

IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

**MOUNTAIN VIEW IV WINDFARM PROJECT**

**In the City of Palm Springs  
Riverside County, California**

**For Submittal to:**

Bureau of Land Management  
Palm Springs-South Coast Field Office  
690 West Garnet Avenue  
P.O. Box 581260  
North Palm Springs, CA 92258-1260

and

Coachella Valley Water District  
85-995 Avenue 52  
Coachella, CA 92236

**Prepared for:**

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October 26, 2006  
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CRM TECH Contract No. 1840A

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**Project Area:** Approx. 990 acres and 2,300 linear feet

**USGS Quadrangle:** Desert Hot Springs and Palm Springs, Calif., 7.5' quadrangle  
Sections 22, 27, and 28 of T3S R4E, San Bernardino Base Meridian

**Keywords:** Palm Springs area, Riverside County, Calif.; historical/  
archaeological resources survey; Site CA-RIV-6381H/33-9498  
(Southern Pacific Railroad); no historic property or historical  
resource affected



## MANAGEMENT SUMMARY

Between March and October of 2006, at the request of Dudek and Associates, CRM TECH performed a cultural resources study on the Area of Potential Effects (APE) for the proposed Mountain View IV Windfarm Project on the northern edge of the City of Palm Springs, Riverside County, California. The APE consists of approximately 990 acres of vacant land and 2,300 linear feet of power line right-of-way in Sections 22, 27, and 28 of T3S R4E, San Bernardino Base Meridian. The study is a part of the environmental review process for the proposed project, as required by the Lead Agency, namely the Coachella Valley Water District (CVWD), pursuant to the California Environmental Quality Act (CEQA). A portion of the APE, approximately 600 acres in total, is located on federal land under the jurisdiction of the U.S. Bureau of Land Management (BLM), which mandates compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

The purpose of this study is to provide the CVWD and the BLM with the necessary information and analysis to determine whether the proposed undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by Title 14 CCR §15064.5(a)(1)-(3), that may exist in or near the APE. In order to identify such historic properties, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey.

The results of these research procedures revealed that a previously recorded linear site, CA-RIV-6381H/33-9498, lies across a linear portion of the APE. The site represents the former Southern Pacific (now Union Pacific) Railroad, originally constructed in 1876-1877. Despite the important role it once played in the growth of the Coachella Valley and the State of California in general, the existing rail line lacks historic integrity to relate to its period of significance. As a working component of a modern transportation infrastructure, Site CA-RIV-6381H does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources, and thus does not appear to qualify as a "historic property" or a "historical resource." Furthermore, the proposed undertaking entails only the installation of overhead power transmission lines at this location, and thus has no potential to impact the site.

During the field survey, seven small buildings were noted within the APE, along with several power poles, dirt roads, and earthen levees. The buildings, apparently used as storage sheds, are clearly modern in origin, utilitarian in character, and architecturally nondescript. The other features are of indeterminate age, but none of them exhibits any particular historical characteristics. These minor, ubiquitous features demonstrate no potential for historic significance, and require no further study.

Based on the research results summarized above, the present study concludes that no "historic properties" or "historical resources" are present within the APE. Pursuant to 36 CFR 800.4(d)(1) and Calif. PRC §21084.1, CRM TECH recommends to the CVWD and the BLM a finding that *no known historic properties or historical resources will be affected by the proposed undertaking*. No further cultural resources investigation is recommended for the undertaking unless project plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during any earth-moving operations associated with the undertaking, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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## INTRODUCTION

Between March and October of 2006, at the request of Dudek and Associates, CRM TECH performed a cultural resources study on the Area of Potential Effects (APE) for the proposed Mountain View IV Windfarm Project on the northern edge of the City of Palm Springs, Riverside County, California (Fig. 1). The APE consists of approximately 990 acres of vacant land and 2,300 linear feet of power line right-of-way in Sections 22, 27, and 28 of T3S R4E, San Bernardino Base Meridian (Fig. 2). The study is a part of the environmental review process for the proposed project, as required by the Lead Agency, namely the Coachella Valley Water District (CVWD), pursuant to the California Environmental Quality Act (CEQA). A portion of the APE, approximately 600 acres in total, is located on federal land under the jurisdiction of the U.S. Bureau of Land Management (BLM), which mandates compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

The purpose of this study is to provide the CVWD and the BLM with the necessary information and analysis to determine whether the proposed undertaking would have an effect on any "historic properties," as defined by 36 CFR 800.16(l), or "historical resources," as defined by Title 14 CCR §15064.5(a)(1)-(3), that may exist in or near the APE. In order to identify such historic properties, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey. The following report is a complete account of the methods, results, and final conclusion of the study.

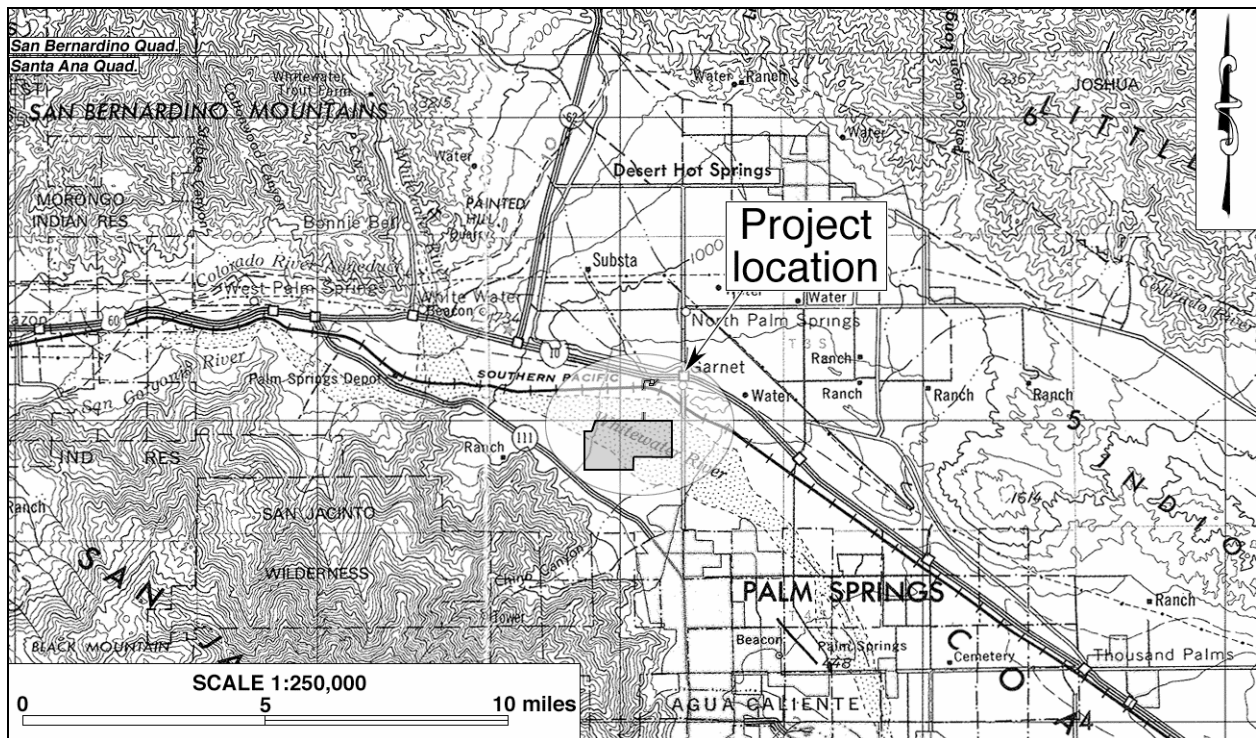


Figure 1. Project vicinity. (Based on USGS San Bernardino and Santa Ana, Calif., 1:250,000 quadrangles [USGS 1969; 1979])

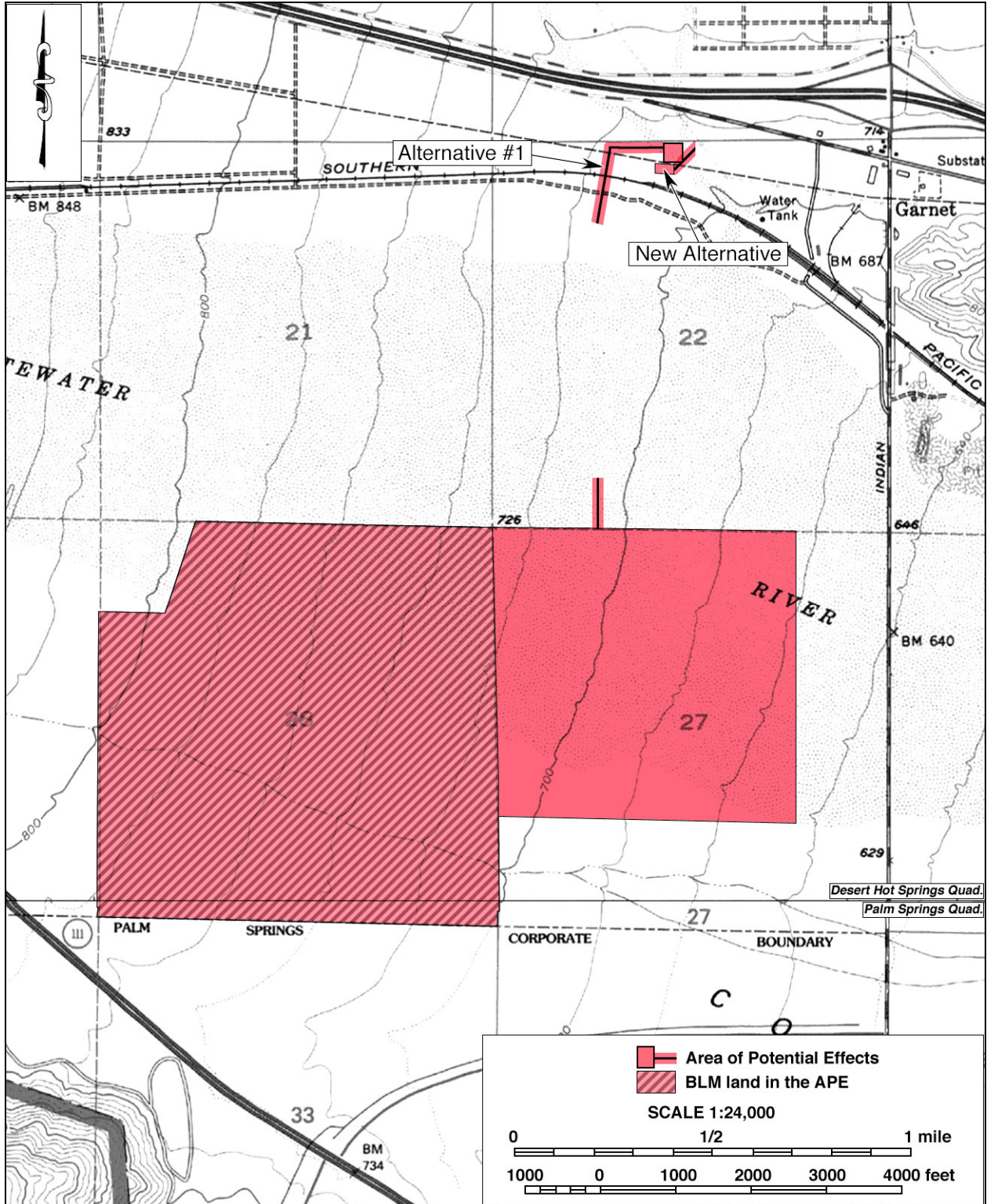


Figure 2. The Area of Potential Effects. (Based on USGS Desert Hot Springs and Palm Springs, Calif., 1:24,000 quadrangles [USGS 1978; 1996])

## AREA OF POTENTIAL EFFECTS

According to 36 CFR 800.16(d), the Area of Potential Effects is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." For the current undertaking, the APE encompasses the large expanse of BLM and non-BLM land on which windfarm structures are to be built, a linear power line easement to the north, and small rectangular parcels located near the tracks of the Union Pacific Railroad. The initial APE—i.e., the windfarm proper—is partially delineated by physical markers, including a series of chain-link fences which run (1) along the southern boundary of the BLM portion of the APE, marking the line between Sections 28 and 33 (Fig. 2); (2) north-south along the line between BLM-owned Section 28 and non-BLM land in Section 27; and (3) east-west along the northern boundary of Sections 27 and 28. The western border of the BLM land in the APE is marked by a large earthen levee. The southern and western boundaries of the non-BLM land were not marked by any physical device, and required on-site measurement by the surveyors according to maps provided by the contractor.

The linear portions of the APE, added later, were created for the construction and maintenance of a power line that will connect the windfarm structures to the Alternative. The power line route begins at a point approximately 1,700 feet east of the corner of Sections 21, 22, 27, and 28 and runs directly north from the non-BLM portion of the APE. This 50-foot-wide segment follows a north-south trending line of power poles for a distance of 680 feet, and then terminates (Fig 2). A second segment of the power line route begins approximately 3,500 feet north of the first segment, but diverges from its north-bound course to a northeasterly heading for 1,080 feet, across the Union Pacific Railroad. The line then heads east for 720 feet toward a small rectangular piece of the APE, measuring 250 X 250 feet, designated as "Alternative #1" on Figure 2. The final portion to be added to the APE is located southeast of Alternative #1 and is marked as "New Alternative" on Figure 2.

## SETTING

### CURRENT NATURAL SETTING

The City of Palm Springs is situated in the Coachella Valley, a northwest-southeast trending desert valley that constitutes the western end of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the APE and its surrounding region are typical of southern California's desert country, marked by extremes in temperature and aridity. Temperatures in the region reach over 120 degrees in summer,

and dip to near freezing in winter. Average annual precipitation is less than five inches, and average annual evaporation rate exceeds three feet.

The APE is located south of Interstate 10, west of Indian Canyon Drive, northeast of State Route (SR) 111, and within the Whitewater wash (Fig. 2). It lies in an area where many existing windfarms are currently in operation, including one on the adjacent property to the north. Elevations in the APE range from 645 to 805 feet above mean sea level.

There are several dirt roads that cross the entire APE, some of which are still maintained. The BLM portion of the APE contains a total of seven small buildings located along the dirt roads in that area. A row of wooden power poles runs along a dirt road, just north of the southern project boundary. The soil in the APE is made up of coarse sand and gravel, with intermittent cobbles and small to medium-size boulders. Sparse vegetation is found throughout the APE and consists of creosote bushes, brittle bushes, foxtails, chollas, cactuses, desert flowers, and small desert grasses and shrubs (Fig. 3).

## **CULTURAL SETTING**

### **Prehistoric Context**

The so-called "prehistoric period" refers to a time prior to the arrival of non-Indians, when Native lifeways and traditions remained intact and viable. In the vicinity of present-day Palm Springs, foreign influences brought profound changes to Indian lifeways commencing around the late 1700s, the beginning of the "historic period."

In the Coachella Valley, the prehistoric period is generally divided into the Late Prehistoric and the Archaic Periods. The transition between these two periods is thought to be around AD 1000, marked by the introduction of pottery to the region, an innovation undoubtedly from peoples of the Colorado River cultures. For this reason, the Archaic Period is sometimes also referred to as the "pre-ceramic" period. Other important cultural changes in prehistoric times were the introduction of the bow-and-arrow, probably around AD 500, and the change from burial practices to cremations, perhaps around 500 BC. Students of





Figure 3. Overview of the current natural setting of the APE. (Photo taken in June 2006; view to the east) historical linguistics propose a migration of Tactic speakers sometime between 1000 BC and AD 500 from the Great Basin region of Nevada, Utah, and eastern California into southern California. It should be noted that the Cahuilla people have their own history, recorded and recited in their Bird Songs, which also include tales of long migrations.

The APE and the City of Palm Springs lie on the edge between two distinct geographic regions, high mountains and low altitude desert/lake shore, which undoubtedly influenced human habitation of the area during prehistoric and historic times. The APE is situated near the foot of the San Jacinto Mountains and within the northern Coachella Valley, which extends up to San Gorgonio Pass and the San Bernardino Mountains, but more than 10 miles northwest of the shoreline of Holocene Lake Cahuilla.

During prehistoric times, when Holocene Lake Cahuilla inundated much of Coachella Valley, humans would have occupied the foothills of the mountains and exploited aquatic resources offered by the freshwater lake. As the lake receded, people probably moved down to the valley floor, subsisting of desert fauna, and relied on groundwater or the Whitewater River for water sources. Based on the archaeological and ethnohistorical record for the Palm Springs area, the majority of the Native American sites were located to the west, closer to the San Jacinto Mountains. The sites consist of smaller types such as ceramic scatters, bedrock milling features, Native American trails, rock cairns, and larger types nearer to the shore of Holocene Lake Cahuilla including the remains of ancient

village areas, cremations, lithic and ceramic scatters, hearths, trails, and other habitation debris.

## **Ethnohistoric Context**

The Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla people, in the mid-19th century. The Cahuilla, a Takic-speaking people of hunters and gatherers, are generally divided by anthropologists into three groups, according to their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and the Desert Cahuilla of the eastern Coachella Valley. The basic written sources on Cahuilla culture and history include Kroeber (1925), Strong (1929), and Bean (1978). The following ethnohistoric discussion is based primarily on these sources.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage or clan belonged to one of two main divisions of the people, known as moieties. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own, for purposes of hunting game, gathering food, or utilizing other necessary resources. They interacted with other clans through trade, intermarriage, and ceremonies.

Population data prior to European contact are almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons. During the 19th century, the Cahuilla population was decimated as a result of European diseases, most notably smallpox, for which the Native peoples had no immunity. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including Torres Martinez, Augustine, Agua Caliente, Cabazon, and Morongo.

Ethnohistoric sources on Native habitation of the northern Coachella Valley and San Gorgonio Pass indicate that a number of large villages existed in the area. Strong (1929) recorded 15 different clans of the Pass Cahuilla distributed among the various villages. The largest villages were located in present-day Palm Springs and Indian Wells, and others were similarly positioned close to canyons that featured freshwater springs, rivers, or creeks (i.e., potable water). These relatively sheltered locales also protected villagers from the intense winds of the valley and flash floods of the Whitewater River.

The nearest Native American group to the project location is the Agua Caliente Band of Cahuilla Indians. The Agua Caliente Indian Reservation was established in 1876 for the *Kauisiktum* ("from the rock") lineage of the Pass Cahuilla, and was named after the famed Agua Caliente hot springs near present-day downtown Palm Springs, where the main settlement of the lineage was located (Strong 1929:91). Closer to the project location, Chino

Canyon served as the summer home of the lineage during the prehistoric and early historic periods (Bean et al. 1991:60-61). Several other canyons in the vicinity, such as Snow Creek Canyon and Blaisdell Canyon, were reportedly occupied by other lineages of the Pass Cahuilla (Strong 1929:89, 91).

## **Historic Context**

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco led a series of expeditions in search of a route to Yuma and became the first noted European explorers to travel through the Coachella Valley. Due to its harsh environment, few non-Indians ventured into the desert valley during the Mexican and early American periods, except those who traveled across it along the established trails. The most important among these trails was the Cocomaricopa Trail, an ancient Indian trading route that was "discovered" in 1862 by William David Bradshaw and became known after that as the Bradshaw Trail. In much of the Coachella Valley, this historic wagon road traversed a similar course to that of present-day SR 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River. The completion of the Southern Pacific Railroad in 1876-1877 brought an end to its heyday.

Non-Indian settlement in the Coachella Valley began in the 1870s, with the establishment of railroad stations along the Southern Pacific Railroad. Settlement increased in the 1880s, after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws. Farming became the dominant economic activity in the valley, thanks to the development of underground water sources, often in the form of artesian wells. But it was not until the completion of the Coachella Canal in 1948-1949 that farmers in the arid region obtained an adequate and reliable water supply. The main agricultural staple in the Coachella Valley, the date palm, was first introduced around the turn of the century. By the late 1910s, the date palm industry had firmly established itself, giving the region its celebrated image of "the Arabia of America." Starting in the 1920s, a new industry, featuring equestrian camps, resort hotels, and country clubs, gradually spread throughout the Coachella Valley and transformed it into southern California's leading winter retreat.

The City of Palm Springs owes its origin to the early development efforts led by John Guthrie McCallum, who began purchasing land in the area in 1872. The townsite was surveyed and subdivided in 1884, under the name of "Palm City." After a resurvey in 1887, the new town acquired its present name. The Palm Springs subdivision was an instant success despite its location in the heart of the southern California desert, thanks to an eight-mile irrigation ditch that McCallum built from the Whitewater River to the townsite. By 1892, Welwood Murray had leased the famed Agua Caliente hot springs from the local Native Americans to establish a health resort, forecasting the future of development in the budding community. In the 1920s-1930s, Palm Springs was "discovered" by the rich and famous of Hollywood, and soon became a favored desert spa, the forerunner and nucleus of the Coachella Valley's resort industry.

The APE lies approximately three miles to the northwest of downtown Palm Springs, near the course of the historic Cocomaricopa-Bradshaw Trail. The surrounding area probably caught the attention of non-native settlers much later than the desert oasis at the Agua Caliente hot springs, but the earliest settlement activities in the vicinity had occurred at least by 1894. At that time, E. S. Blasdell filed water claims to irrigate farmland located in the canyon now bearing a misspelled version of his name, Blaisdell Canyon (Gunther 1984:57). Around the same time, an apparent homestead identified as "Clark's house" was noted just below Windy Point, approximately two miles west of the APE (GLO 1897).

About one mile south of the APE, Chino Canyon was named after Pedro Chino, an influential Cahuilla shaman or medicine man, who apparently claimed some of the land in or near the mouth of the canyon. Around 1880, he reportedly sold ten acres of land to two speculators, W. E. Van Slyke and M. Byrne, who subsequently formed the Palm City Water Company to subdivide and develop what would later become the Palm Springs colony (Bogert 2003:56). Despite that early transaction, the Palm City Water Company and its successor, John G. McCallum's Palm Valley Land and Water Company, focused their development activities in the present-day downtown area. Until the post-WWII boom arrived in the Coachella Valley, the project vicinity served as little more than a corridor for the main highway and the main water supply line leading to the town of Palm Springs.

In light of its location on the periphery of the City of Palm Springs, the area around the APE appears lower in sensitivity for historic-period buildings but higher in sensitivity for archaeological remains from the late 19th and early 20th centuries. The Cocomaricopa-Bradshaw Trail and John G. McCallum's 1887 ditch, for example, are both known to have been located in close proximity to the APE, and both of them have long been abandoned. Other historic-period archaeological features in the project vicinity may include the remains of early homesteads, refuse deposits, and additional irrigation features.

## **RESEARCH DESIGN**

An archaeological investigation must be guided by a thoughtful research design in order to contribute new insights to current knowledge and theory regarding the prehistory and/or history of a particular region. Currently, no research design has been established for the County of Riverside. Thus, guidelines used for implementing cultural resources studies are determined in a piecemeal fashion. It is hoped that sometime in the near future, a comprehensive research design will be developed for this area of southern California. In the meantime, the research design presented in this report is intended to meet the requirements set forth by CEQA guidelines and the Bureau of Land Management in regards to historical/archaeological investigations.

The primary goal of the current study is to identify any prehistoric or historic-period resources that may be present within the APE. This identification process includes a historical/archaeological resources records search, historical background research, Native



American contacts, and an intensive-level field inspection of the APE. Based on the background research carried out for this study, prehistoric sites that could possibly occur in the APE include long-term habitation areas, cremations, trails, ceramic and lithic scatters, and rock features. Historic-period sites could include refuse deposits, irrigation systems, and a segment of the Southern Pacific Railroad.

Sites of these types could yield very important information regarding the prehistory and history of the City of Palm Springs. At least four general research topics could be addressed for sites found in the APE: (1) chronology; (2) subsistence; (3) settlement patterns; and (4) trade or external contacts.

## **CHRONOLOGY**

Establishing the age and duration of sites that could possibly be identified in the APE is one of the main objectives of this study.

- *Test Implications* Can relative dating techniques be used to date the sites?
- *Data Requirements* Diagnostic artifacts such as projectile points, shell beads, cans, and bottles with maker's marks.

## **SUBSISTENCE**

Another topic to be explored is the daily diet and range of natural resources that were hunted, collected, and consumed.

- *Test Implications* Can the range of artifact and ecofact types indicate the types of subsistence resources were consumed?
- *Data Requirements* Plant and faunal remains, groundstone implements, bedrock milling features, remains of household and consumer goods.

## **SETTLEMENT PATTERNS**

Both long- and short-term habitation sites occur in the vicinity of the APE. These could include Native American villages or temporary campsites, and historic-period homesteads or railroad worker's camps.

*Test Implications* Can the types of artifacts found on the surface of the site or the presence of archaeological features indicate whether it was a long-term or temporary habitation area?

*Data Requirements* House foundations, hearths, milling features along with groundstone implements, ceremonial goods, effigies, ornaments, farming implements, and household items.

## **TRADE OR EXTERNAL CONTACT**

Uncovering evidence of trade or external contact is important since it would be possible to establish links between site inhabitants and other cultural groups.

- *Test Implications* Could there be items at the site that would not have originated in the vicinity?
- *Data Requirements* Shell beads, stone material, and imported consumer goods.

## **RESEARCH METHODS**

### **RECORDS SEARCH**

Between April 2005 and September 2006, CRM TECH archaeologist Nina Gallardo (see Appendix 1 for qualifications) conducted the historical/archaeological resources records search on several occasions as the APE was expanded to include additional areas. The records search was completed at the Eastern Information Center (EIC), located at the University of California, Riverside, which is the State of California's official cultural resource records repository for the County of Riverside.

During the records search, Gallardo examined maps and records on file at the EIC for previously identified cultural resources within or near the APE, and existing cultural resources reports pertaining to the project vicinity. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resource Information System.

### **HISTORICAL BACKGROUND RESEARCH**

Bai "Tom" Tang, CRM TECH historian (see App. 1 for qualifications), conducted the historical background research on the basis of published literature in local history and historic maps of the project vicinity. Among maps consulted for this study were the U.S. General Land Office's (GLO) land survey plat maps dated 1856-1897 and the U.S. Geological Survey's (USGS) topographic maps dated 1901-1957. These maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley.

### **NATIVE AMERICAN PARTICIPATION**

As part of the research procedures, CRM TECH Native American liaison Laura H. Shaker (see App. 1 for qualifications) contacted the State of California's Native American Heritage Commission in Sacramento on June 27, 2006, to request a records search in the commission's sacred lands file. Following the commission's recommendations, CRM TECH further contacted a total of 25 Native American representatives in the region, both by mail

and by telephone, to solicit local Native American input regarding any possible cultural resources concerns over the proposed undertaking. The correspondences between CRM TECH and the Native American representatives are attached to this report in Appendix 2.

## **FIELD SURVEY**

Based on previous research in the area, anticipated cultural resources in the APE included buildings, structures, archaeological sites, and isolates (i.e., sites with fewer than three artifacts). Evidence of prehistoric human habitation of the project area may include habitation debris such as ceramic sherds, lithic debitage, groundstone fragments, and faunal remains. Historic-period archaeological remains may include structural foundations, irrigation features, and refuse scatters.

In June and August 2006, CRM TECH field director Daniel Ballester (see App. 1 for qualifications) and project archaeologists John Eddy, Thomas Melzer, Lisa Hunt, Robert Porter, Arthur Diaz de Leon, Thomas Dorsey, Steve Cote, Justin Byrans, Maralene Cortez, Kara Barrentine and Dionisios Glentis conducted the intensive-level, on-foot field survey of the APE. During the field survey, the field team walked parallel east-west transects at 15 meter (approx. 50 feet) intervals across the main windfarm site in Sections 27 and 28. After the northern portion of the APE was added to the scope of the study, Daniel Ballester surveyed these two additional areas, situated in Section 22, along north-south transects, also at 15-meter intervals.

The segment of the power line route that is part of the study area was surveyed by walking parallel transects along each side of the centerline. In this way, the ground surface in the entire APE was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic periods (i.e., 50 years or older). Ground visibility was excellent (90%) due to a general lack of vegetation.

## **RESULTS AND FINDINGS**

### **RECORDS SEARCH**

According to records on file at the Eastern Information Center, the APE was partially covered by three earlier cultural resources surveys (Figs. 4, 5), but had not been surveyed systematically as a whole prior to this study. One historic-period linear site, CA-RIV-6381H (33-9498), was previously recorded as lying across a linear portion of the APE (see App. 3 for site location). The site represents the former Southern Pacific (now Union Pacific) Railroad, which was completed through the Coachella Valley in 1876-1877, as mentioned above. In 2005, another segment of the railroad in the Coachella Valley was formally evaluated for historic significance, and was determined not to constitute a significant site due to the lack of historic integrity (Taniguchi and Galvin 2005:5).

No other historical/archaeological sites were found within the APE. Outside the APE boundaries but within a one-mile radius, EIC records show at least 18 previous cultural resources studies on various tracts of land and linear features (Figs. 4, 5; Table 1). As a result of these studies, nine historical/archaeological sites have been recorded within the scope of the records search, including four prehistoric sites and five historic-period sites (Table 2; App. 3).

Three of the historic-period sites were refuse deposits consisting of cans and other trash items, while the other two were linear features, including John G. McCallum's 1880s irrigation ditch and a small segment of early 20th century pipeline. The four prehistoric sites consisted of ceramic scatters, a hearth feature under a rock shelter, and a rock ring with a few artifacts. None of these previously recorded sites was located in the immediate vicinity of the APE, and thus none of them requires further consideration during this study. In view of the previous archaeological discoveries near the APE, however, a systematic re-survey of the entire APE was deemed necessary for the current study

## **HISTORICAL BACKGROUND RESEARCH**

Despite its location near a series of major transportation arteries, the APE showed little sign of settlement or land development activity during the historic period (Figs. 6-9). In the mid-1850s, when the U.S. government conducted the first systematic land survey in the Coachella Valley, two roads were the only evidence of human activities in the immediate vicinity of the APE (Fig. 6). One of these, traversing the southwestern corner of the APE, closely resembled the course of today's SR 111, and was undoubtedly the main alignment of the ancient Cocomicopa Trail.

In 1876-1877, as mentioned above, the Southern Pacific Railroad's Coachella Valley line was completed in the project vicinity, crossing a linear portion of the APE (Fig. 7). By the turn of the century, the original Palm Springs station on the Southern Pacific had been established approximately a half-mile east of the northernmost portion of the APE (Fig. 7). By the early 1920s, the nearby Whitewater station on the Cocomicopa-Bradshaw Trail and later Highway 111 had become the main railroad portal to the budding resort town of Palm Springs. In 1923, the original Southern Pacific station was renamed the Garnet station in 1923 (Gunther 1984:194). In the 1940s-1950s, a number of buildings were located around the Garnet station, but none of them within or adjacent to the APE (Figs. 8, 9).

During the early and mid-20th century, the town of Palm Springs gradually expanded to in the area south of the APE, as evidenced by the appearance of several residential subdivisions along Highway 111 and Indian Avenue (now Indian Canyon Drive; Figs. 8, 9). By the 1950s, what appears to have been a small subdivision had also been laid out just to the north of the Garnet station, although no construction activities had occurred on that tract (Fig. 9). In contrast, no development occurred within or adjacent to the APE itself, which lay largely within the Whitewater River wash (Figs. 8, 9). Based on the historic maps

and other sources consulted for this study, it was clear that the APE remained vacant and undeveloped throughout the historic period.

## **NATIVE AMERICAN PARTICIPATION**

In response to CRM TECH's inquiry, the Native American Heritage Commission reported that the sacred lands record search identified no Native American cultural resources in the immediate vicinity of the APE (App. 2). However, noting that "the absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area," the commission suggested that other Native American representatives be contacted, and provided a list of potential contacts in the region (App. 2).

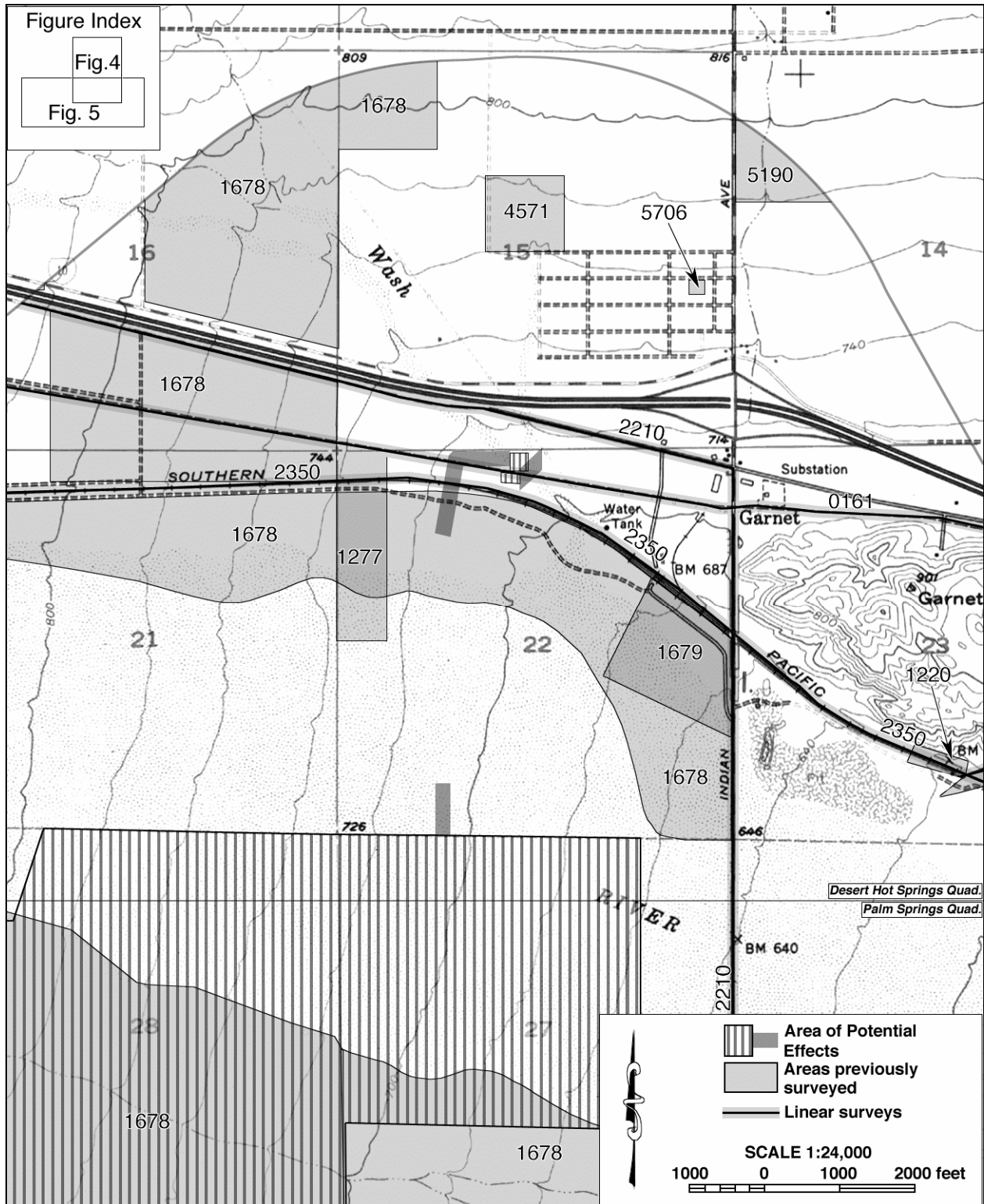


Figure 4. Previous cultural resources studies vicinity the northern portion of the APE, listed by EIC file number. Locations of historical/archaeological sites are not shown as a protective measure.



<b>Report Number</b>	<b>Report Title</b>	<b>Author(s)</b>	<b>Year</b>
161	Paleontological, Archaeological, Historical and Cultural Resources: West Coast-Midwest Pipeline Project, Long Beach to Colorado River.	Greenwood and Associates	1975
497	An Archaeological Survey of 79 Acres near Windy Point, Riverside County, California.	Swenson	1978
652	Cultural Resources Reconnaissance (Stage II) of Flood Control Alternative Proposed for the Whitewater River Basin.	Lando	1979
1277	Initial Archaeological Field Investigations for the San Gorgonio Pass Wind Program, California.	Ritter	1981
1526	An Archaeological Assessment of a 136-acre Portion of the Chino Canyon Alluvial Fan, Palm Springs, California.	Cornett and Associates	1982
1678	Report of an Intensive Archaeological Survey of Various Private and Private Land Parcels for the San Gorgonio Pass Wind Program.	White	1983
1679	Archaeological Assessment of the City of Palm Springs Railroad Station Project.	Dillon	1994
2058	An Assessment of Two Parcels of Land on the Chino Canyon Alluvial Fan, Palm Spring, California.	Cornett and Associates	1983
2210	Preliminary Cultural Resources Survey Report for the UN Telecom Fiber-Optic Cable Project from San Timoteo Canyon, California, to Socorro, Texas.	Underwood	1986
2350	MCI Rialto to El Paso Fiber-Optics Project Intensive Resource Survey, San Bernardino and Riverside Counties, California.	Apple-McCorkle and Wooley	1988
2970	Cultural Resource Inventory of 313 Acres to Be Exchanged for the Proposed Construction of a Youth Trade School.	Broeker and Duffield	1990
3063	Letter Report: CA-19136 Right-of-Way or Windustries/U.S. Winds Farms Wind Park Site.	Duffield and Broeker	1990
3803	A Cultural Resources Assessment of the Desert Highlands Tract, City of Palm Springs, Riverside County, California.	Brock	1994
4571	Cultural Resources Technical Report: Indigo Energy Facility.	Bass	2001
4600	Cultural Resource Assessment for the Mountain Gate Project, City of Palm Springs, Riverside County, California.	Brock	2002
4666	Results of Cultural Resources Survey for the Mountain Gate II, 49-acre Parcel, Palm Springs, APN 669-320-011 and -013	Shaefer	2004
5190	Phase I Archaeological Survey Report for a Property Located on the Southeast Corner of Indian Avenue and 18th Avenue, APN 66-340-004, North Palm Springs, Riverside County, CA.	Mason	2005
5706	New Tower Submission Packet for Project Painted Hills/CA-7282B.	Billat	2005

<b>Site Number</b>	<b>USGS Quadrangle(s)</b>	<b>Description</b>	<b>NRHP Eligibility</b>	<b>Date Recorded</b>
CA-RIV-2532	Palm Springs	Ceramic scatter	No	Aug-82
CA-RIV-2533	Palm Springs	Ceramic scatter	No	Aug-82
CA-RIV-2534	Palm Springs	Single cobble alignment	No	Sep-82
CA-RIV-3441H	Desert Hot Springs	Foundation, reservoir, trash	No	Jul-88
CA-RIV-4873H	Desert Hot Springs & Palm Springs	McCallum's Ditch	Unknown	Jul-92
CA-RIV-6381H	Desert Hot Springs	Southern Pacific Railroad	No	Nov-99
CA-RIV-7199H	Palm Springs	Trash dump	No	Aug-03



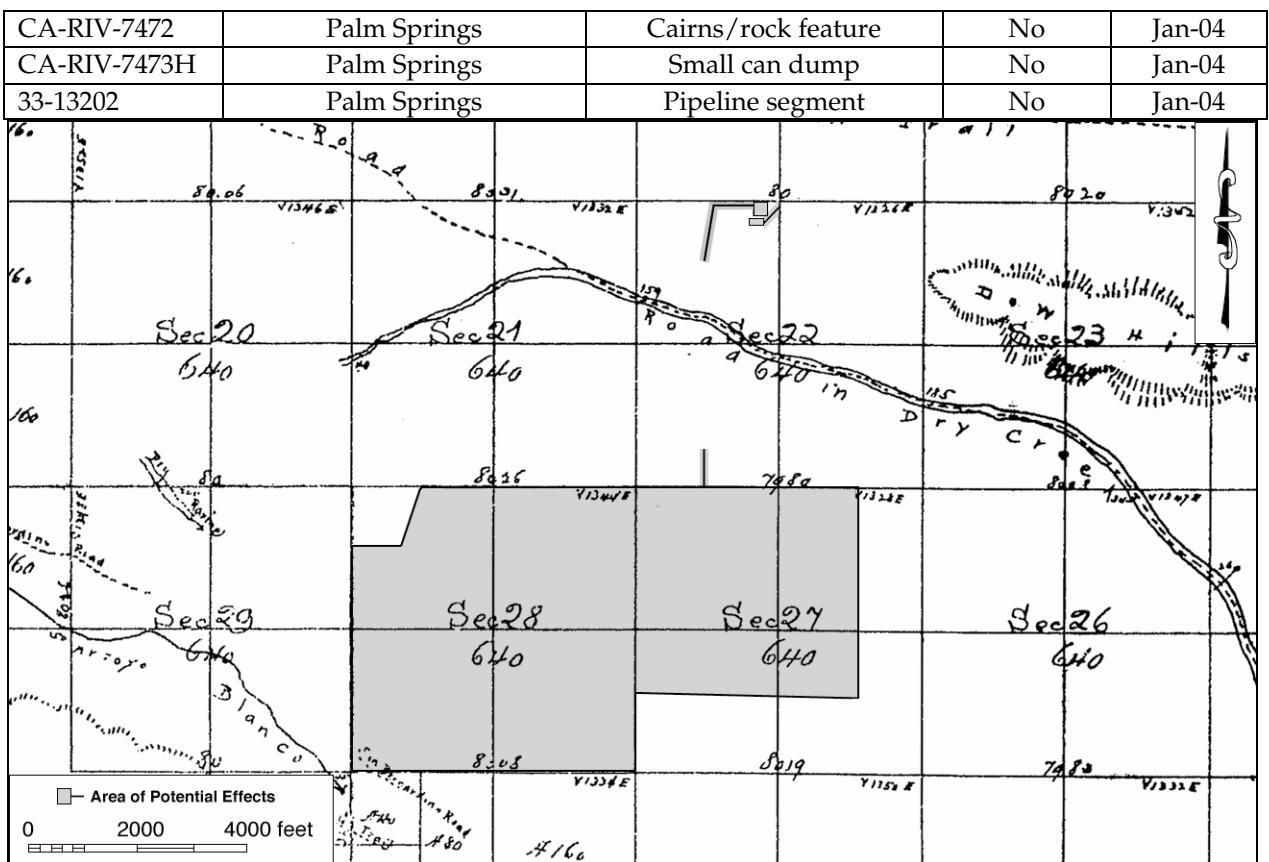


Figure 6. The APE in 1855-1856. (Source: GLO 1856)

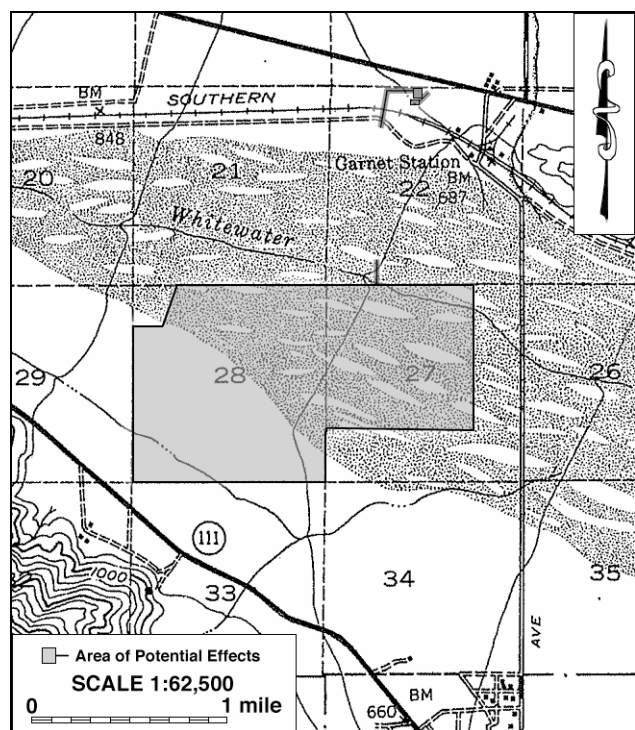
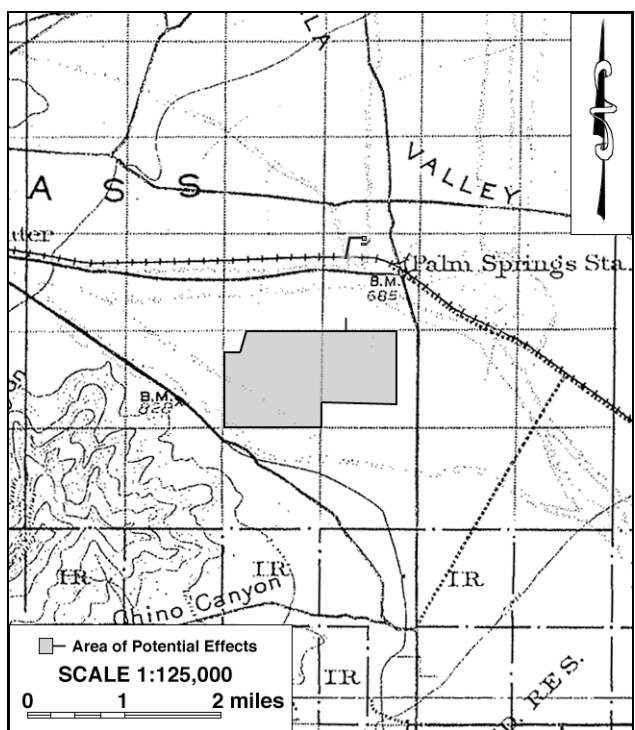


Figure 7. The APE and vicinity in 1897-1898. (Source: USGS 1901)

Figure 8. The APE and vicinity in 1940. (Source: USGS 1940)

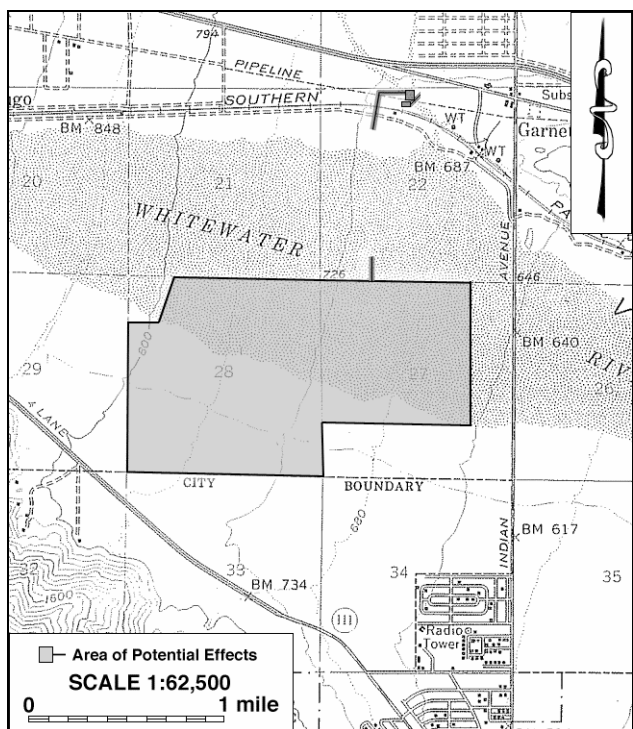


Figure 9. The APE and vicinity in 1951-1957. (Source: USGS 1957)

Upon receiving the Native American Heritage Commission's response, CRM TECH contacted all 25 individuals on the list and the organizations they represent by fax and by mail on June 27, 2006. Telephone contact with the Native American representatives were carried out on July 17 and 18, 2006. As of this time, two written and six verbal responses have been received, representing six Native American Tribes and two additional individuals (see App. 2).

Britt Wilson, Cultural Resource Coordinator for the Morongo Band of Mission Indians, responded in a letter dated July 7, 2006, stating that the APE is located in an area that the Morongo Tribe has cultural ties to, but that the Tribe has no specific information regarding cultural resources in or near the APE. Mr. Wilson requests that the County Coroner's Office be contacted if any human remains are uncovered during construction and that a qualified archaeologist be consulted if cultural

deposits are uncovered. He also requests a copy of any cultural resources report generated from the undertaking.

Mary Ann Green, Tribal Chairperson of the Augustine Band of Cahuilla Indians, responded in a letter dated July 19, 2006, stating that the Band is not aware of any cultural resources that might be affected by the proposed project. However, Ms. Green encourages the project proponent to retain a Native American monitor during the undertaking.

Among the six individuals who responded verbally, one stated that her Tribe had no archival information regarding cultural resources in the vicinity of the APE, another recommended that the Agua Caliente Band of Cahuilla Indians be notified if cultural material was encountered, one stated that he would be concerned only if cultural material was found, and three did not have any comment regarding the APE (see App. 2).

In summary, of the eight Native American representatives who responded to CRM TECH's inquiries, the majority either did not have concerns about the APE or had no comment at this time. The Agua Caliente Band of Cahuilla Indians, the nearest Native American group to the APE, has yet to reply. At this time, CRM TECH continues to collect Native American responses should any be forthcoming. If any further Native American concerns over cultural resource issues arise regarding this undertaking, they will be reported immediately to the BLM and the CVWD.

#### **FIELD SURVEY**

During the field survey, the former Southern Pacific Railroad (Site CA-RIV-6381H) was noted at its previously recorded location, still under heavy use today as part of the Union Pacific Railroad system. Like other historic-period transportation arteries that remain a part of the modern infrastructure, the physical features associated the rail line are mostly of modern origin, and none of them dates to the period when the Southern Pacific's Coachella Valley line was first completed in the 1870s. As a result, the railroad features at this location demonstrate no distinctive historical characteristics.

In addition to the rail line at Site CA-RIV-6381H, seven small buildings of plain appearance and utilitarian character (Fig. 10) were noted within the APE. They are apparently used as storage facilities for the construction and maintenance of the existing windmills near the APE. Four of them are wood-frame structures, and the other three are built of concrete blocks. All of these buildings are clearly modern in origin and architecturally nondescript, and thus require no further consideration during this study.

Also found in the APE were several power poles, dirt roads, and earthen levees, all of them are of indeterminate age. As Figures 6-9 demonstrate, none of these features is documented in historic maps, or by any other historical sources consulted for this study. The row of wooden power poles runs along the southernmost dirt road in the APE, and some appear to have been blown down by high winds. The levees are constructed both within and near the APE, and are likely used for flood control. None of these minor, ubiquitous features exhibits any particular historical characteristics. Therefore, none of them was recorded during the survey.



Figure 10. Typical modern building in the APE. (Photo taken in June 2006; view to the north)

## DISCUSSION

The purpose of this study is to identify and evaluate any historic properties that may exist within or adjacent to the Area of Potential Effects of the proposed undertaking, and assess

the undertaking's potential effects on such properties, if any. "Historic properties," as defined by the Advisory Council on Historic Preservation, include "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior" (36 CFR 800.16(l)). The eligibility for inclusion in the National Register is determined by applying the following criteria, developed by the National Park Service as per provision of the National Historic Preservation Act:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or

- (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

For CEQA-compliance considerations, the State of California's Public Resources Code (PRC) establishes the definitions and criteria for "historical resources," which require similar protection to what NHPA Section 106 mandates for historic properties. "Historical resources," according to PRC §5020.1(j), "includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 CCR §15064.5(a)(1)-(3)).

Regarding the proper criteria of historical significance, CEQA guidelines mandate that "a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

As stated above, Site CA-RIV-6381H (33-9498), a previously recorded linear site representing the former Southern Pacific Railroad, lies across a linear portion of the APE. Constructed in the 1870s as a part of the Southern Pacific main line to New Orleans, Louisiana, this rail line once played an important role in the growth of the Coachella Valley and the State of California in general. However, due to the lack of historic integrity to relate to its period of significance, another segment of the railroad in the Coachella Valley was previously determined not to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources (Taniguchi and Galvin 2005:5).

At the location of the present APE, the existing rail line, as a working component of the modern transportation infrastructure, has similarly lost much of its historic integrity as the results of continuous upgrading and replacement over the past 130 years. Because of these

physical alterations, of the seven aspects of historic integrity required by the National Register of Historic Places, the rail line today retains little more than the aspect of location alone, while the elements of design, setting, materials, workmanship, feeling, and association have all been compromised to various extents (NPS 1991:44). Consequently, the present study concurs with the previous evaluation of Site CA-RIV-6381H, and concludes that the site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. Furthermore, the proposed undertaking entails only the installation of overhead power transmission lines at this location, and thus has no potential to impact the site.

Since Site CA-RIV-6381H does not appear to qualify as a "historic property" or a "historical resource," as defined above, and since no other potential "historic properties" or "historical resources" were encountered, CRM TECH further concludes that *no "historic properties" or "historical resources" are present within the APE.*

## CONCLUSION AND RECOMMENDATIONS

Section 106 of the National Historic Preservation Act mandates that federal agencies take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects on such properties (36 CFR 800.1(a)). Similarly, CEQA establishes that "a project 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" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired."

The results of this study indicate that no "historic property" or "historical resource" exists within the APE. Accordingly, CRM TECH presents to the CVWD and the BLM the following recommendations regarding the proposed undertaking:

- No known "historic properties" or "historical resources" will be affected by the undertaking as currently proposed.
- No further cultural resources investigation is mandated for the proposed undertaking unless project plans undergo such changes as to include areas not covered by this study.
- Any buried cultural materials unearthed during earth-moving operations associated to the undertaking should be examined and evaluated by a qualified archaeologist prior to further disturbances.

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1991 *The Cahuilla Landscape: The Santa Rosa and San Jacinto Mountains*. Ballena Press, Menlo Park.
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1901 Map: San Jacinto, Calif. (30', 1:125,000); surveyed in 1897-1898.  
1940 Map: Palm Springs, Calif. (15', 1:62,500); aerial photographs taken in 1940.  
1957 Map: Palm Springs, Calif. (15', 1:62,500); aerial photographs taken in 1951-1956, field-checked in 1955-1957.  
1978 Map: Desert Hot Springs, Calif. (7.5', 1:24,000); 1955 edition photorevised in 1972 and photoinspected 1978

1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised.  
1996 Map: Palm Springs, Calif. (7.5', 1:24,000); aerial photographs taken 1994.



**APPENDIX 1**  
**PERSONNEL QUALIFICATIONS**

## PRINCIPAL INVESTIGATOR/HISTORIAN

Bai "Tom" Tang, M.A.

### Education

- 1988-1993 Graduate Program in Public History/Historic Preservation, UC Riverside.  
1987 M.A., American History, Yale University, New Haven, Connecticut.  
1982 B.A., History, Northwestern University, Xi'an, China.
- 2000 "Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.  
1994 "Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

### Professional Experience

- 2002- Principal Investigator, CRM TECH, Riverside, California.  
1993-2002 Project Historian/Architectural Historian, CRM TECH, Riverside, California.  
1993-1997 Project Historian, Greenwood and Associates, Pacific Palisades, California.  
1991-1993 Project Historian, Archaeological Research Unit, UC Riverside.  
1990 Intern Researcher, California State Office of Historic Preservation, Sacramento.  
1990-1992 Teaching Assistant, History of Modern World, UC Riverside.  
1988-1993 Research Assistant, American Social History, UC Riverside.  
1985-1988 Research Assistant, Modern Chinese History, Yale University.  
1985-1986 Teaching Assistant, Modern Chinese History, Yale University.  
1982-1985 Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

### Honors and Awards

- 1988-1990 University of California Graduate Fellowship, UC Riverside.  
1985-1987 Yale University Fellowship, Yale University Graduate School.  
1980, 1981 President's Honor List, Northwestern University, Xi'an, China.

### Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (With Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

### Membership

California Preservation Foundation.

**PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST**  
**Michael Hogan, Ph.D., RPA\***

**Education**

- 1991 Ph.D., Anthropology, University of California, Riverside.  
1981 B.S., Anthropology, University of California, Riverside; with honors.  
1980-1981 Education Abroad Program, Lima, Peru.
- 2002 Section 106—National Historic Preservation Act: Federal Law at the Local Level. UCLA Extension Course #888.  
2002 "Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.  
2002 "Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.  
1992 "Southern California Ceramics Workshop," presented by Jerry Schaefer.  
1992 "Historic Artifact Workshop," presented by Anne Duffield-Stoll.

**Professional Experience**

- 2002- Principal Investigator, CRM TECH, Riverside, California.  
1999-2002 Project Archaeologist/Field Director, CRM TECH, Riverside.  
1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands.  
1992-1998 Assistant Research Anthropologist, University of California, Riverside  
1992-1995 Project Director, Archaeological Research Unit, U. C. Riverside.  
1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College, UC Riverside, Chapman University, and San Bernardino Valley College.  
1991-1992 Crew Chief, Archaeological Research Unit, U. C. Riverside.  
1984-1998 Archaeological Technician, Field Director, and Project Director for various southern California cultural resources management firms.

**Research Interests**

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

**Cultural Resources Management Reports**

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

**Memberships**

\* Register of Professional Archaeologists.  
Society for American Archaeology.  
Society for California Archaeology.  
Pacific Coast Archaeological Society.  
Coachella Valley Archaeological Society.

**PROJECT ARCHAEOLOGIST/REPORT WRITER**  
**Zachary X. Hruby, Ph.D.**

**Education**

2006 Ph.D., Anthropology (emphasis in Archaeology), University of California, Riverside.  
1998 M.A., Anthropology (emphasis in Archaeology), Brigham Young University, Provo, Utah.  
1995 B.A., Anthropology (emphasis in Archaeology), minor in Geology, Humboldt State University, Arcata, California.

**Professional Experience**

2006- Project Archaeologist, CRM TECH, Riverside.  
2005- Lithic Analyst, Holmul Archaeological Project, Peten, Guatemala.  
2003 Project Co-director, Proyecto Arqueologico del Jade, Jalapa, Guatemala.  
2002 Lithic Analyst, Proyecto Arqueologico de Kaminaljuyu, Guatemala.  
1997-2001 Lithic Analyst and Project Photographer, Proyecto Arqueologico Piedras Negras, Peten, Guatemala.  
1995 Field Archaeologist, La Lima, Honduras.  
1993-1996 Field Archaeologist, Tel Dor Archaeological Project, Israel.

**Research Interests**

Ancient Maya social organization, lithic technology, writing, religion, and art. Southern Californian and Great Basin lithic technology and craft production.

**Memberships**

Society for American Archaeology.  
American Anthropological Association.  
Society for California Archaeology.

**PROJECT ARCHAEOLOGIST/FIELD DIRECTOR**  
**Daniel Ballester, B.A.**

**Education**

- 1998 B.A., Anthropology, California State University, San Bernardino.  
1997 Archaeological Field School, University of Las Vegas and University of California, Riverside.  
1994 University of Puerto Rico, Rio Piedras, Puerto Rico.  
2002 "Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside.

**Professional Experience**

- 2002- Field Director, CRM TECH, Riverside.  
o Report writing, site record preparation, and supervisory responsibilities over all aspects of fieldwork and field crew.  
1999-2002 Project Archaeologist, CRM TECH, Riverside.  
o Survey, testing, data recovery, monitoring, and mapping.  
1998-1999 Field Crew, K.E.A. Environmental, San Diego.  
o Two and a half months of excavations on Topomai village site, Marine Corp Air Station, Camp Pendleton.  
1998 Field Crew, A.S.M. Affiliates, Encinitas.  
o Two weeks of excavations on a site on Red Beach, Camp Pendleton, and two weeks of survey in Camp Pendleton, Otay Mesa, and Encinitas.  
1998 Field Crew, Archaeological Research Unit, University of California, Riverside.  
o Two weeks of survey in Anza Borrego Desert State Park and Eureka Valley, Death Valley National Park.

**PROJECT ARCHAEOLOGIST**  
**Nina Gallardo, B.A.**

**Education**

- 2004 B.A., Anthropology/Law and Society, University of California, Riverside.

**Professional Experience**

- 2004- Project Archaeologist, CRM TECH, Riverside.

**Honors and Awards**

2000-2002 Dean's Honors List, University of California, Riverside.

**PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON**  
**Laura Hensley Shaker, B.S.**

**Education**

- 1998 B.S., Anthropology (with emphasis in Archaeology), University of California, Riverside.
- 1997 Archaeological Field School, University of California, Riverside.
- 2002 "Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside.
- 1999 "Unexploded Ordinance Training," presented by EOD officers; Fort Irwin Army Training Facility, Barstow.

**Professional Experience**

- 1999- Project Archaeologist, CRM TECH, Riverside.
- 1999 Archaeological survey and excavation at Vandenburg Airforce Base; Applied Earthworks, Lompoc.
- 1999 Archaeological survey at Fort Irwin Army Training Facility, Barstow; A.S.M. Affiliates, Encinitas.
- 1998-1999 Paleontological field work and laboratory procedures, Eastside Reservoir Project; San Bernardino County Museum, Redlands.
- 1998 Archaeological survey at the Anza-Borrego State Park; Archaeological Research Unit, U.C. Riverside.
- 1997-1998 Archaeological survey and excavation at the Twentynine Palms Marine Corps Air and Ground Combat Center; Archaeological Research Unit, U.C. Riverside.



**APPENDIX 2**

**CORRESPONDENCES WITH  
NATIVE AMERICAN REPRESENTATIVES\***

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\* All persons and organizations in the Native American Heritage Commission's referral list were contacted. A sample letter is included in this report.