San Fernando and were quickly absorbed by other groups through intermarriage. The last speaker of Tataviam died in 1916.

b. Archaeological Background

In regards to archaeology, more information is available on the Upper Santa Clara River area, although here, too, less is known than for many of the surrounding regions of Southern California. In general terms, the prehistory of this inland area appears to parallel that of the Santa Barbara Channel/Southern California coastal zone (cf. McIntyre 1990) with William Wallace's (1955) cultural historical framework appropriate as a chronological system of reference.

Correspondingly, the earliest evidence for human occupation of this region corresponds to Wallace's Early Millingstone Period (or, alternatively, the Early Horizon), dated from about 7000 to 4000 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 assemblage, correspondingly, dominated by manos and metates. Evidence for an Early Millingstone occupation of this specific region is very limited, and has been found only at two sites. Both of these are located near Vasquez Rocks, with temporal attribution based on the presence of a small number of Olivella barrel beads. Such beads have subsequently proven to be unreliable temporal indicators, throwing doubt on human inhabitation of this region prior to 4000 B.P. Further, recent excavations at one of these putative early locales, the Escondido Canyon Site, failed to uncover evidence for occupation prior to about 2700 B.P. (Love 1990).

The second temporal unit in Wallace's chronology is the Intermediate Period (or Middle Horizon), dated from 3500 to 1500 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 Clarita Valley region is substantial, in that it has been found at a number of sites and has been based on radiocarbon, obsidian hydration and typological dating (McIntyre 1990).

Furthermore, the Intermediate Period appears to represent a time during which a substantial exploitation of mid-altitude environments first began, for example, portions of the Hathaway Ranch (located northwest of the study area) beginning at this time.

There is continuity in the inland regions between the Intermediate Period and subsequent times, labeled the Late Prehistoric Period, lasting from 1500 B.P. to historic contact, about 200 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 and Late Prehistoric 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). These artifact types, in fact, 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. Sometime during this period the Tataviam can be hypothesized to have occupied this region, although it is possible that they may have appeared somewhat earlier.

During the Historic Period, the aboriginal population appears to have dropped considerably. This decline can be attributed to the effects of missionization and its attendant relocation of the aboriginal population at centralized locales, along with the depredation of introduced Old World diseases. The Upper Santa Clara River region appears to be one of those inland zones, like the Antelope Valley to the northeast, that quickly and completely lost its aboriginal population.

c. Historical Background

Apparently 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 (Cleland 1940). 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. Thus, 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.

The 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 was also the first location of true oil drilling (Smith 1977). Petroleum exploration began about 1865, when oil seeps were discovered in Pico Canyon. This lead 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 (Franks and Lambert 1985). This initiated an oil boom in the area, with the development of the Newhall oil field, and the establishment of the Pioneer Oil Refinery (Ultimately, the predecessor to Chevron Oil) in 1876 (Rolle 1991).

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 River Valley on March 12 and 13, 1928. With the failure of the dam near midnight on the March 12th, water raged down San Francisquito Canyon, through the project site, to Castaic Junction, which it effectively leveled, and then on to Fillmore, Santa Paula and ultimately to the Pacific. 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.

d. Phase I

(1) Records Search Results

An archival records search was conducted at the California State University, Fullerton, Archaeological Information Center (AIC), by AIC staff members to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the 750 acre study area; (ii) if all or portions of the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive.

The records search at the AIC indicated that portions of the study area had been previously surveyed by archaeologists. Specifically, five surveys had investigated portions of the study area, principally

the western end of the study area, excluding the upper river terraces along the northern side of the canyon and the eastern one-third of the property. These surveys had resulted in the discovery and recording of three prehistoric archaeological sites. A summary of the nature and current conditions of each of these prehistoric sites is provided below.

CA-LAN-351: This is a large site first recorded in 1968. It is located in the approximate center of the study area, on a series of three river terraces ranging from about 1210 to 1280 feet above mean sea level on the north side of Soledad Canyon Road. The site was revisited and site update forms were completed in 1986, and subsequently in 1991. The estimate for site size on this latest update was 309 meters N-S by 185 meters E-W, with a projected 60 cm of depth for the archaeological deposit present at the site. According to the 1991 update, the site was believed to contain a midden deposit along its southeastern side. An inventory of artifacts noted on the groundsurface at that time comprised a wide range of tools and debitage, including groundstone, core tools, bifaces, and burnt bone. From the size of the site, its diversity of artifacts, the presence of a midden deposit, burnt bone and fire-cracked rocks, CA-LAN-351 can be inferred to represent a village or habitation site. Furthermore, the presence of mortar/bowl fragments suggests that it at least in part post-dates the Early Horizon; that is, that it is approximately 3500 years or less in age.

CA-LAN-1824: This site was recorded in 1986 and a Phase II test was conducted on it in 1990. It was revisited and a site update was completed for it in 1991. According to the documents resulting from these studies and visits, when first discovered CA-LAN-1824 was described as a lithic scatter, located on the south side of the Santa Clara River, within the active flood channel area. It contained one rhyolite core, one quartzite cobble tool and one metavolcanic flake. When tested in 1990 these artifacts could not be re-located, perhaps due to seasonal inundations of the flood channel. A single mano and piece of shellfish were found on and collected from the site, but sub-surface testing failed to reveal the presence of any buried archaeological deposit. When re-visited in 1991, no additional cultural materials could be found on the site area.

It is apparent that any cultural materials once present on this site are no longer on the site, most likely removed as a result of seasonal inundation of flood waters. The area of CA-LAN-1824, therefore, can no longer be considered an archaeological site. Based upon California Environmental Quality Act (CEQA) Guidelines, the previous archaeological work at this locality has served to completely and adequately mitigate any adverse impacts to cultural resources at this site.

CA-LAN-1829: This site was discovered and recorded in 1986, and it was re-visited and evaluated in 1991. The site was originally described as an "extremely sparse lithic scatter", consisting of one

rhyolite and one quartz flake located along a power line road in the flood channel immediately north of the Santa Clara River. During the 1991 re-visitation and evaluation of the site, it was noted that since the site consisted only of two waste flakes, it originally should have been recorded as two isolates, following the State of California Office of Historic Preservation (OHP) Guidelines; that is, that it did not rightly meet the primary criterion used to define an archaeological site. Moreover neither the two original flakes nor any additional archaeological remains could be found in the area of the site during the 1991 re-visit.

Inasmuch as CA-LAN-1829 apparently represents isolated artifacts rather than a site per se, and following OHP and CEQA Guidelines, the recording of the two waste flakes originally constituting the extant cultural resources present at this locality has served to completely and adequately mitigate any adverse impacts that it might experience due to development or use of the area. In summary, because the artifacts have been recorded, this, in itself, will mitigate any significant impacts.

The archival records search also considered the possibility that historical archaeological resources might be present within the study area. Historical records in the form of the Santa Susana (1903 and 1941) and San Fernando (1900 and 1940) USGS 15' topographical quadrangles were examined to determine whether historical resources might be present on the property. No evidence of historical development in the study area, per se, was found on these maps, although roads and the Southern Pacific Railroad were present in the region by the turn of the century, and Saugus, the original locale for Newhall, had been developed. However, one historical site has been recorded within the study area. This is CA-LAN-2105H, the Los Angeles Aqueduct.

Although this active water line strictly lies within the study area, it is important to note that it sits within a utility easement; therefore, it lies outside of any proposed development or use.

(2) Field Survey Results

A field survey of the 750 acres study area was conducted by David S. Whitley, Ph.D., Joseph M. Simon, and Tamara K. Whitley, M.A., of the W & S Consultants staff, in July, 2001. The groundsurface was examined with transects spaced at approximate 10 - 15 meter intervals; these were walked across the study area to identify artifacts or other archaeological indicators that might be present on the groundsurface. Particular attention was paid to localized micro-geomorphological contexts favorable for the preservation or burial of archaeological remains, such as aggradational environments at the toeslopes of grades and hills, and stable surfaces such as captured fans. Cut-banks and animal burrows were examined to determine whether buried cultural deposits might be present on the property.

The Phase I archaeological survey of the study area resulted in the discovery of two isolated artifacts, called isolates, within the study area. These two newly discovered isolates both represent examples of lithic debitage. The Phase I survey also allowed for a re-examination of the CA-LAN-351 site and the areas originally containing sites CA-LAN-1824 and -1829. The significance of the two isolates, reexamination of site CA-LAN-351, and the areas originally containing sites CA-LAN-1824 and -1829 are discussed below.

(a) Newly Discovered Cultural Resources

Isolate #1: A small piece of chert debitage found on a low knoll immediately north and overlooking the Santa Clara River on the eastern side of the study area. The specimen appears to be a piece of angular shatter. Chert does not occur locally within the study area; therefore, it must be inferred that this specimen was transported by human hands onto this locality. An intensive search in the immediate area of its discovery failed to uncover any additional evidence of cultural remains. This isolated piece of lithic debitage is considered a non-unique archaeological resource and has been recorded as part of the current Phase I study. According to CEQA, this has served to completely and adequately mitigate all potential adverse impacts to this cultural resource. Therefore, under CEQA Guidelines, no additional archaeological work is required or needs to be performed at this locale.

Isolate #2: This specimen was found on a low terrace on the north side of the river, east of the Los Angeles Aqueduct easement. It consists of a single chert primary flake. This is a large cortical flake, with evidence of fire-spalling, which may have resulted from a brush fire, or from heat-treatment in manufacture. No additional cultural resources could be found at the location of this waste flake, although the area was examined intensively. This isolated specimen of lithic debitage is considered a non-unique archaeological resource and has been recorded as part of the current Phase I study. According to CEQA, this has served to completely and adequately mitigate all potential adverse impacts to this cultural resource. Therefore, under CEQA Guidelines, no additional archaeological work is required or needs to be performed at this locale.

(b) Previously Recorded Cultural Resources

As noted previously, three prehistoric and one historical archaeological sites had been recorded within the study area. Each of these was visited and evaluated during the Phase I survey. The status and recommendation for each of these four sites is discussed below.

CA-LAN-351: Examination of this site revealed field conditions much in agreement with those described in the previous visit and evaluation. The site is apparently a large habitation, with archaeological remains spread over three river terraces, which are immediately adjacent to a bend in the course of the Santa Clara River.

Artifacts on CA-LAN-351 were similar in diversity and number to those reported by the 1991 field crew. In addition to debitage, they included groundstone (manos, metate and pestle fragments), cobble chopping tools, flaked stone tools (biface knife and biface edges), fire-cracked rock and burnt bone. Although the primary surface expression of the midden is currently on the eastern side of the middle terrace, it is very likely that downslope colluviation is mantling midden extending further to the west. Those portions of the site located on the lower and middle terraces appear to maintain high integrity and, therefore, are in good condition.

As noted in previous evaluations of the site, the upper terrace was graded sometime prior to the 1986 update, and was used for a model airplane runway. A berm of the graded material currently rims the upper terrace on its eastern and southern sides. Judging from the fact that portions of the terrace immediately inside the berm have developed stands of sage and buckwheat, this grading probably occurred a few decades or more ago. A brow-ditch, presumably for erosion control, also runs along the rim of this terrace. It is apparent that this ditch cuts into an intact, non-cultural deposit of (probably Early or Middle Pleistocene Age) alluvial cobbles. Although this rim of the upper terrace has been identified as an area of high artifact density, it is apparent that it has suffered from considerable disturbance. Further, although at one time this rim area may have been a zone of high artifact density, the exposed Pleistocene cobble lens indicates that there was no sub-surface archaeological deposit in this immediate area, and only three surface artifacts were noted along this rim area. Intact pockets of midden were observed on the upper terrace, northwest of the berm and brow-ditch. Thus, although portions of the upper terrace were found to be more heavily disturbed than previously noted, it is also clear that there are more extant archaeological remains in this area than originally believed.

As noted previously, the presence of midden and the artifact assemblage observed on the groundsurface of the site indicate that CA-LAN-351 represents a village or habitation site. The presence of mortars/bowls and pestles suggest that it has a maximum age of about 3500 years, although it may be considerably younger. There is, however, no ethnohistorical evidence that there was a historical village in the area of the site, thus indicating that it is prehistoric and not potentially historical in age.

This prehistoric site has the potential to contain scientific information useful for the reconstruction of prehistoric lifeways in the Santa Clara Valley region, and/or artifacts or features that may be of religious importance to Native Americans. Development of the area containing CA-LAN-351, therefore, has the potential to result in significant adverse impacts to cultural resources. A Phase II test excavation and determination of site significance was recommended to be conducted prior to any development of the area of the site, to provide baseline data from which an accurate estimate of the nature, size and significance of CA-LAN-351 can be established, and from which final management recommendations can be made.

CA-LAN-1824: This site was a small surface scatter that consisted solely of a mano and a single piece of shellfish when tested in 1990. Based on that Phase II test, no additional archaeological work was recommended as necessary at this site. As noted in 1991, however, the sparsity of artifacts at this locale indicate that it did not meet the OHP definitional criterion for an archaeological site, but instead comprised solely isolated finds, the recording of which serves to adequately and completely mitigate any adverse impacts resulting from development or use of the area.

During the current Phase I survey the area of site, CA-LAN-1824 was re-visited and intensively examined. No evidence of additional extant artifacts were found at this locale, thus confirming the results of an earlier, 1991 re-examination. CA-LAN-1824 represents an isolated artifact rather than an archaeological site, per se, and there are currently no extant cultural remains at this locale. Following CEQA Guidelines, all potential impacts to this cultural resource have been mitigated by the recording of this artifact. No additional archaeological work is required at the former locale of CA-LAN-1824.

CA-LAN-1829: Circumstances at CA-LAN-1829 were very similar to those at CA-LAN-1824: originally recorded as a lithic scatter of two flakes, no cultural materials could be re-located in 1991 and, at that time, it was noted that the site should have been recorded originally as two isolated artifacts, rather than as a site, per se. No extant evidence of cultural materials were found at this locale, thus confirming the results of the 1991 re-examination.

As with the previous site, CA-LAN-1829 correctly represents an isolated artifact occurrence rather than an archaeological site, per se, with no extant remains now present at this locale. All potential adverse impacts to this cultural resource, therefore, have been completely and adequately mitigated. No additional archaeological work is required needs to be performed at this locale.

CA-LAN-2105H: This site, the Los Angeles Aqueduct, is currently in use, and lies in an easement across the study area. The proposed development will bridge over the aqueduct with Newhall Ranch Road

and the Santa Clara River Trail. Therefore, there is no potential for adverse impacts to this historical cultural resource. No additional archaeological work is required needs to be performed at this locale.

Conclusions and Recommendations of the Phase I Archaeological Survey

The following cultural resources are or at one time were present within this study area: CA-LAN-351, a prehistoric habitation site that is currently in good to fair condition; CA-LAN-1824 and -1829, both of which were recorded in 1986 but are no longer present on the property, and both of which represent isolated artifacts; Isolates #1 and #2, which were recorded during the current field study and which represent isolated finds of single chert flakes; and CA-LAN-2105H, the Los Angeles Aqueduct, which is still in use. A Phase II report was recommended for CA-LAN-351.

CA-LAN-351: This large prehistoric site that has the potential to contain scientific information useful for the reconstruction of prehistoric lifeways in the Santa Clara Valley region, and/or artifacts or features that may be of religious importance to Native Americans. Development of the area containing CA-LAN-351, therefore, has the potential to result in adverse impacts to cultural resources. A Phase II test excavation and determination of site significance was recommended to be conducted prior to any development of the area of the site, to provide baseline data from which an accurate estimate of the nature, size and significance of CA-LAN-351 can be established, and from which final management recommendations can be made.

e. Phase II

(1) Introduction

A Phase II analysis was conducted for CA-LAN-351 in March 2002. David S. Whitley, Ph.D., and Joseph M. Simon served as principal investigators for the project; while the laboratory analyses were conducted by Tamara K. Whitley, M.A. Richard Angulo, representing the California Indian Foundation, served as Native American monitor for the project. Procedures followed in the collection of data useful for establishing the nature and significance of the site included mapping, surface collecting of artifacts lying on the groundsurface, and test excavation of pits and/or auger holes to establish the presence or absence of a subsurface archaeological deposit, as well as to characterize such a deposit if found to be present.

During Phase II fieldwork, it became apparent that CA-LAN-351, originally considered part of a single cultural resource, was more correctly defined as two sites, each warranting its own designation.

CA-LAN-351 was divided into two sites, CA-LAN-351 and CA-LAN-3043.[2] The designation of CA-LAN-351 was retained for the primary area of original discovery, which is the archaeological deposit on the lower terraces and the second site area, CA-LAN-3043, is located on the third terrace above the stream bed. This determination is discussed in more detail below.

(2) Field Study Methods and Results

CA-LAN-351 was revisited and examined by W&S Consultants as part of the Phase I report for the Riverpark project in 2001.[3] Although generally concurring with the previous studies, the possibility of a separate sub-surface archaeological deposit on the upper of the three terraces was noted. Moreover, the soils context of the upper terrace appeared different from that seen in the lower two. Combined with the fact that the two areas were separated by a distance of roughly 100 feet on a steep slope with an elevational change of over 25 feet, these circumstances suggested that the large area originally recorded as a single site perhaps should more correctly be considered two distinct archaeological sites. However, it was recognized that a decision on this point would best be made during archaeological testing, when the distribution of artifacts and deposits could be confirmed or clarified.

Phase II fieldwork at this location quickly confirmed these suppositions: two archaeological deposits are present and these are geographically distinct and appear to differ (for reasons discussed subsequently) in cultural-historical terms. The designation of CA-LAN-351 was retained for the primary area of original discovery, which is the archaeological deposit on the lower terraces. This covers the first and second terraces above the stream bottom, which range from 1210 to almost 1260 feet in elevation. The second site area, CA-LAN-3043, is located on the third terrace above the streambed. Elevation for this site ranges from about 1280 to 1285 feet.

Phase II archaeological test excavations were conducted at sites CA-LAN-351 and CA-LAN-3043. Both sites are located within the Riverpark project area in northern Los Angeles County. This archaeological study was intended to determine the size and significance of these two prehistoric archaeological sites and thereby to provide baseline data from which an assessment of potential adverse impacts to these resources could be made. These data have been employed to develop final management recommendations for the treatment of these cultural resources.

---

2 Personal communication with Joseph Simon, W&S Consultants, March 24, 2003. CA-LAN-3043 was temporarily designated NLF/W&S-1.

3 Approximately 750 acres, inclusive of the 695.4-acre Riverpark project area, were previously surveyed by W&S Consultants at the request of the project applicant.

(a) CA-LAN-351

Circumstances with respect to the management issues and, therefore, the nature of the fieldwork at CA-LAN-351 were somewhat different than those at CA-LAN-3043. Prior to fieldwork, the applicant made the decision to preserve CA-LAN-351, in perpetuity, in open-space. The primary goal of work at this site, therefore, was exclusively to define its maximum boundaries, meanwhile minimizing any impacts to the site that otherwise might result from archaeological testing, as required by CEQA. Moreover, because of the setting of the site, boundary definition primarily concerned the southwestern quarter of the site: the northern and northwestern edges of the site are clearly defined by steep slopes leading to the third terrace above the river; the eastern and southern boundaries are defined by the stream bed itself. Definition of the southwestern site boundary was particularly important because of the likelihood that a bridge will one day be constructed across the Santa Clara River to the west of the CA-LAN-351 site.

Fieldwork at CA-LAN-351 involved two procedures. The first was an intensive visual examination of the surface artifact distribution on the site. This was completed using crew members walking transects across the site spaced at 2-meter intervals, placing pin flags at the locations of surface artifacts and archaeological specimens. This provided a maximum extent for the surface component, which is invariably larger than any subsurface deposit (due to natural and cultural spreading of artifacts, for example by disking or plowing, or downslope movement). Moreover, because the surface scatter associated with a subsurface deposit is typically twice as large as the buried deposit, this also meant that site boundary definition would result in a substantial buffer around the midden deposit.

Once the maximum size of the surface component was established, a series of three auger holes were hand-excavated along the identified southwestern site limit, with soils from these auger holes screened through 1/8th inch mesh. This confirmed that no subsurface archaeological deposit was present along this southwestern edge which might extend beyond the defined site limit.

For the reasons discussed previously, fieldwork at CA-LAN-351 did not involve any artifact collection or excavation but instead was directed towards accurate site boundary definition. This was based on three lines of evidence.

- Geomorphological constraints, including the river bottom and steep slopes, conclusively define the limits of the site deposit on the north, south and east, as well as along the northwest quarter; that is, natural conditions which limit the size of the two stream terraces establish all but the boundary along the southwestern edge of the site.

- Surface artifact distributions were used to identify the maximum extent of the surface artifact scatter. Surface artifact concentrations were highest along the eastern edge of the deposit, which is formed by a bend in the Santa Clara River. Because the site area overall slopes upwards towards the north, reflecting the fact that it extends across two stream terraces, the eastern site limit represents a cut-bank that is increasingly high towards the north. At the site's northeastern limit this is essentially a cliff-brow. Surface artifact distribution was continuous across the two lower stream terraces but, on average, did not exceed more than one artifact per meter square, and thinned laterally towards the south and southwest. The maximum southwestern extent of surficial remains—waste flakes—was essentially immediately beyond and west of the lowest stream terrace, in the sandy stream bottom and flood zone.

- Auger testing occurred along the southwestern site boundary, as defined by the surface artifact distribution, to ensure that the subsurface deposit did not extend to this limit. This supposition was proven correct by the auger results, which lacked any evidence of subsurface archaeological remains at the limits of the surface finds.

The CA-LAN-351 site area was defined as a maximum of 215 m NE-SW by 92 m SE-NW. The site area is generally ovoid, and is, therefore, less than 19,780 meters square in size.

Because of the planned preservation of this site, there was no justification for subsurface testing given CEQA's requirement for minimizing adverse effects during environmental evaluations; that is because archaeological testing is itself inherently destructive. Although the size of the subsurface deposit was not estimated, it is clear that it is substantially smaller than the size of the surface component provided above. No artifacts or archaeological specimens were collected from CA-LAN-351.

(b) CA-LAN-3043

The third terrace above the river consists of a large open area that appears relatively flat, but in fact, contains a minor, internally draining central depression. The site area had been disked and graded in some areas. Furthermore, the southern site edge, along the brow of the terrace, appears to have been graded and lowered, suggesting that the internally draining central depression was once larger than it currently appears; alternatively, this edge may have been reduced by wind but, regardless of cause, the result is a slight lag deposit of coarser clasts and cobbles—a condition with archaeological implications, discussed below. A dirt road also skirts the southern terrace edge, further contributing to disturbance in this area.

Fieldwork at site CA-LAN-3043 involved surface collecting, mapping and subsurface excavation. In order to determine the maximum areal extent of the site, the initial field procedure was to locate, map and collect all surface remains present on the groundsurface. In order to identify all such remains, the general area of the site was walked by crewmembers spaced in approximate 2-meter intervals. Identified artifacts and archaeological indicators were then marked with flagging tape. Surface

remains found within an area of approximately 3 meters square in size (i.e., within a circle with a 1-meter radius) were treated as discrete artifact associations and collected as clusters. Transit, stadia and surveyor's chain were subsequently used to map all remains or clusters of remains, which were numbered and collected by these provenience points. Slightly complex and unusual geomorphological conditions at the site were important influences on both the surface collecting and excavation results.

Excavation

Fifteen 1 x 1 meter test pits (units) were hand excavated on the site. Excavation units were designated numerically. Each unit was dug with pick, shovel and trowel in arbitrary 10-centimeter spits or levels. Spoils from each of these levels were screened through 1/8-inch mesh. All artifacts and archaeological indicators were collected and bagged by unit level. In the initial excavated units, digging was continued for approximately 50 cm beyond the apparent termination of the cultural deposit and/or an auger was excavated in the bottom of the pit, in order to obtain a clear indication of the soils stratigraphy present. Subsequent to stratigraphic definition and profiling, excavation was continued through two culturally sterile levels (i.e., 20 centimeters), or until parent material was encountered. The earth materials are encountered in layers called "Horizons". Excavation unit results can be summarized using these soil descriptions for reference. Descriptions of the soil horizons are as follows:

- A Horizon: This ranges from about 30 to 50 cm depth. The contact between A and the lower B Horizon is gradual. The A Horizon is artifact bearing in portions of the tested area.
- B Horizon: Its thickness ranges from 20 to 90 cm. Portions of the B Horizon are artifact bearing.
- C Horizon: The C Horizon is culturally sterile.

The excavation results suggest the following. First, soils have accumulated in the central portion of the defined site area, which is essentially a slight depression. Second, a low-density subsurface archaeological deposit is contained within portions of the A and B Horizons of some of the units. Third, the vertical distribution of the recovered artifacts (which, like most sites, are heavily predominated by lithic debitage or waste flakes) suggests that use of the site as represented by A Horizon materials reflects a continuation of the same areal use seen in the B Horizon; that is, the same units tend to have significant numbers of artifacts in both the A and B Horizons. This prehistoric use centered around Unit #4 and, thus, the center of the depression. Fourth, overall site area can be estimated at 210 meters E-W by 135 meters N-S. The site area is irregular in shape, partly because the eastern and southern boundaries are formed by the terrace edges, but overall site size can be estimated at about 28,350 meters square.

Surface Collecting

The distribution of surface artifacts (formal tools) was found to correspond to a disturbed band along the southern edge of the site and the terrace that contains it. A total of 26 specimens were recovered during this procedure, almost all of which are groundstone artifacts. Because of the context of recovered artifacts—on the surface in a disturbed area—the interpretation of them is ambiguous. They may represent a "true" surface scatter that is younger than the subsurface deposit; alternatively, they may represent a lag deposit derived from the underlying, deflated cultural deposit. In either case, their restricted distribution may reflect a kind of specialized activity zone within the larger site area: as is discussed subsequently, groundstone artifacts recovered from the subsurface deposit also tend to concentrate in this same area, suggesting that the terrace rim—where prevailing winds would optimize seed winnowing—served as the locus for plant processing.

Laboratory Procedures

Although the general patterns of artifact distributions provide important information relative to the size and nature of site CA-LAN-3043, proper determination of the significance and scientific importance of this resource can only be obtained with a more intensive analysis of the recovered artifact assemblage. Following the completion of the Phase II fieldwork at CA-LAN-3043, the recovered artifact assemblage was taken to the W & S Consultants' laboratory for washing, processing and analysis. After each specimen was washed and labeled, metrical and typological analyses were performed.

Taxonomic and Analytical Considerations

In considering the artifacts recovered from the Phase II investigations at site CA-LAN-3043, a morphological stone tool typology first published in 1979 and now widely used in the region was employed. This morphological typology is based on four major categories of stone artifacts. These are: (1) groundstone implements; (2) core/cobble tools; (3) flaked stone tools; and (4) tool manufacturing waste, or debitage.

Groundstone implements are tools that have been pecked and/or ground into shape. Groundstone artifacts are usually (but not invariably) made of coarsely grained lithic materials. Core/cobble tools are generally large, bulky implements made by the re-use and/or modification of a river cobbles and lithic cores. All of these tools were apparently employed for heavy pounding, scraping and/or battering tasks. Flaked or chipped stone tools are secondary reductions from cores and cobbles. That is,

they represent tools manufactured from flakes struck-off the primary sources of lithic materials. The final category of stone artifacts is what can be considered lithic waste or debitage. It includes spent cores, waste flakes, and angular shatter.

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.

In addition, all modern or contemporary 'artifacts' recovered during excavations are recovered, 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.

Artifact Assemblage

A total of 238 prehistoric specimens were recovered from the site. Twenty-six of these were collected from the site surface. Of the remainder, 125 originated in the A Horizon deposit while 87 were excavated from the B Horizon. All but two of the prehistoric specimens were lithic tools or debitage. The two exceptions are pieces of animal bone.

The artifact assemblage is discussed in terms of major artifact classes.

Groundstone artifacts: A total of 28 pieces of groundstone was recovered from CA-LAN-3043. Nineteen of these are manos or mano fragments: eight are metate or metate fragments; one appears to be the base of a basket-hopper mortar. The manos consist of three general types: unshaped unifaces, and shaped and unshaped bifaces.

Core/cobble complex tools: Seven core/cobble complex tools were found at NLF/W&S-1. Four of these are worked artifacts, per se; the remainder are cores and, thus, strictly are a kind of debitage.

Flaked stone tools: Two flaked stone tools were recovered from CA-LAN-3043. Bifacially-flaked tool mid-sections (and terminal ends) may derive from knives, in the general sense of the term, projectile points, or drills, while projectile points may be either arrow points or spear/atlatl dart points. One specimen appears to represent a spear or atlatl point, not a knife fragment, and it is clearly neither a drill of arrow fragment. As such, it is then greater than 1500 years old (the point at which the bow and arrows were introduced), although how much older than this datum is unknown.

Lithic debitage: With respect to the total of 236 lithic artifacts recovered from the site (i.e., excluding the two pieces of animal bone), the 199 waste flakes and shatter constituted 84 percent of the lithic assemblage. When the debitage is classified, studied, and interpreted, it is suggested that the inhabitants of the site were more closely allied with groups to the east and perhaps north than to the west.

Faunal remains: Two small pieces of animal bone were recovered from the site. Both examples are small mammal in size, burnt and calcined, supporting their origin as cultural rather than natural in the deposit. The limited amount of faunal remains suggests that plant foods rather than hunted game were by far the emphasis in subsistence at CA-LAN-3043. This conclusion is also supported by the presence of groundstone and core/cobble complex tools, which often reflect plant processing activities.

Age and Function of CA-LAN-3043

Three kinds of information provide evidence concerning the age of CA-LAN-3043. The first of these is the artifact assemblage itself. Three of the recovered artifacts are temporally diagnostic, at least in very general terms. The presence of obsidian is the first of the three diagnostic artifacts. 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, suggests that it is Intermediate Period or older in age. This is confirmed by the third kind of evidence, obsidian hydration dating, which indicates that the site was at least partly used between about AD 356 and 698.

The second diagnostic artifact is the possible basket-hopper mortar base, which was found on the site surface. Artifacts of this type occur in Intermediate Period and later contexts, and thus are less than about 3500 years old. Combined with the obsidian, this brackets the site between 3500 and 800 B.P.

The third temporal diagnostic is the projectile point, which is clearly a spear or atlatl dart fragment rather than the remnants of an arrow point. This indicates that the specimen is greater than about 1500 B.P., although how much greater in age is unknown. This indicates of a minimal age bracket for CA-LAN-3043 between 3500 and 1500 B.P., which is the Intermediate Period. Note that this is a minimum estimate for the site age; it could contain artifacts that are both younger and older than this 2000 years stretch.

In addition to these positive lines of evidence within the artifact assemblage, there is also negative evidence in support of this age estimate. This concerns the absence of later dating artifacts, especially arrow points and shell beads.

The second type of information useful for dating the site is the soils context of the subsurface component. As described above, the artifacts extended into an undisturbed B Horizon or paleosol. Soils such as this are formed in wetter climates than we are experiencing today and they are most common in contexts that are 3000 or more years in age, thus dating from the middle Holocene (or earlier).

Based on these different lines of evidence, the age of site CA-LAN-3043 can be inferred minimally to pertain to the Middle Holocene. Assuming that the identification of the hopper mortar is correct, it extends into the last 3500 years and thus is all or at least partly Intermediate Period in age. Whether it extends back into Early Millingstone times is unknown although the nature of the soils suggests that this is possible. The site is hypothesized to be terminal Early Millingstone/Early Intermediate Period in age.

Functionally, site CA-LAN-3043 is best interpreted as a small campsite. This is indicated by the diversity of artifact types, which includes hunting tools (projectile point) and evidence of lithic reduction (cores, debitage and hammerstones), in addition to plant processing artifacts (groundstone, scraper plane). Plant foods, however, were clearly the subsistence emphasis. 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.

Given its size and the relatively low subsurface density of artifacts, site CA-LAN-3043 appears to have been occupied by a small group of individuals (perhaps a single extended family), sporadically 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 housepits, hearths and burials, as well as more formal types of tools, including shell beads and ornaments. CA-LAN-3043, then, is likely one seasonal component of the early prehistoric settlement system for the upper Santa Clara River drainage.

Conclusions and Recommendations of the Phase II Archaeological Survey

CA-LAN-351 was found to cover two low terraces along the north side of the Santa Clara River. Because CA-LAN-351 was already designated for in-situ preservation, Phase II fieldwork at it was

limited to boundary definition. The site area is 215 m NE-SW by 92 m SE-NW, and totals about 19,780 square meters in size.

CA-LAN-351 contains a subsurface archaeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. Development at this locale has the potential to result in adverse impacts to cultural resources. Any such adverse impacts to this site can be mitigated by avoidance and preservation.

CA-LAN-3043 was found to be a small, low-density campsite localized on the third terrace above the river. The site area was determined to be 210 meters E-W by 135 meters N-S, or about 28,350 square meters, and the site includes a low-density subsurface deposit that averages about 50 cm in depth. Based on the recovered artifact assemblage, the site appears to represent a terminal Early Millingstone/Early Intermediate Period settlement dating from circa 4000 to 2000 B.P. It further appears to have been seasonally occupied by a small group of people, whose subsistence practices emphasized plant foods, probably hard seeds. As such, CA-LAN-3043 subsurface deposits and artifacts hold the potential for contributing to our understanding of the prehistory of this portion of California, Construction or development on this site, therefore, has the potential to result in adverse impacts to significant cultural resources. Any such adverse impacts can be mitigated by avoidance and preservation. Should this be infeasible it is recommended that a Phase III data recovery (salvage excavation) be conducted on the site.

4. PROJECT IMPACTS

a. Significance Threshold Criteria

CEQA Guidelines Appendix G identifies criteria for determining whether a project's impacts on cultural resources are 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 § 15064.5; and
- Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5.

The City of Santa Clarita Environmental Guidelines further add the following two criterions in addition to the above:

- Directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature?
- Disturb any human remains, including those interred outside of formal cemeteries?

Environmental impacts associated with cultural resources are specifically addressed in the CEQA Guidelines, Section 15064.5. Section 15064.5 identifies significance threshold criteria for determining impacts to archaeological and historical resources.

Section 15064.5 states that:

> *"(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 two cultural sites discussed above. As proposed, site preparation for the project include a cut and fill operation totaling 5.5 million cubic yards, combined with approximately 3.6 million cubic yards or remedial grading, for both project development and construction of master-planned roadways (Newhall Ranch Road and Santa Clarita Parkway) within the project boundaries. Earthwork is proposed to be balanced on site. Buried bank stabilization is proposed along the Santa Clara River to allow for the construction of Newhall Ranch Road, including the Newhall Ranch Road/Golden Valley Road Bridge and residential and commercial uses on site. Generally, bank stabilization would extend from the existing terminus of Newhall Ranch Road (near Bouquet Canyon Road) to immediately east of the future Santa Clarita Parkway Bridge. Toe or erosion protection would be constructed for approximately 1,000 linear feet adjacent to the bluff containing Area B. Additional bank stabilization and concrete gunite would be constructed in the area of the Newhall Ranch Road/Golden Valley Road Bridge. The proposed project incorporates a 29-acre active/passive park area, which will have direct access to the City's Santa Clara River Trail. Except for a minor intrusion by Newhall Ranch Road, the entire 300 acres of river area within the project boundaries will remain in a natural state with some encroachment in the SEA. Also proposed is the construction of roadways and building foundations, and trenching for utilities and storm drains. Project impacts will be discussed in terms of direct and indirect potentially significant impacts.

b. Construction/Operational-Related Impacts

(1) CA-LAN-351

As described above, CA-LAN-351 contains a subsurface archaeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. Consequently, this site is considered to meet the criteria for an historical resource, and development at this locale has the potential to result in significant impacts. Prior to Phase II fieldwork, the applicant made the decision as part of the project design to preserve CA-LAN-351, in situ and perpetuity, within the 470 acres of proposed open space. Consequently, all potential significant impacts to this site would be mitigated by avoidance and preservation. The project is proposing to extend portions of the Santa Clara River Trail over CA-LAN-351. As required by CEQA

Guidelines Section 15126.4(b)(3)(B), only chemically stable fill soil would be placed in these areas before creating the trail.

(2) CA-LAN-3043

As described above, archaeological site CA-LAN-3043 contains an intact subsurface deposit and artifacts which holds the potential for contributing to our understanding of the prehistory of this portion of California. Construction or development on this site, therefore, has the potential to result in adverse impacts to significant cultural resources. Adverse impacts to this site can be mitigated through salvaging of materials found at the site in a Phase III data recovery program. Preservation of this site is infeasible as it would necessitate realignment of Santa Clarita Parkway would could present engineering and design safety issue. Additionally, if the roadway were to be realigned, additional remedial grading would occur as well as a substantial loss of housing units which would be in conflict with project objectives of providing a substantial number of new housing units to accommodate regional growth in a location that is adjacent to existing and planned infrastructure.

(3) Summary

In summary, CA-LAN-351 contains a subsurface archaeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. Development at this locale has the potential to result in adverse impacts. This site is culturally significant and as part of the project design, this site would be preserved in situ in perpetuity within the 470 acres of proposed open space.

CA-LAN-3043 was found to be a small low-density campsite, which includes a low-density subsurface deposit. The site appears to represent a terminal early Millingstone/Early Intermediate Period settlement dating from circa 4000 to 2000 years before present. It further appears to have been seasonally occupied by a small group of people, whose subsistence practices emphasized plant foods, probably hard seeds. Adverse impacts to this site can be mitigated through salvaging of materials found at the site in a Phase III data recovery program.

5. MITIGATION MEASURES ALREADY INCORPORATED INTO THE PROJECT

The following mitigation measure is already incorporated into the project:

4.18-1 CA-LAN-351 contains a subsurface archaeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. This site shall be preserved in its current state in perpetuity as is demonstrated on VTTM 53425.

6. MITIGATION MEASURES PROPOSED BY THIS EIR

4.18-2 Archaeological site CA-LAN-3043 contains an intact subsurface deposit and artifacts that hold the potential for contributing to our understanding of the prehistory of this portion of California. A Phase III data recovery (salvage excavation) program shall be conducted for CA-LAN-3043 prior to grading activities.

4.18-3 Although no other significant cultural resources were observed or recorded during the surface field survey, all grading activities and surface modifications must be confined to only those areas of absolute necessity to reduce any form of impact on unrecorded (buried) cultural resources that may exist within the confines of the project area. In the event that 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 should be available. Construction on other parts of the project will be subject to Public Resources Code §21083.2(i).

7. CUMULATIVE IMPACTS

As discussed above, the proposed project site contains cultural resource. Where these resources exist, implementation of the proposed project would represent an incremental adverse cumulative impact to cultural resources. However, provided that proper mitigation, as defined by CEQA, is implemented by the proposed project, 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

Other than complying with the same mitigation that is required of the project, no further mitigation is recommended for cumulative projects.

9. UNAVOIDABLE SIGNIFICANT IMPACTS

a. Project-Specific Impacts

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

b. Cumulative Impacts

Provided that mitigation measures are properly implemented for the project, no unavoidable significant cumulative impacts are expected to result.