CULTURAL RESOURCE ASSESSMENT FOR THE HIGH TRAILS OUTDOOR SCIENCE SCHOOL PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA

USGS Big Bear Lake 7.5' Quadrangle; Township 1N, Range 1E, Section 8

Assessor's Parcel Number (APN): 0305-241-014

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MANAGEMENT SUMMARY

The High Trails Outdoor Science School proposes development of approximately 21 acres (ac) of a 40-ac parcel as an outdoor science school (hereafter Project) within the community of Seven Oaks, San Bernardino County, California. In October 2016, Applied EarthWorks, Inc. (Æ) completed a cultural resource constraints analysis of the Project area located northwest of the intersection of Patterson and Radford Camp roads. The constraints analysis included a records search at the South Central Coastal Information Center (SCCIC), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and Native American outreach. The County of San Bernardino (County), which is acting as the lead agency for the purposes of the California Environmental Quality Act (CEQA), has now requested a Phase I cultural resource assessment of the Project area. Æ was retained to conduct the Phase I cultural resource study in accordance with CEQA.

A cultural resource literature and records search conducted at the SCCIC of the California Historical Resources Information System (CHRIS) indicates that 12 known cultural resources are present within a one-mile radius of the Project area. Of these resources, only the Seven Oaks Recreation Residence District (District) lies within the Project area; no features (i.e., historical refuse scatter and water conveyance features) or structures (i.e., historical cabins) associated with the District have been documented within the Project area.

As part of the background research for the Project, Æ requested a search of the SLF from the NAHC, which was completed with negative results. However, the NAHC requested that Native American individuals and organizations be contacted to elicit information and/or concerns regarding cultural resource issues related to the proposed Project. A letter describing the Project and asking these individuals and organizations for their input was sent via mail and electronic mail on September 23, 2016. A second attempt at correspondence was made on October 7, 2016. Of the 19 groups and/or individuals contacted, three responded with comments. The Agua Caliente Band of Cahuilla Indians noted that the property is not located within the Tribe's Traditional Use Area and deferred further consultation to other tribes in the area. The Los Coyotes Band of Mission Indians stated that the property is out of their interest area. The San Manuel Band of Mission Indians noted that area is sensitive to the Tribe and that the Tribe wants to be involved when the Project moves forward. At this time, the Tribe requested a qualified archaeologist monitor all ground disturbing activity taking place below three feet of the current ground surface, including any disturbance as a result of the clearing of trees (and other similarly large vegetation).

A Phase I pedestrian survey of the 21-ac Project area was conducted by Æ archaeologists Dennis McDougall and Ken Moslak on August 11, 2017. The terrain throughout the Project area has been disturbed by forest clearing/tree removal activities. No cultural resources were identified within the Project area. Furthermore, there is little to no potential for the Project area to contain intact buried cultural deposits. Based on these findings, no further cultural resource management of the Project area is recommended.

Field notes documenting the current investigation are on file at Æ's Hemet office. A copy of this report will be placed on file at the SCCIC.

1
INTRODUCTION

In October 2016, Applied EarthWorks, Inc. (Æ) completed a cultural resource constraints analysis for the High Trails Outdoor Science School Project (Project) within the community of Seven Oaks, San Bernardino County, California. The analysis included a records search at the South Central Coastal Information Center (SCCIC), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and Native American outreach. The County of San Bernardino (County), which is acting as the lead agency for the purposes of the California Environmental Quality Act (CEQA), is now requesting a complete Phase I cultural resource study of the Project area. On behalf of High Trails Outdoor Science School, Æ conducted a Phase I cultural resource assessment in accordance with CEQA.

1.1 SCOPE AND PURPOSE OF REPORT

High Trails Outdoor Science School proposes development of approximately 21 acres (ac) of a 40-ac parcel as an outdoor science school. The Project area includes 2.55 ac in the southeast corner of the parcel proposed for 20 buildings (one main lodge and 19 student/staff/teacher housing cabins), a parking area, and vehicle access routes associated with the school. The remaining 18.45 ac consists of open areas north and west of the school facilities which would include proposed water storage tanks and wells. The approximate maximum depth of excavation for the construction activities will not exceed 42 inches (in.) below the existing ground surface and frost line.

The Project area is situated immediately north of the Santa Ana River in the San Bernardino Mountains in southwest San Bernardino County (Figure 1). Located north of State Route (SR) 38 and Radford Camp Road in the community of Seven Oaks, the Project lies in the northwest quarter of Section 8 (Township 1N / Range 1E; San Bernardino Baseline and Meridian [S.B.B.M.]) as depicted on the Big Bear Lake 7.5' Series USGS topographic quadrangle (1970; Figure 2). Elevation is approximately 5,322 to 5,520 feet (ft) above mean sea level (amsl). The parcel is undeveloped, and approximately 80 percent of the property borders undeveloped San Bernardino National Forest Land, with the other 20 percent bordering a developed summer camp on the northwest side.

1.2 REGULATORY CONTEXT

As currently proposed, this Project is subject to compliance with CEQA, as amended. Therefore, cultural resource management work conducted as part of the proposed Project shall comply with the CEQA Statutes and Guidelines (California 2017), which directs lead agencies to first determine whether cultural resources are “historically significant” resources. A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (California Code of Regulations [CCR], § 15064.5[b]). Generally, a cultural resource shall be considered “historically significant” if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets the requirements for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14 CCR, § 15064.5):

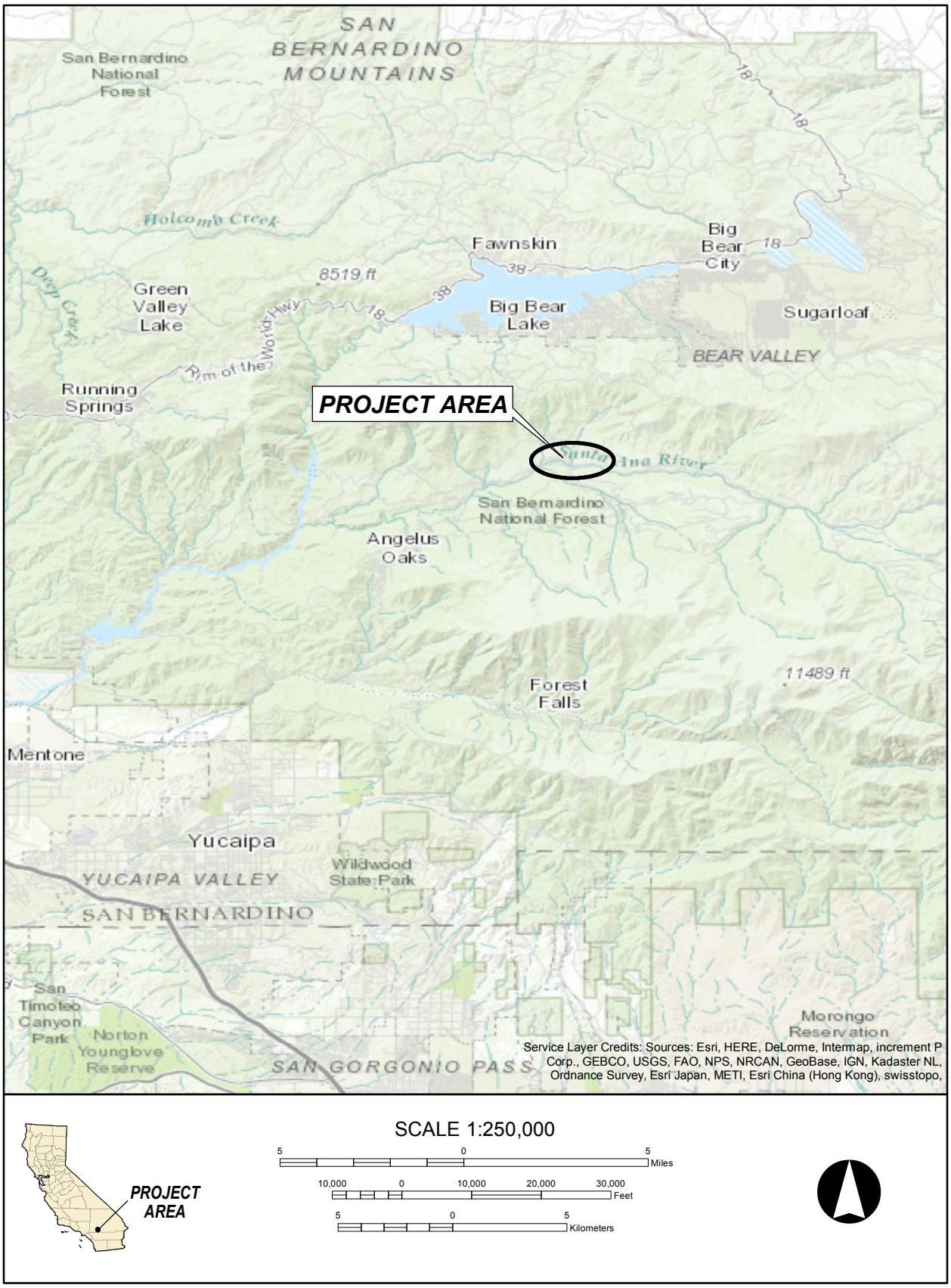

Figure 1 Project vicinity map.

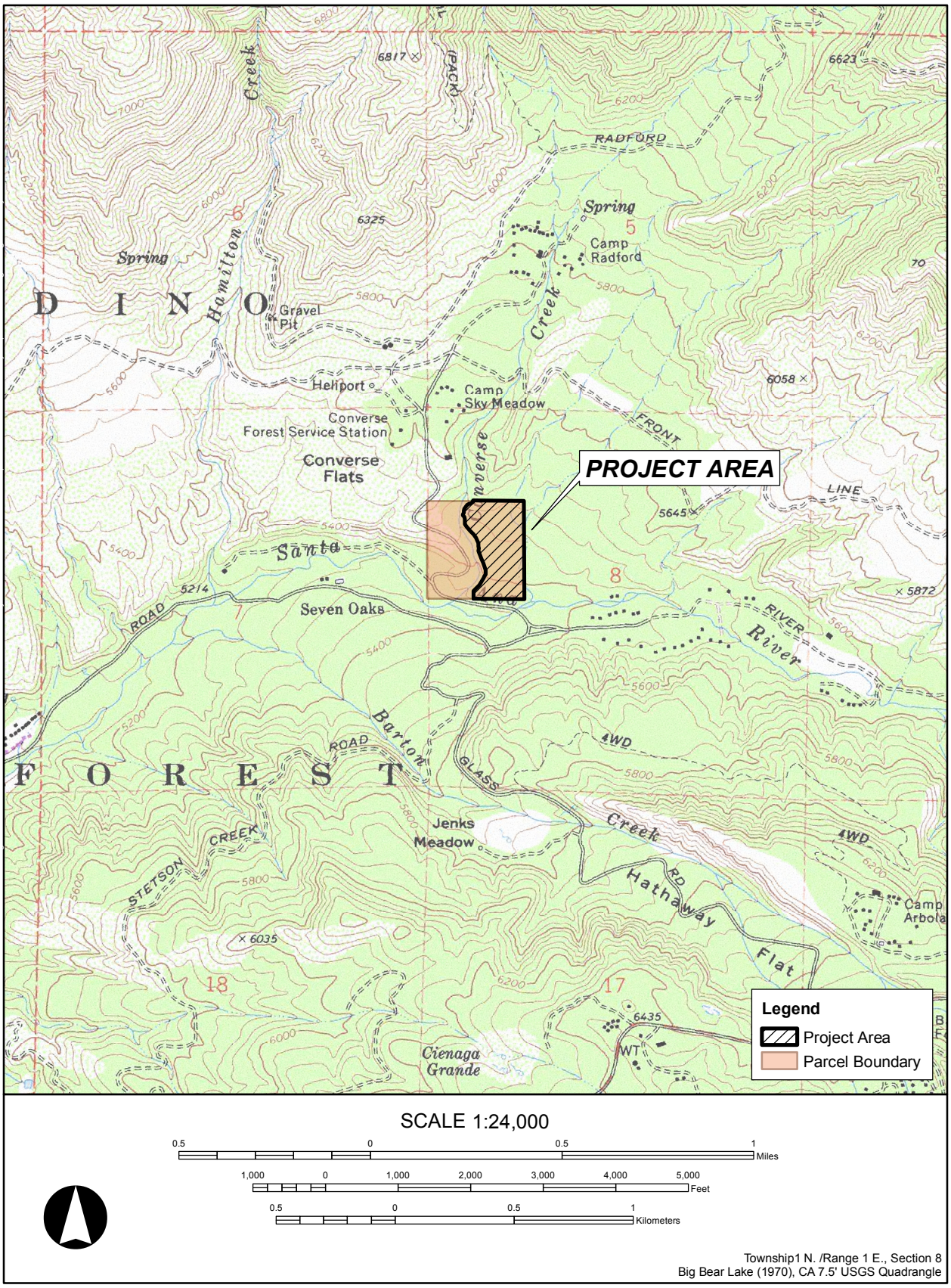

Figure 2 Project location map.

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,

4) Has yielded, or may be likely to yield, information important in prehistory or history (Title 14 CCR, § 15064.5).

The cited statutes and guidelines specify how cultural resources are to be managed in the context of CEQA-approved projects, such as the High Trails Outdoor Science School Project. Briefly, archival and field surveys must be conducted with any identified cultural resources inventoried and evaluated in prescribed ways. Prehistoric and historical archaeological resources, as well as built-environment features, such as standing structures deemed "historically significant" must be considered in project planning and development.

1.3 REPORT ORGANIZATION

This report documents the results of a Phase I cultural resource investigation of the proposed High Trails Outdoor Science School Project. Chapter 1 has introduced the scope of the work and regulatory context. Chapter 2 synthesizes the natural and cultural setting of the Project area and surrounding region. Chapter 3 presents the results of the background research, which included a cultural resources literature and records search conducted at the SCCIC of the California Historical Resources Information System (CHRIS). Chapter 4 details the SLF search with the NAHC, and Native American communications. The cultural resource survey methods employed during this investigation, as well as findings are outlined in Chapter 5. Recommendations are provided in Chapter 6, and bibliographic references are cited in Chapter 7. Results of the SLF search and correspondence with Native American groups are included in Appendix A.

2
SETTING

2.1 INTRODUCTION

This chapter describes the environmental and cultural setting of the Project area to provide a discussion and context for how historical and archaeological resources in the area were created and used. The discussion is based on a review of existing data and literature. This chapter is also useful for evaluating the significance of any cultural resources that may be found within the vicinity of the Project area. The nature and distribution of past activities in the San Bernardino Mountains, along with adjacent valley and desert areas, have been affected by such factors as topography, climate change, water availability, and access to biological resources. Therefore, prior to discussing the cultural setting, aspects of the regional environment are briefly summarized below.

2.2 ENVIRONMENTAL SETTING

2.2.1 Geography and Geology

Situated north and east of the San Bernardino Valley on the North American Plate, the San Bernardino Mountains are the easternmost in the Transverse Range. The steep northern side of the mountains is separated from the Mojave Block to the north by a fault, while the San Andreas fault separates the San Bernardino Mountains from the San Gabriel Mountains to the west and the San Bernardino Valley to the south. North of the City of San Bernardino near Waterman Canyon, the San Andreas fault divides into the Mill Creek-Mission Creek fault and the Banning fault; the former extending east across the mountains north of Mill Creek toward the Morongo Valley, while the latter runs southeast through the San Gorgonio Pass. The Precambrian igneous-metamorphic basement complex, consisting of schists, gneiss, and migmatites, daylights north of the San Andreas fault between Cajon Mountain and Mill Creek. Extensive outcrops of gneiss are also present near San Gorgonio Peak and Sugarloaf Peak. Near Big Bear Lake, these are uncomformably overlain by upper Paleozoic marine quartzite and limestone that are weakly metamorphosed. These in turn are intruded by Triassic volcanics, and Jurassic and Cretaceous plutonic rocks. During the early Cenozoic, there was erosion of the Cretaceous mountain topography. More tectonic activity extended through the Miocene, and basalts extruded in the eastern part of the range. Faulting and associated compression in the late Pliocene rejuvenated the previously eroded surface, and during the middle Pleistocene, the San Bernardino and San Gabriel mountains were uplifted along the block and thrust faults. Some flat areas in the San Bernardino Mountains are overlain by Pleistocene alluvium, and there is Wisconsin-age glacial till on north San Gorgonio Peak above 8,700 ft.

The San Bernardino Mountains is a short transverse mountain range that extends for approximately 60 miles (mi) east-west on the southern edge of the Mojave Desert in southwestern San Bernardino County, north of the City of San Bernardino. The range is separated from the San Gabriel Mountains to the west by Cajon Pass, and from the San Jacinto Mountains to the south and southeast by Banning Pass. The highest peaks in the range include San Gorgonio Mountain (elevation 11,502 ft), the highest peak in southern California, and other peaks of the San Gorgonio Wilderness. The shorter Little San Bernardino Mountains extend southeast from the range along the eastern side of the Coachella Valley.

The geology of the Project area is mapped by Dibblee and Minch (2008) at a scale of 1:62,500 and Morton and Miller (2006) at a scale of 1:100,000. The geological mapping indicates that the Project area is directly underlain by Quaternary alluvium (Qa) and Quaternary older alluvial fan deposits (Qof). The Quaternary older alluvial fan deposits accumulated during the late Pleistocene as a result of erosion of the uplifting crystalline bedrock and subsequent alluvial deposition. The late Pleistocene alluvium is mapped in the northern Project area and consists of a light-grey to reddish-tan fanglomerate that is composed of poorly sorted, crudely bedded, coarse angular gravel of boulder to pebble size in a coarse arkose matrix. Fine-grained sediments are generally absent or are restricted to local deposits of low-energy silt deposits or overbank mud (Dibblee and Minch 2008). The Holocene alluvium underlies the majority of the Project area and is composed of unconsolidated, very poorly sorted, weakly to moderately stratified sandy gravel, with granitic and metamorphic pebble- to cobble-sized clasts and lenses of silt derived from sedimentation along the Santa Ana River and tributary drainages. In general, the alluvium is covered by 1–3 ft of sandy loamy soil, with thinner soil development in areas of steeper slopes (Soil Survey Staff 2003).

2.2.2 Climate and Vegetation

The Sierra Nevada, the Transverse Ranges, and the Peninsular Ranges (Santa Rosa and San Jacinto mountains) in California form a natural barrier between the Mojave and Colorado deserts and the west coast. Ocean breezes moving inland carry moisture, but encountering the mountain ranges, moisture-laden air is forced to rise, cooling and condensing into clouds with increasing altitude. Storm clouds habitually dump their precipitation onto the western slopes of the mountains, and are largely "spent" by the time they have passed eastwards into the deserts. This "rain shadow" effect deprives the deserts of moisture, although some winter storms do manage to deliver widespread drizzle, heavy showers, and even occasional dustings of snow to the higher elevations. During the summer, hot basins generate rising columns of air that subsequently cool and condense into towering cumulonimbus ("thunderhead") formations that often deliver intense localized afternoon showers in desert and mountain areas. Washes and canyons that are normally dry may suddenly become roaring torrents as rainwaters overwhelm dry channels and emerge onto the playas as flash floods (Miller and Hyslop 1983:68–74, 125–127; Schoenherr 1992:316–317).

In the broadest sense, three general belts of vegetation occur within the San Bernardino Mountain areas; in ascending order these include chaparral, desert scrub, and forest. Chamise chaparral typically occurs on the south and west exposures below about 6,000 ft. Small trees and shrubs that are able to exist on minimal moisture occur between 3,000 and 9,000 ft. Desert scrub is found in the watersheds which drain into the Mojave Desert, as well as the Cajon and Lytle creek drainages. Coniferous forests occur at higher altitudes of about 6,000 ft and above. Riparian woodland occurs along all permanently flowing streams in all of the vegetation zones.

Below about 7,000 ft in elevation, some of the more common species that occur within riparian woodland communities include white alder (*Alnus rhombifolia*), Fremont cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*), and California sycamore (*Platanus racemosa*). Above 7,000 ft, willows (*Salix* spp.) are the most common species.

California sage scrub commonly occurs on the lowest slopes near the San Bernardino National Forest boundary. The dominant shrub in this zone is coastal sage (*Artemesia californica*), though brittle bush (*Encelia farinosa*) is common on the drier hillslopes, particularly at the base of City Creek and Santa Ana Canyon. Other shrubs common to this vegetation zone include white sage (*Salvia*

apiana), wild buckwheat (*Eriogonum fasciculatum*), and black sage (*S. mellifera*).

Four major vegetation types compose the chamise chaparral zone. These include pure chamise chaparral, chamise-*Ceanothus* chaparral, chamise-manzanita chaparral, and scrub oak chaparral. The lower limits of this zone occur from almost sea level to 4,500–5,500 ft on the south-facing slopes, and 3,500–5,000 ft on the north-facing slopes. Within this vegetation zone, isolated stands of bigcone Douglas fir forest, live-oak chaparral, and live oak woodland types occur on the north-facing slopes.

Oak woodland is composed primarily of the canyon live oak species (*Quercus chrysolepsis*), and occurs most frequently on north-facing slopes higher in the chaparral zone. Bigcone Douglas fir (*Pseudotsuga macrocarpa*) occasionally appears scattered among the oaks.

Coniferous forests occur between the elevations of 6,000 and 9,000 ft. Dominant trees include Ponderosa pine (*Pinus ponderosa*), Jeffrey pine (*P. jeffreyi*), sugar pine (*P. lambertiana*), white fir (*Abies concolor*), and incense cedar (*Calocedrus decurrens*). *P. ponderosa* and *jeffreyi* are more abundant on south-facing slopes, while *P. lambertiana* and *A. concolor* are co-dominant on north-facing slopes. Additionally, knobcone pine (*Pinus attenuata*) forest is limited to small areas of City, Plunge, and Keller creeks.

2.3 PREHISTORIC SETTING

A prehistoric cultural chronology generally used for the San Bernardino Mountains is based on the Mojave Desert chronology, as adapted by Claude N. Warren (1980, 1984; Warren and Crabtree 1986). Warren's framework for human history in the Mojave Desert divided prehistory into five distinct archaeological periods associated with changes in climate related to the terminal Pleistocene and Holocene epochs. These include Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Shoshonean (or Late Prehistoric) periods. Claims have also been made for archaeological assemblages dating to periods earlier than Lake Mojave, but as Warren and Crabtree (1986) note, all are controversial and, even if valid, have little or no relationship to later cultural developments in the region. Earle et al. (1997) present this chronology in calendar ages. However, for purposes of this report, the prehistoric cultural chronology is presented in years Before Present (B.P.) in order to compare cultural periods with paleoclimatic events.

2.3.1 Lake Mojave Complex (10,000-7000 B.P.)

The Lake Mojave Complex, an expression of the so-called "Western Pluvial Lakes Tradition," is presumed to begin somewhat earlier than 9500 B.P. and lasting to perhaps 7000 B.P. in the southwestern Great Basin (Basgall and Hall 1993; Warren 1980, 1984). This cultural manifestation in the early Holocene refers to a long period of human adaptation to environmental changes brought about by the transition from the late Pleistocene to the early Holocene geologic periods. As climatic conditions became warmer and more arid, Pleistocene megafauna perished abruptly between 13,000 and 10,000 B.P. Human populations responded to these changing environmental conditions by focusing their subsistence efforts on the procurement of a wider variety of faunal and floral resources.

Most prehistoric sites of this period have been found within the southwestern Great Basin and the Mojave Desert. Although intact stratified sites dating to this period are very scarce, the limited data do suggest that the prehistoric populations of this period moved about the region in small, highly

mobile groups, with a wetland-focused subsistence strategy based on hunting and foraging. The vast majority of archaeological sites dating to this period have been found around early Holocene marshes, lakes, and streams which dominated much of the landscape. These early occupants of southern California are believed to have been nomadic large-game hunters whose tool assemblage included percussion-flaked scrapers and knives; large, well-made fluted, leaf-shaped, or stemmed projectile points (e.g., Lake Mojave, Silver Lake); crescentics; heavy core/cobble tools; hammerstones; bifacial cores; and choppers and scraper planes. The absence of milling tools commonly used for seed preparation indicates that an orientation toward hunting continued throughout this phase. Nonetheless, based on ethnographic models developed for hunting-gathering groups throughout the world, populations of this phase undoubtedly exploited plant resources as well. Indeed, most Lake Mojave deposits investigated in the southwestern Great Basin have yielded some amount of milling equipment, usually large slabs with ephemeral wear and handstones, implying regular, albeit limited use of vegetal resources (Basgall and Hall 1993:19).

2.3.2 Pinto Complex (7000–4000 B.P.)

In the desert regions of southern California, the "Pinto Complex" succeeded the "Lake Mojave Complex," beginning at approximately 7000 B.P. and lasting to 4000 or 3500 B.P. Relatively recent paleo-ecological and paleo-hydrological evidence suggests maximum aridity in the desert regions between ca. 7000 and 5000 B.P., with amelioration beginning at approximately 5500 B.P. and continuing through 4000 B.P. (Spaulding 1991, 1995). During this period, it is believed that populations diminished and dispersed due to the decrease in permanent wetland habitats; thus, the Pinto Complex reflects a settlement pattern in which the population relocated from the ancient lakeshores to seasonal water sources. As well, as an adaptive response to these changing climatic conditions, the Pinto Complex is characterized by necessary shifts in prehistoric subsistence practices and adaptations, with greater emphasis placed on the exploitation of plants and small animals than the preceding Lake Mojave Complex, as well as a continued focus on artiodactyls (Warren 1980, 1984).

The distinctive characteristics of the "Pinto Basin Complex" as defined by Campbell and Campbell (1935) are projectile points of the Pinto series, described by Amsden (1935) as weakly shouldered, indented-base projectile points that are coarse in manufacture as well as form. Other diagnostic artifact types of this period include: large and small leaf-shaped bifaces; domed and heavy-keeled scrapers; numerous core/cobble tools; large blocky metates evincing minimal wear and small, thin, extensively used milling slabs; and shaped and unshaped manos. Throughout most of the California desert region, sites containing elements of the Pinto Basin Complex (e.g., those in the Pinto Basin, Tiefort Basin, Salt Springs, and Death Valley) are small and usually limited to surface deposits suggestive of temporary and perhaps seasonal occupation by small groups of people (Warren 1984:413).

2.3.3 Gypsum Complex (4000–1500 B.P.)

Several Gypsum Complex sites have been identified in the general Project vicinity. This period is characterized by a trend toward increasingly effective moisture, which began in the late middle Holocene and culminated in a pronounced pluvial episode between ca. 3700 and 3500 B.P. At that time, a number of basins in the Mojave and Owens river drainages supported perennial lakes (Enzel et al. 1992).

In general, the projectile points of this cultural period are fairly large (dart point size), but also include more refined notched (Elko), concave base (Humboldt), and small stemmed (Gypsum)

forms. In addition to diagnostic projectile points, Gypsum Complex sites include leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416). Manos and milling stones are common; the mortar and pestle also were introduced during this period. Other artifacts include shaft smoothers, incised slate and sandstone tablets and pendants, bone awls, *Olivella* shell beads, and *Haliotis* beads and ornaments. A wide range of perishable items dating to this period was recovered from Newberry Cave, located along the Mojave River near the southern end of the Troy Lake Basin, including atlatl hooks, dart shafts and foreshafts, sandals and S-twist cordage, and tortoise-shell bowls.

Technologically, the artifact assemblage of this period is similar to that of the preceding Pinto Complex; new tools also were added either as innovations or as "borrowed" cultural items. Included are the mortar and pestle, used for processing hard seeds (e.g., mesquite pods [*Prosopis glandulosa*]) and acorns, pine nuts, yucca, and agave, as well as the bow and arrow, as evidenced by the presence of Rose Spring projectile points late in this period. Ritual activities became important, as evidenced by split-twig figurines (likely originating from northern Arizona) and petroglyphs depicting hunting scenes. Finally, increased contact with neighboring groups likely provided the desert occupants important storable foodstuffs during less productive seasons or years, in exchange for valuable lithic materials such as obsidian, chalcedony, and chert. The increased carrying capacity and intensification of resources suggests higher populations in the desert with a greater ability to adapt to arid conditions (Warren 1984:420). Large villages or village complexes also appear in the archaeological record during the Gypsum Complex, reflecting a transition from seasonal migration (i.e., seasonal round) to year-round sedentary occupation of the western Mojave Desert (Sutton 1988).

2.3.4 Saratoga Springs Complex (1500–800 B.P.)

Because paleo-environmental conditions were little changed from the preceding period, cultural trends in the Saratoga Springs Complex essentially saw a continuation of the Gypsum Complex subsistence adaptation throughout much of the California deserts. Unlike the preceding period, however, the Saratoga Springs Complex is marked by strong regional cultural developments, especially in the southern California desert regions, which were heavily influenced by the Hakataya (Patayan) culture of the lower Colorado River area (Warren 1984:421–422). Specifically, turquoise mining and long-distance trade networks appear to have attracted both the Anasazi and Hakataya peoples into the California deserts from the east and southeast, respectively, as evidenced by the introduction of Buff and Brown Ware pottery and Cottonwood and Desert Side-notched projectile points. The initial date for the first Hakataya influence on the southern Mojave Desert remains unknown; however, it does appear that by about 1000 to 1100 B.P., the Mojave Sink was heavily influenced, if not occupied by, lower Colorado River peoples. Trade with the California coastal populations also appears to have been important in the western Mojave Desert region and helped stimulate the development of large complex villages containing deep middens and cemeteries that have been dated from 2200 to 300 B.P., as well as the trade and movement of large quantities of shell beads and steatite items from the coast.

Brown and Buff Ware pottery, first appearing on the lower Colorado River at about 1200 B.P., started to diffuse across the California deserts by about 1100 B.P. (Warren 1984:425). Associated with the diffusion of this pottery were Desert Side-notched and Cottonwood Triangular arrow points dating to about 800 to 850 B.P., suggesting a continued spread of Hakataya influences. Trade along the Mojave River also expanded resulting in middlemen between coastal and Colorado River populations. The Hakataya influence in coastal and inland southern California regions appears to

have diminished during the late Protohistoric period when the extensive trade networks along the Mojave River and in Antelope Valley appear to have broken down and the large village sites were abandoned (Warren 1984:427). Evidence presented by Jones et al. (1999) points to the apparent concordance between the reduction in use of the interior desert and the Medieval Climatic Anomaly. This period, lasting from approximately 1100 to 550 B.P., was typified by increased aridity here as elsewhere in the southwest (Stine 1994; Warren 1984:427). This dry period may have led to the withdrawal of southwestern Native populations, such as the Anasazi, from marginal desert areas. Warren (1984:428) also suggests that the apparent disruption in trade networks may have been caused by the movement of Chemehuevi populations southward across the trade routes during late Protohistoric times.

2.3.5 Late Prehistoric Complex (800–300 B.P.)

The Medieval Warm extended into the Late Prehistoric Complex, ending about 550 B.P. The cultural trends and patterns of land use that characterized the Medieval Warm Interval, including that portion which extends into the earlier part of the Late Prehistoric Complex, were discussed above. At the end of the Medieval Warm, however, and lasting throughout the ensuing Contact/Ethnographic times, a period of cooler temperatures and greater precipitation ushered in the Little Ice Age during which time ecosystem productivity greatly increased along with the availability and predictability of water (Spaulding 2001).

The Late Complex reflects an adaptive modification of the cultural developments that were established during the Saratoga Springs Complex. With the waning of the Medieval Climatic Anomaly, desert settlement is believed to have expanded. Bettinger and Baumhoff (1982) propose an expansion of Numic-speakers around 800 B.P., possibly precipitated by this climatic crisis, while Moratto (1984) has suggested an earlier beginning date for this expansion (1000–900 B.P.), perhaps associated with prolonged drought. However, it is not currently known what effect Numic expansion had on the immediate Project area as Uto-Aztecan-speakers appear to have moved into the area during an earlier period.

Socioeconomic and sociopolitical organization continued to increase in complexity during this period, and by this time the “desert village” model of settlement appears to have become generalized in at least some areas of the western Mojave Desert. This model is based on population-driven sedentism and geographical limitation of gathering and hunting territories as accompanied by ever more intensive exploitation of a larger array of less attractive and less cost-efficient food resources (Earle et al. 1997).

With the return of wetter conditions around 500 B.P., there is some evidence of population increase in southern California and archaeological evidence indicates that the Late Complex populations utilized a greater variety of subsistence resources. This included the exploitation of both small and large mammals, and in some areas, fish. The continuation of milling technologies reflects a persistence of seed collecting, and the frequency of special purpose sites increases proportionally with a growing awareness of resource availability and potential (McIntyre 1990).

2.4 ETHNOGRAPHIC SETTING

Historically, the Project area is located within Serrano territory. Altschul et al. (1989) have provided a useful overview of the ethnographic land-use patterns, social organization, and early ethnohistorical interactions in Serrano territory. Pertinent aspects of this overview, along with

ethnographic information obtained primarily from Strong (1929), Gifford (1918), Kroeber (1925), Bean and Smith (1978), and Bean et al. (1981) are presented below.

The Serrano, or "mountaineers" in Spanish, occupied the territory of the San Bernardino Mountains east to Mount San Gorgonio, the San Gabriel Mountains west to Mount San Antonio, and portions of the desert to the north and the fringe of the San Bernardino Valley to the south (Kroeber 1925:615–616). Numbering no more than perhaps 1,500 people, the Serrano were scattered over a rugged, expansive landscape. The Serrano were Shoshonean peoples, speakers of languages in the Takic sub-family of the larger Uto-Aztecan language family, and their ancestors are presumed to have entered southern California some 1,500 years ago from the Great Basin (Kroeber 1925:578–579). Their most intensive cultural contacts were with the Pass Cahuilla, who occupied the territory to the southeast, and the Gabrielino, who occupied the lands westward to the Pacific coast.

The term "Serrano" is properly applied to just one of four original Serrano subgroups, the others being the Alliklik, Vanyume, and Kitanemuk; all were closely linked linguistically, but were not a tribe with a recognizable political unity (Strong 1929:5–6). The Serrano subgroup, known as the Yuhaaviatam clan, occupied the portions of the San Bernardino Mountains and Valley that encompass the Project area, and thus this term refers here to the smaller cultural unit.

Serrano clans were politically autonomous, although linked by ceremonial ties to other clans and peoples of other tribal groupings (i.e., the Cahuilla and Gabrielino). A moiety structure conditioned Serrano social life, all clans belonging to either the Coyote or Wildcat moiety, and all spring ceremonial and mourning obligations extending to at least one other clan (Strong 1929:12–13). Exchanges of shell money between clans occurred during ceremonies, and contributions of shell money were made to mourning clan leaders by members of other clans on occasions of death. These moieties were exogamous, while clan organization was both patrilineal and exogamous. Although some have suggested that the clans were totemic, Gifford (1918:218) disagrees. Gifford attributes the patrilineal clan and moiety form of organization to links with southwestern tribes (Gifford 1918:218); others would identify Serrano organization as a typically Shoshonean social structure.

Each Serrano clan had a hereditary leader, or *kika*, and an assistant who was a ceremonial leader, or *paha* (Strong 1929:17–18). These individuals were central to the ritual life of the Serrano, providing leadership during yearly ceremonial periods. In the context of discussions concerning mourning ceremonies, Strong (1929:32) indicates, "Immediately after death, much of the property of the deceased was destroyed," and Bean and Smith (1978:572) note that cremation was practiced concurrent with the destruction of most of the deceased's possessions.

Kroeber (1925:617) indicates that villages were generally located where streams emerged from the foothills. Bean et al. (1981:85–86) are considerably more precise in their descriptions of Serrano village and camp locations. Groups of lineages lived in villages at the valley margins in the winter and in smaller encampments at higher elevations in the summer. Proximity to water sources and adequate arrays of resources predictably dictated settlement location choices. Localities rich in oaks, pinyon, yucca, agave, or seasonal migratory fowl, for example, were favored for population convergence at peak "harvest" times. Streamside areas, canyon mouths by alluvial fans, and flats near springs or lakes were frequently chosen as prime locations, with avoidance of wind and floods, and adequate defensive position also of considerable concern. Bean et al. (1981:85) note also that individual homes were quite scattered across the landscape in order to ensure privacy, to the extent

that some "villages" covered up to five square miles. This clearly has important implications for archaeological interpretations of occupation sites.

Serrano residences were circular, domed, willow-and-tule thatch structures. The home of the *kika* also served as a large ceremonial house, and large, semi-subterranean, earth-covered sweathouses were found immediately adjacent to streams in most villages (Bean and Smith 1978). Subsistence during winter months consisted mostly of reliance on stored foods (acorns, pinyon nuts, mesquite beans) and some fresh meats and greens. In the spring, agave, cacti, greens, and a mix of game provided the bulk of the food resources. Many fruits and seeds became available during the summer months, but perhaps the richest season was autumn, when major harvests of acorns, pinyon nuts, mesquite beans, and screwbeans occurred, and when communal rabbit hunts took place in the context of much feasting and ritual activity (Bean et al. 1981:86–87). In addition to occupation sites and food procurement sites, rock cairns ("offerings" places along trails), cupule petroglyph sites, hot springs (sacred areas), sources of lithic materials suitable for the production of stone tools and other artifacts, and trails represent important land uses by the Serrano.

Ethnographic interviews (by Harrington, Gifford, Kroeber, Strong, and more recently, Bean) indicate that several Serrano clan territories are associated with specific zones within the San Bernardino National Forest: the *Pauwiatum* clan with the Santa Ana River near Big Bear Lake, the *Wa'acham* clan with the Santa Ana River Wash and Mill Creek areas, and the *Yucaipaiem* clan with the Yucaipa area, for example (Bean et al. 1981:60–65). Specifically, several village place names, region names, and places of ritual significance are recorded, based primarily on ethnographic notes from John Peabody Harrington's ethnographic interviews in 1918. The Santa Ana River from East Highlands up to its source was known as *Hunapat patshr*, meaning "bear water." *Kaviktaviat* may describe the Bear Creek Canyon area, *An'tsipa't* may refer to narrow passages of the Santa Ana River Canyon near Bear Creek, *Kutaina't* and *Pakaviat* are the names of villages in the Seven Oaks area just upstream from Filaree Flat (this whole area is described as an important acorn harvesting zone) (approximately one-half mile west of the Project area), and *Wivaviat* is equated with archaeological site CA-SBR-2324, where grinding stones, projectile points, and other artifacts were recovered before the site was destroyed years ago (Bean et al. 1981:133–145). This latter site lies just to the northeast of Filaree Flat, approximately 3.5 miles west of the Project area, and is identified as an agave harvesting and processing site (Bean et al. 1981:145). A sketch map produced by Harrington in 1918 depicts *Wivaviat* on the north side of the Santa Ana River, just east of Clark's Grave Road.

Other sites known in the Cajon Pass region include *Amuscopiabit*, *Guapiabit* (also known as Las Flores Ranch), and *Atongiabit*. Both *Amuscopiabit* and *Guapiabit* were described by Nuez in 1819, Whipple in 1856, Zalvidea in 1906, and by numerous travelers during the middle and latter parts of the nineteenth century. All three sites were recorded by Gerald Smith in 1938 and 1939 and were first subjected to subsurface investigations in the late 1930s, 1940s, and 1950s (Basgall and True 1985:3.15–3.16; Smith 1963).

During the early historic era, Serrano peoples and their culture were dramatically affected by the Spanish mission system. San Gabriel Mission was established in 1771 in the Los Angeles area, and baptisms of Serrano individuals began by 1785. Much later, in 1819, a new mission *asistancia* was founded in the San Bernardino Valley at the Indian rancheria of *Guachama*. An irrigation ditch (the Mill Creek Zanja) was built with Serrano labor in 1819–1820, and agriculture became important in the valley.

2.5 HISTORICAL SETTING

2.5.1 Introduction

The historical background of the San Bernardino Mountains and adjacent areas is best presented by adhering to the familiar divisions of local history which have become standardized in the area literature. Beginning with the Spanish (Mission) Period in 1771, the progression moves rapidly through the poorly documented Mexican (Rancho) Period into the American Period, marked by the arrival of Mormon scouts in 1850. The Post-Mormon American Period begins with the recall and departure of the Latter Day Saints in 1857, and continues into modern times. In the following discussion, important regional historical events during these periods are summarized, followed by a more detailed discussion of the historical developments in the immediate Project vicinity.

2.5.2 European Exploration Period: 1771–1810

The earliest significant moment in the recorded history of the region was the arrival of Portola's former Lieutenant Pedro Fages who, as military governor, accompanied an expedition from San Diego in pursuit of deserters from the Presidio. Fages kept a journal which recorded that the party traveled along the west side of the San Jacinto Mountains to what is now Riverside, continued north into the San Bernardino Valley, and then crossed into the Mojave Desert by way of the Cajon Pass (Allen 1974:24). The record of Fages' transit across the San Bernardino Valley in 1772 is the first written account of the area to have survived into modern times.

European settlement and development of the San Bernardino Valley proceeded slowly. The year 1819 is often cited as when the San Bernardino *asistencia*, or mission outpost, was established at *Guachama*; the site of the outpost is near the present location of the restored asistencia on Barton Road. The following year, the local Indians began construction of the *zanja*, or ditch, under the direction of Father Zalvidea from Mission San Gabriel. The *zanja* was completed in 1823 (Knight et al. 1962:2). During the late 1810s and early 1820s, the San Bernardino asistencia was active, functioning as the rancho headquarters.

In 1826, the first American citizen to enter California over land, trapper and mountain man Jedediah Strong Smith, reached the San Bernardino Valley. Guided by Mohaves, as was Father Garcés, Smith left the Colorado River on November 10, 1826, and arrived at the summit of Cajon Pass 15 days later. He and his men were taken in and cared for at a rancho some 5 mi short of San Gabriel, where they gave themselves up to the Mexican authorities. Smith's party left San Gabriel, apparently for his Salt Lake camp, on January 18, 1826 (Morgan 1953:243), with warnings from the Mexican authorities to never return to California. Despite the warnings, Smith returned to California and the San Bernardino Valley the following August 1827, again by way of the Cajon Pass. Detained for several months by the Mexican authorities and determined never to return, Smith was eventually allowed to leave on December 30, 1827.

The unsettled political condition of California during the 1820s was in part due to the turmoil in Mexico in the wake of the revolution. Most disturbing in California were the decrees issued by the Mexican authorities for the secularization of the mission system. The Indians were "liberated" by decree in 1826, followed by orders for the withdrawal of the Franciscans a few years later (Elliot 1883:27). On August 17, 1833, the Mexican Congress passed the Secularization Act which placed all mission property into the hands of civil administrators. The former Mission Indians became the most vulnerable victims in the resulting shuffle and land grab, and their numbers were rapidly

decimated by disease and culture shock. Those Indians surviving on rancherias throughout the valley apparently experienced mainly a change of masters, from padre to California ranchero. This relationship of California "padron" and Indian stock tender worked as well as any system could for the aboriginal population.

In the 1830s and 1840s, the Southern Paiute and Mohaves with their well developed warrior class and knowledge of the trails and desert water holes, began their most aggressive raids on these early outposts. After their first raid in 1832, Paiutes again attacked the San Bernardino asistencia in October 1834, killing Christianized Indians and taking stored grain and altar vessels (Knight et al. 1962:2). They returned again in December 1834, burned buildings, and took Father Esteneza hostage. This last attack, coupled with the decree of secularization, dealt the final blow to the San Bernardino asistencia; it was abandoned shortly thereafter.

2.5.3 The Rancho Period: 1834–1850

Throughout the Rancho Period, the ranchers in the San Bernardino Valley were plagued by large stock losses (primarily horses) resulting from the Indian raids. By 1840, the "Hawk of the Mountains," Walkara, said to be chief of the Ute Indians, was leading well-organized raids on the valley. Walkara commanded a band of 200 men "all of whom were well armed with the best American guns and riding in Spanish saddles on the best mounts available in the western region of North America" (Waitman n.d.:5).

In 1842, in a desperate attempt to protect their stock animals, Juan Bandini, owner of the Jurupa Rancho, and the Lugo family, who had received eight leagues of the Rancho San Bernardino, and had moved into the abandoned asistencia for the purposes of settling and raising stock, decided to contract for protection with a group of New Mexicans under the leadership of Lorenzo Trujillo, a native of Taos and of Pueblo Indian descent. In exchange for good land for settlement by the New Mexican clan, the "Fighting Trujillos" agreed to establish a colony in the valley and thus protect the ranchero's property. They accepted the Lugo family's offer first, and then in 1843 the majority moved to land later known as the "Bandini Donation," consisting of one-half league on the Jurupa Rancho (Vickery 1977:31).

With these two native settlements guarding the valley, the problem of marauders entering by way of Cajon Pass began to diminish. Often with ranchero Don Benito Wilson in command, mounted parties rode up into the mountains in pursuit of Walkara and his men, which reduced the success and frequency of the raids. However, they were unable to defeat Walkara, who continued actively raiding almost up to his death in 1855 (Waitman n.d.:9).

The earliest historically known use of the Santa Ana River Canyon as a transportation route in the San Bernardino Mountains took place in 1845, when Benjamin Wilson led a party of men up the canyon in an expedition against the Indians who had been raiding livestock in the San Bernardino Valley area. The account of Wilson's travels is significant in that it served as the basis for subsequent use and exploration of the route and San Bernardino Mountain region (Arnold et al. 1987).

2.5.4 The American—Mormon Period: 1851–1857

Wilson's trip up the Santa Ana Canyon opened a new pathway to the mountains. In particular, the stories told of encountering and killing numerous bears at what is now Big Bear Lake served to

attract trappers and to develop the fur trade in the San Bernardino Mountains (Drake 1949:13). Trappers undoubtedly utilized the Santa Ana Canyon route as a means of access to the Big Bear area, and their successes most certainly led to a more general circulation of knowledge regarding the region.

A far greater impact to the region was the direct result of the development of the lumber industry. The Mormon Period from 1850 to 1857 initiated "...major farming efforts and the start of timber-cutting in the mountains…From this time on, there was widespread homesteading and farming with the diversion of the mountain streams for irrigation" (Hill 1985:3–4). Although the rugged nature of the Santa Ana Canyon precluded the transportation of lumber, it is likely that the canyon was used as an exploration route into the interior region. Following the discovery of gold in the mountains around Bear Lake in 1860, lumbering would rapidly become a major industry in the Bear Valley area (Johanneck 1975:47).

During the period from 1845 to 1860, the route to Bear Valley by way of Santa Ana Canyon was traveled by hunters, trappers, lumbermen/explorers, and prospectors. From 1855 to 1860, the canyon was relatively heavily utilized by miners, setting the stage for a true gold mining boom. Santa Ana Canyon was established as the gateway to the gold fields following Billy Holcomb's gold discovery in what is now referred to as Holcomb Valley (Hatheway 1987).

The Mormon experience in California has its roots in the Mexican-American War years (1846–1848) when the Mormon Battalion was formed in Iowa and sent to California. Although too late to participate in the battle, the Mormon soldiers did observe the San Bernardino Valley during the fall harvest, and returned to Salt Lake with glowing reports of the areas potential. On March 14, 1851, a group of approximately 500 Mormons left Salt Lake with the intention of establishing a Mormon colony in the area. Camping for the summer in a sycamore grove in Cajon Pass, the Mormon families waited for the results of their leaders' negotiations to buy land to build their town. In September 1851, Mormon leaders Lyman and Rich bought the 35,000-ac Rancho de San Bernardino from Antonio Lugo for $77,500, and development of the town was immediate (Allen 1974:33). A stockade was constructed, crops were planted, and a road was built up into Waterman Canyon for lumber. In 1852, a grist mill was completed, and in the following year the first county election was held, and the post office in San Bernardino was opened (Knight et al. 1962:6). However, after several years of prosperity, in 1857, trouble between the Mormon Church and federal government became so intense that Brigham Young called the faithful to return to Salt Lake City. Roughly two-thirds obeyed, packed their belongings, and in the winter of 1857–1858, left their homes for Salt Lake City.

2.5.5 American Period: 1850–1880s

Through the 1860s, it was initially the freight wagon trains bound for Fort Mojave under military escort that functioned to restore law and order in the San Bernardino Valley. The once little town of San Bernardino became a major trade and outfitting center, catering to the increasing commercial stage and wagon traffic. However, those residing in the valley were to face three major disasters during the decade of the 1860s.

In 1862, a smallpox epidemic, which began in Los Angeles, swept the entire state taking many thousands of lives, and decimating the San Bernardino Valley's Indian population. Deaths were said to be so numerous that bodies of the victims were left in the open for days before undertakers could

bury them (Waitman n.d.:56). Also in 1862, a major flood struck the valley and dramatically changed the topography. What once had been fertile bottomland below Santa Ana Canyon and Mill Creek became a wide, rock-filled wash unfit for agricultural purposes (Altschul et al. 1989:73). Following the flood in the winter of 1861–1862, a drought hit southern California; almost no rain fell until February 1864, by which time thousands of livestock had died from hunger and thirst. One estimate based on census data showed a loss of 71 percent of the total cattle in Los Angeles County (Cleland 1941:180). Considering that cattle-ranching had been the dominant occupation of the California residents of the San Bernardino Valley up to this time, the impact of the drought was catastrophic to say the least.

Desperate for water, ranchers in the San Bernardino Valley drove their cattle and sheep up through the canyons and into the high country of the San Bernardino Mountains for summer pasture. By 1864, Holcomb and Bear Valleys, as well as Coxey Meadow, Little Pine Flat, and Big Pine Flat were full of grazing cattle, horses, and sheep. The first real cattle ranch in the San Bernardino Mountains was H.E. Parrish's Mojave Rancho along the west fork of the Mojave River in Summit Valley. Parrish drove his cattle there during the 1862 drought and patented 160 ac the following year. In late 1863, Parrish sold his Mojave Ranch to Elijah K. Dunlap for $2,500, "together with the Rocking P brand and 400 head of neat cattle" (Robinson 1989). Dunlap built a ranch house and other buildings, and patented 400 additional acres in Summit Valley. The Dunlap Ranch was a major cattle operation during the remainder of the 1860s (Robinson 1989).

Through the 1860s to 1870s, San Bernardino continued to draw settlers and tradesmen. Citrus farming, which would eventually become an extremely important economic factor in the areas history, was introduced by Anson Van Leuven in 1862 (Knight et al. 1962:10). Other dramatic changes to the San Bernardino Valley and surrounding mountain regions occurring during the 1860s through the 1880s were brought about by an intensification of silver and gold mining operations within the mountains and the deserts beyond. Lumbering came to the San Bernardino Mountains in 1883 when Oscar Newberg and Dan Rathbun erected their Summit Shingle Mill at Cedar Springs on the west fork of the Mojave River. In 1884, Charles Bennett and John Shaver bought the saw mill and moved it higher into the Mountains.

By 1890, San Bernardino County had a population of about 35,000, the vast majority of whom lived west of the Cajon Pass. The largest city in the valley was San Bernardino which, by this time, had artesian municipal water, gas and electric lighting, several banks, newspapers, churches, schools, and a developed road system. Riverside was the second largest city, but was soon to become the seat of its own county. Other population centers established by this time were Colton, Redlands, South Riverside, Rincon, Etiwanda, Grapeland, and Ontario (Allen 1974:34).

In 1883, the California Southern Railroad, later known as the Atchison Topeka & Santa Fe Railroad (AT&SF), was built over the Cajon Pass; the railroad reached the Atlantic & Pacific Railroad (later known as the Union Pacific Railroad) junction in Barstow/Dagget in 1885. Throughout the 1890s and the early 1900s the railroads were looked upon as the primary means to accomplish any and all transportation needs. Although easily able to make the ascent up Cajon and San Gorgonio Passes, a railroad was not the solution to the transportation problem faced by the San Bernardino Mountain resorts. In 1887, the San Bernardino, Arrowhead and Waterman Railroad were incorporated to build a line up Waterman Canyon; however, the track was laid only as far as Harlem Springs. The first railroad to reach the top, an electric line between Arrowhead Hot Springs and San Bernardino, was

built in 1906 (Carrico et al. 1982:4-30).

Lumbering, dam building, road improvement, and sporadic mining continued in the San Bernardino Mountains through the late 1800s and early 1900s. The Big Bear District began to acquire permanent residents, and recreation became the theme of mountain land use. A number of camps were established during these years which promoted recreational use of the mountains, such as Skyland Camp, Pioneer Camp, Elder's Grove Camp, Blue Jay Camp, and others (Carrico et al. 1982:4-46). In 1893, President Benjamin Harrison created the San Bernardino Forest Reserve, which became a national forest in 1907 (Knight et al. 1962:23). Gus Knight's Big Bear Hotel opened in 1888, and attracted many tourists into the mountains until it burned down in 1900. It was replaced, however, and eventually evolved into the Pine Knot Lodge. The community of Big Bear Lake grew up around the lodge, supported by the increasing popularity of all mountain resorts (Carrico et al. 1982:4-69).

The advent of the automobile caused a dramatic increase in the mountain recreational industry, which for years had struggled with limited, and somewhat difficult, access into the rugged, steep terrain. The first automobile reached the crest of the San Bernardino Mountains in 1907. In 1910, the first truck to make the top was hauling cement for the Lake Arrowhead Dam (Knight et al. 1962:29). The early automobile routes were expensive toll roads and they were dangerous to drive. In 1915, the "Rim of the World Drive" up Waterman Canyon and east to Big Bear Lake was completed as a public highway open to motorized vehicles.

2.5.6 Communities of Angelus Oaks and Seven Oaks

Angelus Oaks was initially established in 1849 as Camp Angelus after a gold strike in Holcomb Valley near Big Bear. The camp was established to provision prospectors on the way to the gold strike. During the turn of the twentieth century, a stagecoach route was established through Angelus Camp and Seven Oaks to Big Bear. A stagecoach stop was established at Camp Angelus and by the time automobiles began making the trip to Big Bear in 1919, the stagecoach stop had become the Angelus Oaks Lodge and small businesses had been established to provide services to motorists (Revolvy 2017).

Seven Oaks was originally homesteaded in 1875 by hunter and prospector Charles Matthew Lewis. Lewis began welcoming visitors at his modest Lewis Resort and it became a popular stopping point for travelers on their way to Big Bear. In the 1890s, the resort (now known as Seven Oaks) was expanded to include a dining hall, 15 additional cabins, an informal post office, and a telephone line to Redlands. William Glass, then the Bear Valley Mutual Water Company supervisor, purchased the resort in 1902 (Big Bear Grizzly 2013). In 1912, Glass moved his family to Seven Oaks and continued to expand and develop the resort and other properties that he had purchased throughout the San Bernardino Mountains. The popularity of the resort attracted other entrepreneurs to the area, and a small settlement grew around the Seven Oaks Resort. By 1925, the community had received an official post office and William Glass was appointed postmaster. Glass lived at Seven Oaks until his death in 1948; his family retained ownership of the property until the 1960s (Funk 1983). In the 1970s, the postal service decided to combine the two small post offices at Camp Angelus and Seven Oaks. Ultimately the postal service chose the Seven Oaks Post Office to remain open, but renamed it Angelus Oaks and in doing so created the town of Angelus Oaks (Revolvy 2017).

3
CULTURAL RESOURCE LITERATURE AND RECORDS SEARCH

As part of the cultural resource constraints analysis, a cultural resource literature and records search was conducted at the SCCIC, housed at the California State University, Fullerton, on September 19, 2016. The objective of the records search was to determine whether any prehistoric or historic-period cultural resources were recorded previously within, or within a one-mile radius of, the property. The results of this search indicate that no fewer than 21 cultural resource investigations were completed within a one-mile radius of the property between 1963 and 2010 (Table 1). Five of these previous studies encompass portions of the property (see Table 1), including one reconnaissance survey (SB-3471) that encompassed the entire Project area.

Table 1
Previous Cultural Studies within One-Mile of the Project Area

Author(s)	Date	Report #	Title
Lerch, Michael K.	1983	SB-01369	Archaeological Reconnaissance Report: Bald Cove Fuelwood Sale
Hatheway, Roger G	1987	SB-01747*	History and Evaluation: The Santa Ana Canyon Road
Smith, Gerald A.	1963	SB-01915	Archeological Survey of the Mojave River Area and Adjacent Regions
Hogan, Michael and B. Tom Tang	1993	SB-02916	Cultural Resource Assessment Camp Radford Located in the San Bernardino Mountains, San Bernardino National Forest, San Bernardino County, California
Mlazovsky, Marilyn	1994	SB-02950	Santa Ana River Crossings
Semago, Bill	1976	SB-03465	Camp Radford Preliminary Development Plan
Erickson, Lewis J.	1979	SB-03466	Radford #2 Timber Sale
Erickson, Lewis J.	1978	SB-03468	Barton Flats Salvage Sale
Erickson, Lewis J.	1979	SB-03470	Santa Ana Fuelbreak – Alder Creek
Earney, Gary A.	1980	SB-03471*	Contract Timber Sale - Archaeological Reconnaissance
Mlazovsky, Marilyn	1999	SB-03636	Santa Ana Prescribed Burn
Mountain Heritage Association	2003	SB-03883	Archaeological Survey of Recreation tracts in the San Bernardino National Forest
Romani, John	2005	SB-04626	Negative Archaeological Survey Report: Southern California Edison Jenks Lake 12kV and Weesha 2.4 kV Distribution Lines Deteriorate Pole Replacement Project, San Bernardino National Forest, San Bernardino County, CA

Table 1 (continued)

Author(s)	Date	Report #	Title
Mirro, Michael	2005	SB-05145	Cultural Resources Survey of 625 Acres in the Camp Tahquitz Project Area for the Natural Resources Conservation Service
Alexandrowicz, John Stephen	2006	SB-05145	Rehabilitation Guidelines for Cabin #11, Seven Oaks Recreation Residence, San Bernardino National Forest, San Bernardino County, California
Mirro, Michael	2007	SB-06100*	Cultural resources Monitoring of the Glass Road (AO0221) Project in the San Bernardino Mountains for the Natural Resources Conservation Service
Alexandrowicz, John Stephen	2009	SB-06101	A Historical Resources Investigation and Architectural Rehabilitation Guidelines for Cabin 65, Seven Oaks Recreation Residence Tract, San Bernardino National Forest, Pacific Southwest Region, San Bernardino County, California
Eckhardt, William	2003	SB-06381	National Register Evaluation Update Camp Radford Mountain Top Ranger District, San Bernardino National Forest, San Bernardino County, California
Gardner, Jill K., Audry Williams, and Hubert Switalski	2005	SB-06761*	A Heritage Resources Inventory for the Hazard Tree Removal Project in the Mountain Top and Front Country Districts of the San Bernardino national Forest on Behalf of Southern California Edison Company
Williams, Audry, Hubert Switalski, and Jill K. Gardner	2005	SB-06762*	Archaeological Monitoring for the Hazard Tree Removal Project in the Mountain Top and Front Country Districts of the San Bernardino national Forest on Behalf of Southern California Edison Company
Loosekoot, Frank	2010	SB-07064	A Confidential Archaeological Letter for the Tahquitz Fuel Modification Project for the County of San Bernardino, Hazardous Tree Removal Operations, San Bernardino County, California

*Studies that involved portions of the subject property.

As a result of these and other similar studies, 12 cultural resources have been documented within a one-mile radius of the Project area (Table 2). These include four built-environment resources (Camp Radford and structures within the Seven Oaks Recreation Residence Tract District), three prehistoric archaeological sites, and five historical archaeological sites. Of these 12 resources, only one—the Seven Oaks Recreation Tract District (33-021157)—lies within the Project area. No features or structures associated with the historic-period district have been documented within the Project area.

Additional sources consulted during the archaeological literature and records search include the *National Register of Historic Places*, the *Office of Historic Preservation Archaeological Determinations of Eligibility*, and the *Office of Historic Preservation Directory of Properties in the Historic Property Data File*. There are no listed historic properties, historical resources, or historic landmarks recorded within or near the Project area. As part of the background research, a number of historical maps were examined including the 1902 San Gorgonio 1:125,000 USGS Map, the 1954 San Gorgonio Mountain1:62,500 USGS Map, and the1958 and 1966 San Bernardino 1:250,000 USGS Map. None of these historical maps show any buildings, structures, or other historical features within or immediately adjacent to the Project area.

Table 2
Previously Documented Cultural Resources within One-Mile of the Project Area

Primary	Trinomial	Resource Type	Description
36-000224	CA-SBR-224	Site	Prehistoric site containing multiple bedrock milling features, lithics, and ceramics
36-007443	CA-SBR-7443	Site	Prehistoric lithic scatter
36-007444	CA-SBR-7444H	Built Environment	Historical Camp Radford District; recreational camp
36-010447	CA-SBR-10447	Site	Prehistoric bedrock milling site
36-010450	CA-SBR-10450H	Site	Historical can scatter
36-010452	CA-SBR-10452H	Site	Historical refuse scatter
36-010453	CA-SBR-10453H	Site	Historical can scatter
36-010454	CA-SBR-10454H	Site	Historical Barton Ditch/water conveyance line
36-010455	CA-SBR-10455H	Site	Historical can scatter
36-019866	-	Built Environment	Historical Cabin 65, Seven Oaks Recreation Residence
36-020550	-	Built Environment	Historical Cabin 11, Seven Oaks Recreation Residence
33-021157	-	Built Environment	Historical Seven Oaks Recreation Residence Tract District

4
NATIVE AMERICAN COMMUNICATION

As part of the cultural resource constraints analysis, Æ contacted the NAHC on August 29, 2016 for a review of the SLF to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, places of religious or sacred activity, etc.) are present within or adjacent to the Project alignment. The NAHC responded on September 13, 2016 stating that the SLF search was completed with negative results. The NAHC requested that Native American individuals and organizations be contacted to elicit information and/or concerns regarding cultural resource issues related to the proposed Project. A letter describing the Project and asking these individuals and organizations for their input was sent via United States Postal Service (USPS) and electronic mail on September 23, 2016. A second attempt to contact individuals who had not responded to the initial information request was made by phone and email on October 7, 2016. A copy of the letters sent, the list of contacts, and responses received are included in Appendix A.

Individuals/organizations contacted at the request of the NAHC include:

- Patricia Garcia, Director/Tribal Historic Preservation Officer for the Agua Caliente Band of Cahuilla Indians (ACBCI)
- Jeff Grubbe, Chairperson of the ACBCI
- Amanda Vance, Chairperson of the Augustine Band of Cahuilla Mission Indians
- Doug Welmas, Chairperson of the Cabazon Band of Mission Indians
- Luther Salgado, Chairperson of the Cahuilla Band of Indians
- Dennis Patch, Chairman of the Colorado River Indian Tribe
- John Perada, Environmental Director for the Los Coyotes Band of Mission Indians
- Shane Chapparosa, Chairman of the Los Coyotes Band of Mission Indians
- Robert Martin, Chairperson of the Morongo Band of Mission Indians
- John Gomez, Environmental Coordinator for the Ramona Band of Cahuilla Mission Indians
- Joseph Hamilton, Chairperson of the Ramona Band of Cahuilla Mission Indians
- John Valenzuela, Chairperson of the San Fernando Band of Mission Indians
- Lee Claus, Director of Cultural Resources for the San Manuel Band of Mission Indians (SMBMI)
- Steven Estrada, Chairperson of the Santa Rosa Band of Mission Indians
- Goldie Walker, Chairperson of the Serrano Nation of Mission Indians
- Joseph Ontiveros, Cultural Resource Department for the Soboba Band of Luiseño Indians
- Carrie Garcia, Cultural Resource Manager for the Soboba Band of Luiseño Indians
- Mary Resvaloso, Chairperson of the Torres-Martinez Desert Cahuilla Indians
- Michael Mirelez, Cultural Resource Coordinator for the Torres-Martinez Desert Cahuilla Indians

As of August 23, 2017, only three responses have been received. The ACBCI noted that the property is not located within the Tribe's Traditional Use Area and deferred further consultation to other tribes in the area. The Los Coyotes Band of Mission Indians stated that the property is out of their interest area. The SMBMI noted that area is sensitive to the Tribe and that the Tribe wants to be involved if the Project moves forward. At this time, SMBMI would like a cultural survey of the property and Tribal monitoring during construction for inadvertent discoveries and possible human

remains.

As part of Assembly Bill 52 (AB 52) consultation, Ms. Jessica Mauck, Cultural Resource Analyst for the SMBMI, reviewed and commented on the cultural resource report prepared for the Project. In addition, she requested a copy of the records search materials. A copy of the records search materials was sent to Ms. Mauck on October 11, 2017.

Mr. Jim Morrissey, Planner with the Land Use Services Department for the County, scheduled a meeting on October 17, 2017 with Ms. Mauck (SMBMI), Æ, and the High Trails Outdoor Science School to discuss the Tribe's cultural resource concerns regarding the Project.

After the meeting, the SMBMI provided the following revised recommendations for the Project:

1. All ground disturbing activity taking place below 3 feet of the current surface, in addition to any disturbance as a result of the clearing of trees (and other similarly large vegetation), will be monitored by a qualified archaeologist. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and the retained archaeologist shall assess the find. If the archaeologist cannot make an assessment, an archaeologist meeting Secretary of Interior standards will be contacted to assist. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, SMBMI will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit, if requested by SMBMI, when the archaeologist makes his/her assessment, so as to provide Tribal input.

2. If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the retained archaeologist, with assistance from an SOI-qualified archaeologist, shall develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to SMBMI for review and comment.
   a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a SMBMI Tribal Participant(s), if deemed necessary by SMBMI staff.
   b. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

3. If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

A table summarizing communication with Native American groups and/or individuals is located in Appendix A.

5
CULTURAL RESOURCE SURVEY METHODS AND RESULTS

5.1 SURVEY METHODS

A Phase I pedestrian survey of the 21-ac Project area was conducted by Æ archaeologists Dennis McDougall and Ken Moslak on August 11, 2017. The survey was completed by walking parallel transects spaced approximately 10 to 15 m (30 to 50 ft) apart. All areas likely to contain or exhibit archaeologically or historically sensitive cultural resources, such as landforms and natural features (i.e., bedrock outcrops), were inspected carefully to ensure that visible, potentially significant cultural resources were discovered and documented. In particular, bedrock outcrops were carefully examined for the presence of prehistoric cultural feature elements such as mortars, milling slicks, basin metates, and/or rock art (i.e., pictographs or petroglyphs). Additionally, surveyors investigated any contours, soil changes, road cuts, drainages, and other potential cultural site markers. A Daily Work Record was completed which documents survey personnel, hours worked, weather, ground surface visibility, vegetation, soils, exposure/slope, topography, natural depositional environments, and identified cultural resources.

5.2 SURVEY RESULTS

The Project area is located on a toe of an alluvial fan which forms the first major terrace above the Santa Ana River headwaters, with a slope from 5° to 8° and a southern aspect. Soils consist of a gray silty sand with common gravels and cobbles of granitic material. Vegetation included various types of conifers, black oak, live oak, scrub oak, manzanita, California buckwheat, and poison oak (Figure 3).

Figure 3 Overview of Project area (view to the northeast).

No prehistoric or historical archaeological resources were identified within the Project area. Ground visibility ranged between relatively poor to moderate (20 to 50 percent). The ground surface throughout the Project area has been disturbed by forest clearing/tree removal activities as evidenced by slash piles, firewood piles, and chipping debris covering ground in many areas. In addition, tracks from a tracked-vehicle were visible throughout the Project area.

6
MANAGEMENT RECOMMENDATIONS

The intensive-level field survey did not identify any prehistoric or historic-period cultural resources within the Project area. However, the absence of cultural material on the ground surface does not, in and of itself, preclude the possibility of encountering buried archaeological deposits during Project construction. Geological data indicate that the northern Project area consists of late Pleistocene alluvium. These deposits were laid down prior to documented human activities in the area and have no sensitivity for buried resources. Holocene alluvium underlies the remainder of the Project area. It is possible that cultural remains dating to the early or middle Holocene deposits may be buried in Holocene alluvium. However, this portion of the Project area exhibits moderate slopes that are covered by a thin soil layer (1–3 ft). As such, there is a low potential for these areas to contain deeply buried deposits. In addition, the surface terrain throughout the entire Project area has been disturbed by forest clearing/tree removal activities. Consequently, there is little to no potential for the Project area to contain intact buried cultural deposits. No further cultural resource management of the Project area is recommended.

It should be noted that the San Manuel Band of Mission Indians requested a qualified archaeologist monitor all ground disturbing activity taking place below three feet of the current ground surface, including any disturbance as a result of the clearing of trees (and other similarly large vegetation).

In the unlikely event that potentially significant buried archaeological materials are encountered during construction activities, all work must be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological resource. As well, Health and Safety Code § 7050.5, *State CEQA Guidelines* 15064.5(e), and PRC § 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, in accordance with PRC § 5097.98, the San Bernardino County Coroner must be notified of the discovery of potentially human remains. The Coroner must then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she must contact the NAHC by phone within 24 hours, in accordance with PRC § 5097.98. The NAHC shall immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD will then have the opportunity to recommend to the Project proponent means for treating or disposing, with appropriate dignity, the human remains and associated grave goods within 48 hours of notification.

Finally, if the Project area is expanded to include areas not covered by this survey or other recent cultural resource studies, or if the Project becomes federally entailed, additional cultural resource studies may be required.

7
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APPENDIX A

NATIVE AMERICAN COMMUNICATION

LIST OF NATIVE AMERICAN CONTACTS AND RECORD OF RESPONSES

Name	Date & Time of Correspondence	Responses
Patricia Garcia-Plotkin Director Agua Caliente Band of Cahuilla Indians	September 23, 2016 September 28, 2016	Scoping letter sent via email. Received email from Katie Eskew, archaeologist for the Agua Caliente Band of Cahuilla Indians (ACBCI). The project is not located within the Tribe's Traditional Use Area and the ACBCI defers to the other tribes in the area.
Jeff Grubbe Chairperson Agua Caliente Band of Cahuilla Indians	September 23, 2016 September 28, 2016	Scoping letter sent via United States Postal Service. Received email from Katie Eskew, archaeologist for the Agua Caliente Band of Cahuilla Indians (ACBCI). The project is not located within the Tribe's Traditional Use Area and the ACBCI defers to the other tribes in the area.
Amanda Vance Chairperson Augustine Band of Cahuilla Indians	September 23, 2016 October 7, 2016	Scoping letter sent via United States Postal Service. Spoke to David Saldivar, Government Affairs Manager for the Tribe. Mr. Saldivar mentioned that he has not been able to review the scoping letter, but he will review it and send a response next week.
Doug Welmas Chairperson Cabazon Band of Mission Indians	September 23, 2016 October 7, 2016 Letter dated October 7, 2016	Scoping letter sent via United States Postal Service. E-mailed follow-up effort for correspondence to Ms. Judy Stapp, Director of Cultural Affairs for the Cabazon Band of Mission Indians. Received letter from Ms. Stapp, Director of Cultural Affairs for the Cabazon Band of Mission Indians. Ms. Stapp stated that the Project is located outside of Tribe's current reservation boundaries. The Tribe has no specific archival information on the site indicating that the Project area may be a sacred/religious site or other site of Native American traditional cultural value.

Name	Date & Time of Correspondence	Responses
Luther Salgado Chairperson Cahuilla Band of Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Dennis Patch Chairman Colorado River Indian Tribe	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Shane Chapparosa Chairperson Los Coyotes Band of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
John Perada Environmental Director Los Coyotes Band of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via United States Postal Service. Spoke to Mr. Perada and he said that San Bernardino County is out of the Tribe's interest area.
Robert Martin Chairperson Morongo Band of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via United States Postal Service. E-mailed follow-up effort for correspondence to Mr. Raymond Huaute, Cultural Resource Specialist for the Tribe.
John Gomez Environmental Coordinator Ramona Band of Cahuilla Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Joseph Hamilton Chairman Ramona Band of Cahuilla Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
John Valenzuela Chairperson San Fernando Band of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.

Name	Date & Time of Correspondence	Responses
Lee Clauss Director of Cultural Resources San Manuel Band of Mission Indians	September 23, 2016	Scoping letter sent via email.
	September 29, 2016	Received email response from Ms. Clauss noting that she would forward the email on to San Manuel Field Manager, Ann Brierty, who is familiar with the Project area.
	October 4, 2016	Received email from Ms. Brierty requesting additional information about the Project. I emailed her the requested information.
	October 7, 2016	E-mailed follow-up effort for correspondence and called and left a voicemail message. Ms. Brierty returned my call and requested additional information about the Project. I informed her that we were only conducting a cultural constraints analysis for the potential Project, and not a complete Phase I study, but I could send her copies of the records search information. She stated that she would like copies of the records search materials, including maps of the area so she could better identify the Tribe's concerns. Ms. Brierty said that the area is sensitive to the San Manuel Tribe. She also noted that the Tribe wants to be involved if the Project moves forward and, at a minimum, the Tribe would like a cultural survey of the property and Tribal monitoring during construction for inadvertent discoveries and possible human remains.
	October 2, 2017	Ms. Jessica Mauck, Cultural Resource Analyst for the Tribe, reviewed and commented on the cultural resource report prepared for the Project. In addition, she requested a copy of the records search materials.
	October 11, 2017	A copy of the records search materials was sent to Ms. Mauck.
	October 17, 2017	Attended meeting with Ms. Mauck, Jim Morrissey, Planner with the Land Use Services Department for San Bernardino County, and the High Trails Outdoor Science School to discuss the Tribe's cultural resource concerns for the Project.

Name	Date & Time of Correspondence	Responses
San Manuel Band of Mission Indians (continued)	October 27, 2017	After the meeting, the SMBMI provided the following recommendations for the Project: (1) All ground disturbing activity taking place below 3 feet of the current surface, in addition to any disturbance as a result of the clearing of trees (and other similarly large vegetation), will be monitored by a qualified archaeologist. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and the retained archaeologist shall assess the find. If the archaeologist cannot make an assessment, an archaeologist meeting Secretary of Interior standards will be contacted to assist. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, SMBMI will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit, if requested by SMBMI, when the archaeologist makes his/her assessment, so as to provide Tribal input. (2) If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the retained archaeologist, with assistance from an SOI-qualified archaeologist, shall develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to SMBMI for review and comment.(a) All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a SMBMI Tribal Participant(s), if deemed necessary by SMBMI staff. (b) The Lead Agency and/or applicant shall, in good faith, consult with SMBMI on the disposition and treatment of any artifacts or other cultural materials encountered during the project. (3) If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Name	Date & Time of Correspondence	Responses
Steven Estrada Chairperson Santa Rosa Band of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Goldie Walker Chairperson Serrano Nation of Mission Indians	September 23, 2016 October 7, 2016	Scoping letter sent via United States Postal Service. Called and left voicemail message about the Project.
Joseph Ontiveros Cultural Resource Department Soboba Band of Luiseño Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Carrie Garcia Cultural Resources Manager Soboba Band of Luiseño Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Michael Mirelez Cultural Resource Coordinator Torres-Martinez Desert Cahuilla Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.
Mary Resvaloso Chairperson Torres-Martinez Desert Cahuilla Indians	September 23, 2016 October 7, 2016	Scoping letter sent via email. E-mailed follow-up effort for correspondence.

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 657-5390 – Fax
nahc@pacbell.net

Information Below is Required for a Sacred Lands File Search

Date: September 13, 2016

Project: High Trails Outdoor Science School Project (AE #3549)

County: San Bernardino

USGS Quadrangle Name: Big Bear Lake, CA

Township 1N / Range 1E, Section 8

Company/Firm/Agency: Applied EarthWorks, Inc.

Contact Person: Joan George

Street Address: 3550 East Florida Avenue, Suite H

City: Hemet Zip: 92544

Phone: (951) 766-2000

Fax: (951) 766-0020

Email: jgeorge@appliedearthworks.com

Project Description. The Project proposes to build a Science Camp near Big Bear, San Bernardino County, California.

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 13, 2016

Joan George
Applied EarthWorks, Inc.

Sent by E-mail: jgeorge@appliedearthworks.com

RE: Proposed High Trails Outdoor Science School Cultural Resources Study Projects, near the Community of Big Bear; Big Bear Lake USGS Quadrangle, San Bernardino County, California

Dear Ms. George:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contact List
San Bernardino County
9/13/2016

Agua Caliente Band of Cahuilla Indians
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Fax: (951)763-4325
admin@ramonatribe.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed High Trails Outdoor Science School Cultural Resources Study (AE #3549), San Bernardino County.

Native American Heritage Commission
Native American Contact List
San Bernardino County
9/13/2016

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Serrano
Phone: (760) 885 - 0955 — Tataviam
tsen2u@hotmail.com

San Manuel Band of Mission Indians
Lee Clauss, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

Santa Rosa Band of Mission Indians
Steven Estrada, Chairperson
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951)659-2700
Fax: (951)659-2228

Serrano Nation of Mission Indians
Goldie Walker, Chairperson
P.O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909)528-9027

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951)663-5279
Fax: (951)654-4198
jontiveros@soboba-nsn.gov

Soboba Band of Luiseno Indians
Carrie Garcia, Cultural Resources Manager
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92583 — Luiseno
Phone: (951)654-2765
Fax: (951)654-4198
carrieg@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Mary Resvaloso, Chairperson
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760)397-0300
Fax: (760)397-8146
tmchair@torresmartinez.org

Torres-Martinez Desert Cahuilla Indians
Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760)399-0022,Ext.1213
Fax: (760)397-8146
mmirelez@tmdci.org

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Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Shane Chapparosa
Chairperson
Los Coyotes Band of Mission Indians
P.O. Box 189
Warner Springs, CA 92086

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San BernardinoCounty, California

Dear Mr. Chapparosa:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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As part of the cultural resource constraints analysis, Æ requested a search of the *Sacred Lands File* by the Native American Heritage Commission (NAHC) on August 29, 2016. The NAHC responded on September 13, 2016 noting that the *Sacred Lands File* search was completed with negative results. Should your records show that cultural properties exist within or near the Project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall Project, please contact me at (951) 766-2000 or via letter expressing your concerns. You may also e-mail me at jgeorge@appliedearthworks.com. If I do not hear from you within in the next two weeks, I will contact you with a follow-up phone call or email.

Please be aware that your comments and concerns are very important to us. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.

Respectfully yours,

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Lee Clauss
Director of Cultural Resources
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Clauss:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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September 23, 2016

Steven Estrada
Chairperson
Santa Rosa Band of Mission Indians
P. O. Box 391820
Anza, CA 92539

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Estrada:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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September 23, 2016

Carrie Garcia
Cultural Resource Manager
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA 92581

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Garcia:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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September 23, 2016

Patricia Garcia-Plotkin
Director
Agua Caliente Band of Cahuilla Indians THPO
5401 Dinah Shore Drive
Palm Springs, CA 92264

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Garcia-Plotkin:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

John Gomez
Environmental Coordinator
Ramona Band of Mission Indians
P.O. Box 391670
Anza, CA 92539

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Gomez:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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September 23, 2016

Jeff Grubbe
Chairperson
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Grubbe:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Joseph Hamilton
Chairperson
Ramona Band of Mission Indians
P.O. Box 391670
Anza, CA 92539

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Hamilton:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Robert Martin
Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Martin:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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September 23, 2016

Michael Mirelez
Cultural Resource Coordinator
Torres-Martinez Desert Cahuilla Indians
P. O. Box 1160
Thermal, CA 92274

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Mirelez:

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September 23, 2016

Joseph Ontiveros
Cultural Resource Department
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA 92581

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Ontiveros:

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September 23, 2016

Dennis Patch
Chairman
Colorado River Indian Tribe
26600 Mojave Road
Parker, AZ 85344

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Patch:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

John Perada
Environmental Director
Los Coyotes Band of Mission Indians
P.O. Box 189
Warner Springs, CA 92086

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Perada:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

The archaeological literature and records search conducted at the South Central Coastal Information Center housed at the California State University, Fullerton, indicates that 21 cultural resources studies have been conducted within a one-mile radius of the property. Five of these studies involved portions of the property. Twelve cultural resource sites have been recorded within a one-mile radius of the property; however, no resources have been documented within the property.

As part of the cultural resource constraints analysis, Æ requested a search of the *Sacred Lands File* by the Native American Heritage Commission (NAHC) on August 29, 2016. The NAHC responded on September 13, 2016 noting that the *Sacred Lands File* search was completed with negative results. Should your records show that cultural properties exist within or near the Project area shown on the enclosed map, or if you have any concerns regarding Native American issues related to the overall Project, please contact me at (951) 766-2000 or via letter expressing your concerns. You may also e-mail me at jgeorge@appliedearthworks.com. If I do not hear from you within in the next two weeks, I will contact you with a follow-up phone call or email.

Please be aware that your comments and concerns are very important to us. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.

Respectfully yours,

Joan George

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Mary Resvaloso
Chairperson
Torres-Martinez Desert Cahuilla Indians
P. O. Box 1160
Thermal, CA 92274

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Resvaloso:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Respectfully yours,

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Luther Salgado
Chairperson
Cahuilla Band of Indians
52701 U.S. Highway 371
Anza, CA 92539

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Salgado:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Respectfully yours,

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

John Valenzuela
Chairperson
San Fernando Band of Mission Indians
P.O. Box 221838
Newhall, CA 91322

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Valenzuela:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Respectfully yours,

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Amanda Vance
Chairperson
Augustine Band of Cahuilla Mission Indians
P.O. Box 846
Coachella, CA 92236

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Vance:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Respectfully yours,

Joan George

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Goldie Walker
Chairwoman
Serrano Nation of Mission Indians
P.O. Box 343
Patton, CA 92369

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. Walker:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Please be aware that your comments and concerns are very important to us. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.

Respectfully yours,

Joan George

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

September 23, 2016

Doug Welmas
Chairperson
Cabazon Band of Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203

Re: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Mr. Welmas:

On behalf of the High Trails Outdoor Science School (Developer), Applied EarthWorks, Inc. (Æ) is conducting a cultural resource constraints analysis for approximately 40 acres of land within Assessor's Parcel Number 0305-241-014. The Developer proposes to construct a Science Camp on the property which is located just north of the intersection of Patterson Road and Radford Camp Road in the Community of Angelus Oaks, San Bernardino County, California. As indicated on the attached map, the property is located on the Big Bear Lake, CA 7.5' USGS quadrangle maps within T1N/R1E, Section 8, San Bernardino Baseline and Meridian (S.B.B.M.).

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Please be aware that your comments and concerns are very important to us. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.

Respectfully yours,

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.

From: THPO Consulting
To: "Joan George"
Subject: RE: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear
Date: Wednesday, September 28, 2016 11:32:05 AM

Greetings,

A records check of the ACBCI cultural registry revealed that this project is not located within the Tribe's Traditional Use Area (TUA). Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Thank you,

Katie Croft
Archaeologist
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264
760-699-6829 Office
760-413-6253 Cell
760-699-6924 Fax
kcroft@aguacaliente.net

From: Joan George [mailto:jgeorge@appliedearthworks.com]
Sent: Friday, September 23, 2016 8:52 AM
To: THPO Consulting <ACBCI-THPO@aguacaliente.net>
Subject: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear

Good morning,

Attached please find a scoping letter and map for a proposed outdoor science school near Big Bear, San Bernardino County, California.

Thank you,
Joan

Joan George | Applied EarthWorks, Inc.
Associate Archaeologist

3550 E. Florida Ave., Suite H
Hemet, CA. 92544-4937
951.766.2000 x-24 office
www.appliedearthworks.com

October 7, 2016

Joan George
Associate Archaeologist
Applied EarthWorks, Inc.
3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937

Re.: Cultural Resource Constraints Analysis for the High Trails Outdoor Science School Project, San Bernardino County, California

Dear Ms. George,

Thank you for contacting the Cabazon Band of Mission Indians concerning cultural resource information relative to the above referenced project.

The project is located outside of the Tribe's current reservation boundaries. The Tribe has no specific archival information on the site indicating that it may be a sacred/religious site or other site of Native American traditional cultural value within the project area.

We look forward to continued collaboration in the preservation of cultural resources or areas of traditional cultural importance.

Best regards,

Judy Stapp
Director of Cultural Affairs

From: Lee Clauss
To: Joan George
Subject: RE: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear
Date: Thursday, September 29, 2016 9:09:43 AM

Good morning, Ms. George,

Thank you for contacting me and the San Manuel Band of Mission Indians CRM Department about the above-referenced project. I have forwarded your e-mail and the attachment to our Field Manager, Ms. Ann Brierty, who is currently overseeing two other projects in the Big Bear area. You should hear from her in the next 2-3 business days. If you do not, please do not hesitate to contact her at abrierty@sanmanuel-nsn.gov or via phone at 909.864.8933 ext. 3250. You may also follow-up with me, should you not receive communication from our office within the next two weeks.

Respectfully,

Lee Clauss
San Manuel Band of Mission Indians
Cultural Resources Management Department
Cultural Resources Management Director
O: (909) 864-8933 x3248
M: (909) 633-5851
lclauss@sanmanuel-nsn.gov
26569 Community Center Drive
Highland, CA 92346

To ensure a rapid reply concerning all AB 52 Consultation correspondence please use: SMConsultation@sanmanuel-nsn.gov

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From: Joan George [mailto:jgeorge@appliedearthworks.com]
Sent: Friday, September 23, 2016 9:04 AM
To: Lee Clauss
Subject: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear

Good morning,

Attached please find a scoping letter and map for a proposed outdoor science school near Big Bear, San Bernardino County, California.

Thank you,
Joan

Joan George | Applied EarthWorks, Inc.
Associate Archaeologist

3550 E. Florida Ave., Suite H
Hemet, CA. 92544-4937
951.766.2000 x-24 office

www.appliedearthworks.com

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From: Joan George
To: "Ann Brierty"
Subject: RE: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear
Date: Tuesday, October 04, 2016 1:34:00 PM
Attachments: High Trail 20160517.pdf

Hi Ann,

Unfortunately, we are only conducting a cultural constraints analysis for this one, so I don't have a ton of information for you. We are scoped to conduct a records search and Native American scoping to document potential cultural resource constraints on the project, should they move forward with it. I've attached a map of the proposed school. If they move forward with the project, I have no idea when it would start. While all the area surrounding the parcel is forest service land, the parcel itself is not. The County of San Bernardino is the lead agency. Please let me know if you would like me to send you the information I received from the records search.

Thanks,
Joan

Joan George | Applied EarthWorks, Inc.
Associate Archaeologist
951.766.2000 x-24 office

From: Ann Brierty [mailto:Abrierty@SanManuel-NSN.Gov]
Sent: Tuesday, October 04, 2016 1:08 PM
To: Joan George (jgeorge@appliedearthworks.com)
Cc: Ann Brierty
Subject: FW: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear

Afternoon Joan,
I was forwarded the aforementioned proposed project and I'm requesting to be provided the DPR forms, cultural reports and their appendices; as this will assist in our efforts to ascertain our concerns and provide comments.

A few questions:

1) do you have a projected construction start date?
2) the lead agency is San Bernardino National Forest, Front Country?
3) And can you provide a detailed description/map of all the ground disturbing activities (i.e. Utilities, building pads, roads, etc)?

I look forward to discussing this proposed project with you, after I've had the opportunity to review the requested cultural resource reports and the appendices.

Respectfully,

Ann Brierty
San Manuel Band of Mission Indians
Cultural Resources Management Department
Cultural Resources Field Manager
O: (909) 864.8933 x3250

M: (909) 649.1585
F: (909) 425.1409
abrierty@sanmanuel-nsn.gov
26569 Community Center Drive
Highland, CA 92346

From: Lee Clauss
Sent: Thursday, September 29, 2016 9:06 AM
To: Ann Brierty
Subject: FW: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear

Hi Ann,

Please follow-up with Ms. George regarding this project.

Thanks,

Lee

Lee Clauss
San Manuel Band of Mission Indians
Cultural Resources Management Department
Cultural Resources Management Director
O: (909) 864-8933 x3248
M: (909) 633-5851
lclauss@sanmanuel-nsn.gov
26569 Community Center Drive
Highland, CA 92346

To ensure a rapid reply concerning all AB 52 Consultation correspondence please use: SMConsultation@sanmanuel-nsn.gov

---

From: Joan George [mailto:jgeorge@appliedearthworks.com]
Sent: Friday, September 23, 2016 9:04 AM
To: Lee Clauss
Subject: Cultural Resource Constraints Analysis for High Trails Outdoor Science School near Big Bear

Good morning,

Attached please find a scoping letter and map for a proposed outdoor science school near Big Bear, San Bernardino County, California.

Thank you,
Joan

Joan George | Applied EarthWorks, Inc.
Associate Archaeologist

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951.766.2000 x-24 office
www.appliedearthworks.com

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Applied EARTHWORKS Inc.

3550 E. Florida Ave., Suite H
Hemet, CA 92544-4937
O: (951) 766-2000 | F: (951) 766-0020

PHONE LOG

Call to:
Ann Brierty
Cultural Resources Management Department
Cultural Resources Field Manager
San Manuel Band of Mission Indians
(909) 864-8933 x3250

RE: Follow-up to Initial Scoping Letter – Cultural Constraints Analysis – High Trails Outdoor Science School Project, San Bernardino County, California

Date: October 10, 2016, 1:30pm

Left a voicemail message for Ms. Brierty regarding scoping for the Project.

Date: October 10, 2016, 3:50pm

Ms. Brierty returned my call and requested additional information about the Project. I informed her that we were only conducting a cultural constraints analysis for the potential Project, and not a complete Phase I study, but I could send her copies of the records search information. She stated that she would like copies of the records search materials, including maps of the area so she could better identify the Tribe's concerns. Ms. Brierty said that the area is sensitive to the San Manuel Tribe. She also noted that the Tribe wants to be involved if the Project moves forward and, at a minimum, the Tribe would like a cultural survey of the property and Tribal monitoring during construction for inadvertent discoveries and possible human remains.

From: Morrissey , Jim
To: Joan George
Subject: RE: DKC Architects: High Trails Ed School (201600633 Project Schedule / Miscellaneous)
Date: Friday, October 27, 2017 11:29:18 AM
Attachments: image001.png

Good Morning;

Thanks for contacting me. I incorporated Jessica's language into the CEQA document, but did not forward it to you. I extracted her comments from her e-mail and pasted it below.

Thank you for meeting with me today and for the provided documentation. As discussed in the meeting, the project does not intend disturb below 3 ft of soil in all areas but the Dining Hall, where disturbance will go no more than 5 ft. The geotechnical report indicates the potential to go below 3 ft, and SMBMI recommends an archaeologist be on site for that level of disturbance as a result. Furthermore, any ground disturbing activities that include pulling large vegetation by the root will also need a monitor, as that can be very destructive at varying levels of the subsurface. I do not recommend a Tribal monitor be present for this work, nor do I request an archaeological monitor that meets SOI-standards, as this project simply does not justify the need for those additional measures. Below is the suggested language for addition within the project/permit/plan conditions, which speaks to the presence of an archaeological monitor and the process to follow if there are any inadvertent discoveries:

1. All ground disturbing activity taking place below 3 feet of the current surface, in addition to any disturbance as a result of the clearing of trees (and other similarly large vegetation), will be monitored by a qualified archaeologist. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and the retained archaeologist shall assess the find. If the archaeologist cannot make an assessment, an archaeologist meeting Secretary of Interior standards will be contacted to assist. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians (SMBMI) will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit, if requested by SMBMI, when the archaeologist makes his/her assessment, so as to provide Tribal input.

2. If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the retained archaeologist, with assistance from an SOI-qualified archaeologist, shall develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to San Manuel Band of Mission Indians (SMBMI) for review and comment.
a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a SMBMI Tribal Participant(s), if deemed necessary by SMBMI staff.
b. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI on the disposition and

treatment of any artifacts or other cultural materials encountered during the project.

3. If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Please take a moment to complete our 1 Minute Satisfaction urvey
https://www.surveymonkey.com/r/LUS_Email

Jim Morrissey
Planner
Land Use Services Department
Phone: 909-387- 4234
Fax: 909-387-3223
385 N. Arrowhead Avenue, 1st Floor
San Bernardino, CA 92415-0187

Our job is to create a county in which those who reside and invest can prosper and achieve well-being.
www.SBCounty.gov

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From: Joan George [mailto:jgeorge@appliedearthworks.com]
Sent: Friday, October 27, 2017 9:07 AM
To: Morrissey , Jim <Jim.Morrissey@lus.sbcounty.gov>
Subject: RE: DKC Architects: High Trails Ed School (201600633 Project Schedule / Miscellaneous)

Morning Jim,

Did you receive final comments from the Tribe? If so, I can incorporate them into our report and send out a final copy to High Trails and you.

Thanks,
Joan

Joan George | Applied EarthWorks, Inc.
Associate Archaeologist
951.766.2000 x-24 office

From: Darryl Cartozian [mailto:darryl@dkcarch.com]