Appendix C

Cultural Resources Report

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

March 6, 2023

Nicole Sauviat Criste, Principal
Terra Nova Planning and Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

Re: Update to Historical/Archaeological Resources Studies
Assessor's Parcel No. 600-030-018
City of La Quinta, Riverside County, California
CRM TECH Contract No. 3967

Dear Nicole:

At your request, CRM TECH has completed an update to previously completed historical/ archaeological resources studies on Assessor's Parcel Nos. 600-030-018, located on the northeast corner of Dune Palms Road and Highway 111 in the City of La Quinta, within the northeast quarter of Section 28, T5S R7E, San Bernardino Baseline and Meridian (Figs. 1, 2). The study is part of the environmental review process for the proposed development of a commercial complex on the southern portion of the 9.13-acre parcel and approximately 120 residential units on the northern portion. The City of La Quinta, as the lead agency for the project, required the study pursuant to the California Environmental Quality Act (CEQA) and the City's Historic Preservation Ordinance. The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in the project area.

Background

As you know, in 2008 CRM TECH conducted a standard Phase I cultural resources survey for a proposed commercial development project on the same parcel (Encarnacion and Hogan 2008; see Attachment A). As a result, an archaeological site of prehistoric—i.e., Native American—origin was recorded within the project area. Designated 33-016950 (CA-RIV-8835) in the California Historical Resources Inventory, the site consisted of a scatter of fire-affected clay mixed with some ceramic sherds and fire-affected rocks (see Attachment B). An archaeological testing and evaluation program was subsequently completed at the site in the same year, which yielded a limited quantity of additional artifacts but also cremated human remains (Eddy et al. 2008; see Attachment A).

Due to its limited archaeological data potential, Site 33-016950 as a whole was determined not to constitute a "historical resource" under CEQA provisions, but the cremation remains were found to qualify as a "historical resource" in their own right because of their high degree of traditional cultural value to the local Native American community (Eddy et al. 2008:45). Since the remains were recovered from the site during the testing and evaluation program and later repatriated to the Torres Martinez Desert Cahuilla Indians, it was concluded at the completion of that study that

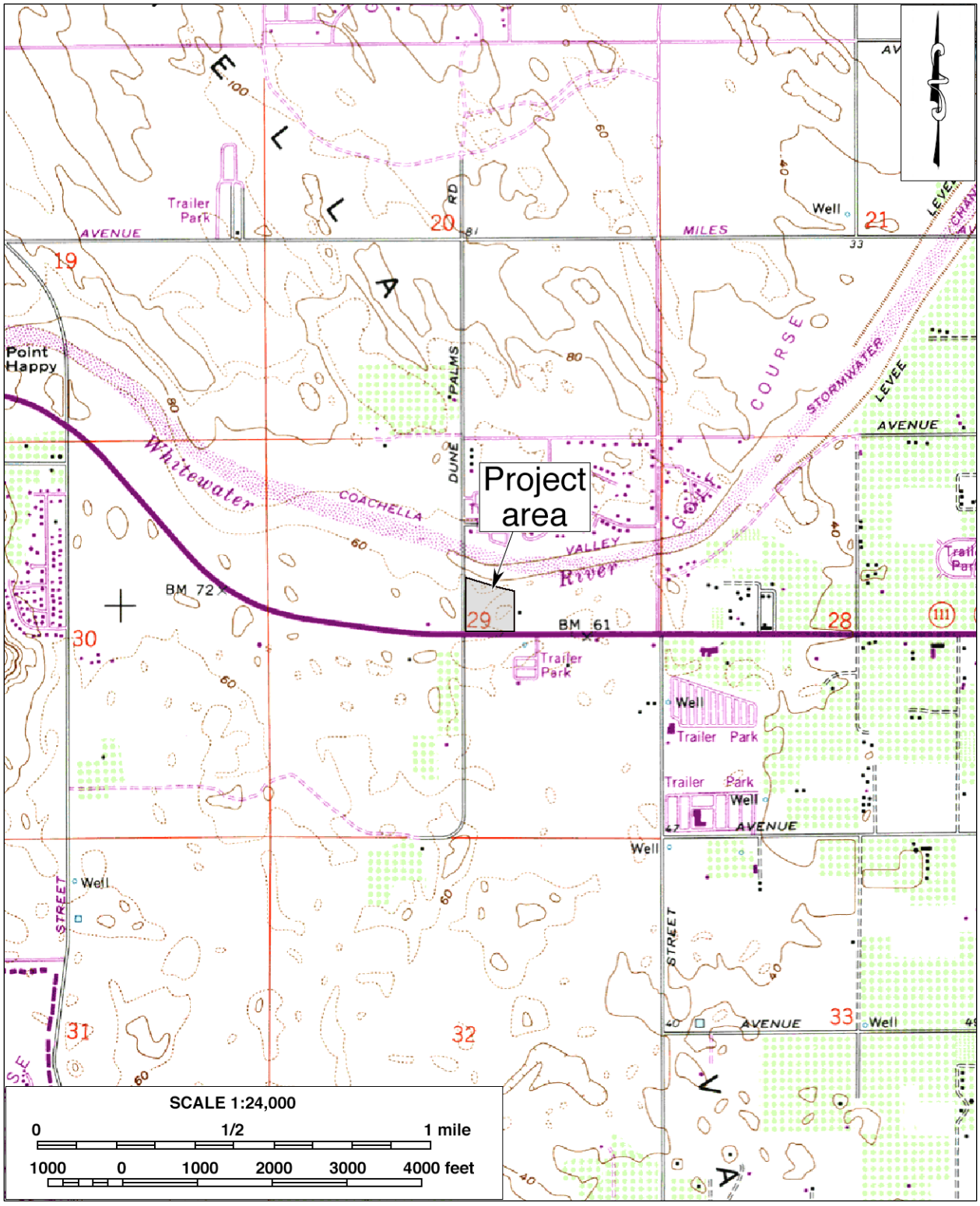


Figure 1. Project location. (Based on USGS La Quinta, Calif., 1:24,000 quadrangles, [USGS 1980])

Figure 2. Recent satellite image of the project area.

potential project effects on this "historical resource" had been mitigated to a level less than significant (*ibid*.:46). Therefore, CRM TECH recommended to the City of La Quinta at the time that the project be cleared to proceed under the condition that archaeological monitoring be required during all earth-moving activities in the project area (*ibid*.).

As 15 years have passed since the last known fieldwork on this archaeologically sensitive property, the present study was designed and implemented to update the findings the 2008 studies. Research procedures completed during this study included an update to the historical/archaeological resources records search, contact with pertinent Native American representatives, supplemental historical background research using sources that have become available since 2008, and a field inspection of the project area. A summary of the methods and results of these procedures is presented below, along with the final conclusion of the study.

Historical/Archaeological Resources Records Search

The historical/archaeological resources records search for this study was provided by the Eastern Information Center (EIC), University of California, Riverside, on March 3, 2023. The results of the records search indicated that the 2008 CRM TECH studies remain the only systematic cultural resource studies focusing on the project area. Since 2008, the only studies that have involved the project location or any of the adjacent properties are an overview for the 2010 update to the City of La Quinta General Plan and a series of studies along the Coachella Valley Stormwater Channel in 2012-2013.

The records search further indicates that no additional cultural resources have been identified within or adjacent to the project area since 2008. Within a one-mile radius, more than 30 cultural resources have been recorded since then. None of them, however, were found in the immediate vicinity of the project area. Therefore, none of them require further consideration during this study.

Native American Input

On November 16, 2022, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for updated information in the Sacred Lands File pertaining to the project vicinity. In response, the NAHC stated in a letter dated December 9 that the Sacred Lands File identified no Native American tribal cultural resources in or near the project area. As in 2008, the NAHC recommended that local Native American groups be consulted for further information and provided a referral list of potential contacts for that purpose. The NAHC's reply is attached to this report in Attachment C for reference by the City of La Quinta in future government-to-government consultations with the pertinent tribal groups, if necessary.

As a part of this study, CRM TECH contacted the Cabazon Band of Mission Indians and the Torres Martinez Desert Cahuilla Indians between November 16, 2022, and February 9, 2023, for their input on potential Native American cultural resources in the project vicinity and to arrange for Torres Martinez to participate in the archaeological fieldwork, in accordance with prior requests from the tribe. As a result, the Torres Martinez Desert Cahuilla Indians provided a monitor during the field inspection of the project area, but neither of the two tribes has offered any information on potential Native American cultural resources in the vicinity (see Attachment C).

Supplementary Historical Research

During the present study, aerial and satellite photographs that have become available since 2008 were examined for supplementary information on the historical background of the project area. Taken between 1972 and 2021, the aerial and satellite photographs are accessible at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software. These sources confirm that the project area has remained unsettled and undeveloped to the present time (NETR Online 1972-2020; Google Earth 1996-2021). While some evidence of human activities, such as rudimentary dirt paths, was noted in the project area in the most recent decades, no such features were present on the property in the 1970s (*ibid.*).

Field Inspection

The field inspection of the project area was carried out on February 13, 2023, by CRM TECH principal investigator Daniel Ballester, M.S., with the assistance of Native America monitor Isaac Morales from the Torres Martinez Desert Cahuilla Indians. The inspection was completed at an intensive level by walking a series of parallel north-south transects spaced 15 meters (approximately 50 feet) apart. Ground visibility was excellent throughout the project area due to the lack of any significant vegetation cover (Fig. 3).

During the field inspection, additional prehistoric artifacts were observed on the ground surface in the area of Site 33-016950, including 32 buffware ceramic sherds and approximately 50 fragments of fire-affected clay, probably the result of exposure by natural erosion due to wind or rainstorm runoff. Most of the artifacts were found within the previously established boundary of 33-016950, but some of the sherds were located outside the original extent of the site, resulting in minor adjustments to the site boundary to encompass their locations (see Attachment B). All of the artifacts observed during the field inspection were consistent in appearance with those recovered during the 2008 studies.

No other potential cultural resources were encountered within or adjacent to the project area during the field inspection. Evidence of recent ground disturbances was noted along the perimeter of the project area, apparently resulting from construction activities on the adjacent land and the installation of underground utilities near the project boundaries. Scattered modern refuse was also observed across the project area, but none of the items were of any historical/archaeological interest.

Conclusion and Recommendations

In summary of the research results presented above, the only cultural resource known to exist in the project area, Site 33-016950, was previously determined not to meet CEQA definition of a "historical resource" due to its limited archaeological data potential. The additional artifacts discovered at the site during this study are similar to those recovered in 2008, and all of them belong to common artifact types that are frequently found at prehistoric sites in the Coachella Valley. As such, they do not add substantially to the data potential of the site, and their discovery therefore does not alter the previous evaluation of the site as a whole.

Although the cremation remains found at the site in 2008 were considered a "historical resource" in their own right, all of the remains were recovered during the archaeological testing and evaluation

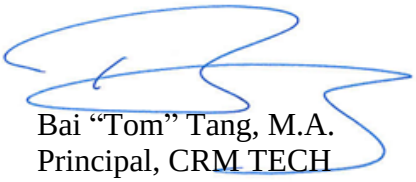
Figure 3. Current condition of the project area. (Photograph taken on February 13, 2022; view to the northeast)

program at the time, and the potential effects of future development on this property have been mitigated. Based on these considerations, the present study concludes that no "historical resources" are currently present within the project area. Therefore, the final conclusion of the 2008 studies that no "historical resources" would be affected by the development of the property remains valid and appropriate.

Because of the demonstrated sensitivity of the project area for additional subsurface cultural remains of prehistoric origin, CRM TECH reiterates the recommendations presented to the City of La Quinta in 2008 that all grubbing, grading, trenching, excavations, and other earth-moving activities in the project area be monitored by a qualified archaeologist to ensure the timely identification and, if necessary, protection of such remains, should any be discovered. The monitoring program should be coordinated with the Cabazon Band of Mission Indians and the Torres Martinez Desert Cahuilla Indians, who may wish to participate. Under this condition, the proposed project may be cleared to proceed in compliance with the cultural resource provisions of CEQA.

Thank you for this opportunity to be of service. Should you have any questions or need additional information, please feel free to contact our office.

Sincerely,



Bai “Tom” Tang, M.A.
Principal, CRM TECH

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Eddy, John J., Mariam Dahdul, Harry M. Quinn, and Matthew Wetherbee
2008 Final Cultural Resources Report: Archaeological Testing and Evaluation of Site CA-RIV-8835 (33-16950), Assessor’s Parcel No. 600-030-018, City of La Quinta, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

Encarnación, Deirdre, and Michael Hogan
2008 Historical/Archaeological Resources Survey Report: Assessor’s Parcel No. 600-030-018, City of La Quinta, Riverside County, California. On file, Eastern Information Center, University of California, Riverside.

Google Earth
1996-2021 Aerial photographs of the project vicinity; taken in 1996, 2002, 2004-2006, 2009, 2011-2013, 2014-2019, and 2021. Available through the Google Earth software.

NETR Online
1972-2020 Aerial photographs of the project vicinity; taken in 1972, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. http://www.historicaerials.com.

ATTACHMENT A

2008 CULTURAL RESOURCES STUDIES

Phases I and II

RI-7777

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

ASSESSOR'S PARCEL NO. 600-030-018

City of La Quinta
Riverside County, California

For Submittal to:

Community Development Department
City of La Quinta
78495 Calle Tempico
La Quinta, CA 92253

Prepared for:

Brad Sobel
Sobel Enterprises, Inc.
420 S. Beverly Drive, Suite 200
Beverly Hills, CA 90212

Prepared by:

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

March 24, 2008
CRM TECH Contract No. 2212

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Author(s): Deirdre Encarnación, Archaeologist/Report Writer
Michael Hogan, Principal Investigator

Consulting Firm: CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: March 24, 2008

Title: Historical/Archaeological Resources Survey Report: Assessor's Parcel No. 600-030-018, City of La Quinta, Riverside County, California

For Submittal to: Community Development Department
City of La Quinta
78495 Calle Tempico
La Quinta, CA 92253
(760) 777-7000

Prepared for: Brad Sobel
Sobel Enterprises, Inc.
420 S. Beverly Drive, Suite 200
Beverly Hills, CA 90212
(310) 277-4697

USGS Quadrangle: La Quinta, Calif., 7.5' quadrangle (Section 29, T5S R7E, San Bernardino Base Meridian)

Project Size: Approximately 9.5 acres

Keywords: City of La Quinta, Riverside County; Phase I historical/archaeological resources survey; Site 33-16950/CA-RIV-8835 (prehistoric site with daub/fire-affected clay, fire-affected rock, potsherds); Phase II archaeological testing and evaluation program recommended to determine site significance

MANAGEMENT SUMMARY

In February and March 2008, at the request of Sobel Enterprises, Inc., CRM TECH performed a cultural resources study on approximately 9.5 acres of vacant land in the City of La Quinta, Riverside County, California. The subject property of the study, Assessor's Parcel No. 600-030-018, is located on the northeastern corner of Dune Palms Road and State Highway 111, in the northeast quarter of Section 29, T5S R7E, San Bernardino Base Meridian. The study is part of the environmental review process for a proposed development project on the property. The City of La Quinta, as Lead Agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA) and the City's Historic Preservation Ordinance.

The purpose of the study is to provide the City of La Quinta with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any historical/archaeological resources that may exist in or around the project area, as mandated by CEQA. In order to identify and evaluate such resources, 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.

During the field survey, one previously unknown prehistoric—i.e., Native American—archaeological site was identified within the project boundaries. The site, subsequently designated Site 33-16950 (CA-RIV-8835), contains a light scatter of daub/fire-affected clay over its entire surface, with some potsherds, fire-affected rocks, and concentrations of fire-affected clay. The significance of Site 33-16950 cannot be determined due to the possibility of potentially significant subsurface cultural deposits at this location.

Other studies in the vicinity have recorded at least four prehistoric human cremations, including Site 33-6862 (CA-RIV-5764), located within one-half mile of the project area and containing over 1,200 pieces of bone and no less than 12 arrow points. Furthermore, at least four prehistoric sites dating to the pre-ceramic era, over one thousand years ago, have been recorded in the project vicinity. These deep cultural deposits are generally rare and provide highly significant information on Archaic-Period culture in the Coachella Valley, a research topic on which very little is known.

Based on these findings, CRM TECH recommends that an archaeological testing and evaluation program be completed at Site 33-16950 to determine the presence or absence of subsurface artifact deposits, and thereby the qualification of the site as a "historical resource" under CEQA provisions. The testing and evaluation program should consist of, at a minimum, surface collection of artifacts; subsurface excavations, including archaeological test units; laboratory analysis of recovered artifacts; permanent curation of the artifact assemblage at an appropriate facility; and a final report to document the findings. Further recommendations regarding the final treatment of this site will be formulated and presented on the basis of the results of the testing and evaluation program.

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LIST OF FIGURES

INTRODUCTION

In February and March 2008, at the request of Sobel Enterprises, Inc., CRM TECH performed a cultural resources study on approximately 9.5 acres of vacant land in the City of La Quinta, Riverside County, California (Fig. 1). The subject property of the study, Assessor's Parcel No. 600-030-018, is located on the northeastern corner of Dune Palms Road and State Highway 111, in the northeast quarter of Section 29, T5S R7E, San Bernardino Base Meridian (Fig. 2). The study is part of the environmental review process for a proposed development project on the property. The City of La Quinta, as Lead Agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.) and the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code).

CRM TECH performed the present study to provide the City of La Quinta with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any historical/archaeological resources that may exist in or around the project area, as mandated by CEQA. In order to identify and evaluate such resources, 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.

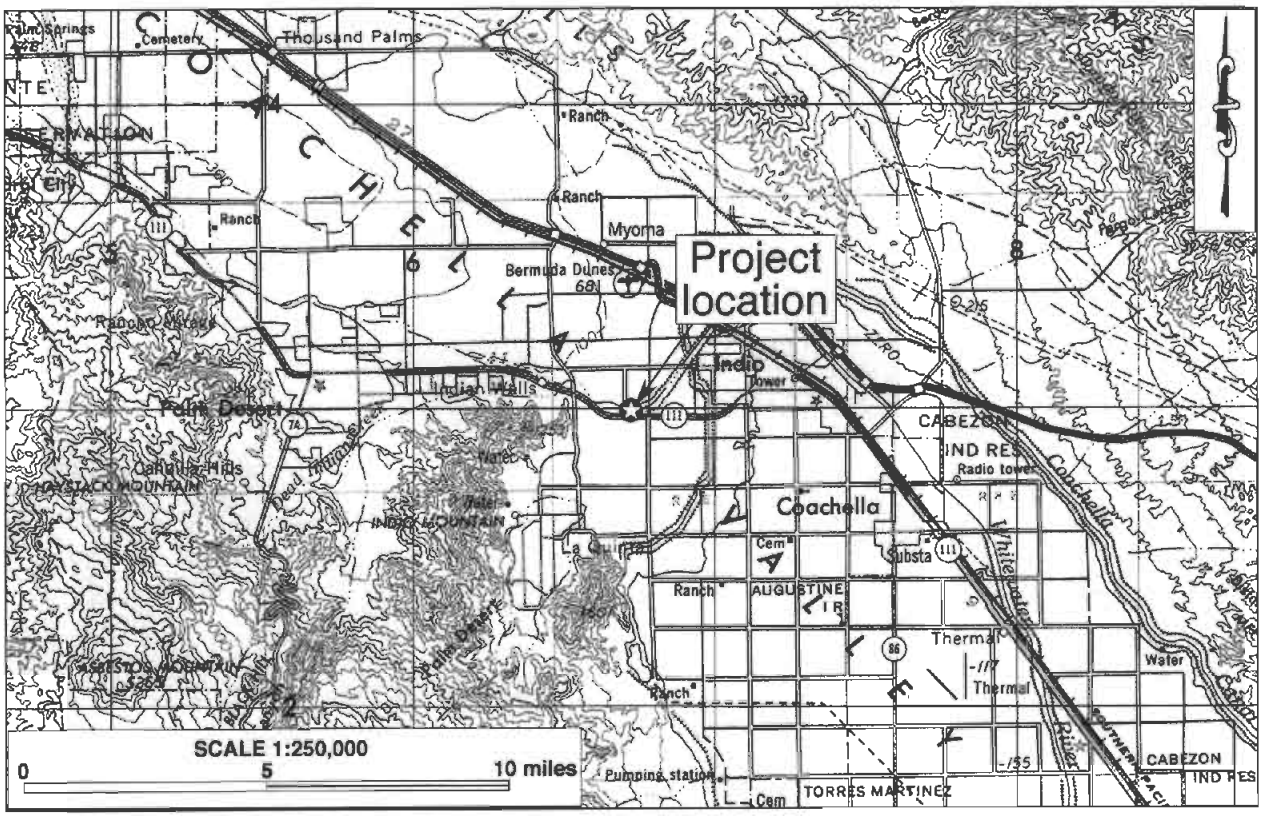

Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 1:250,000 quadrangle [USGS 1979])

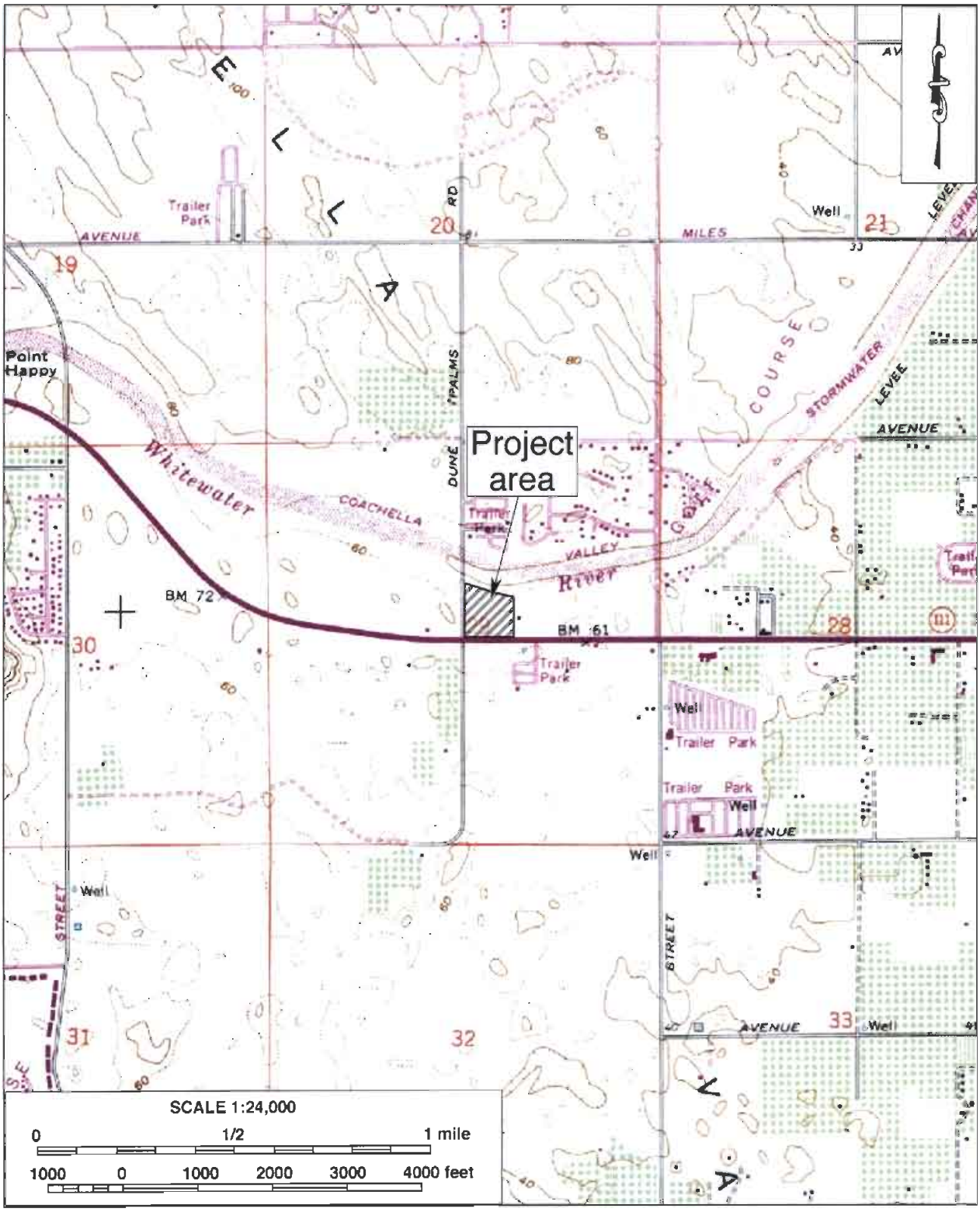

Figure 2. Project area. (Based on USGS La Quinta, Calif., 1:24,000 quadrangle [USGS 1980])

SETTING

CURRENT NATURAL SETTING

The City of La Quinta 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 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 project area is bounded by Dune Palms Road on the west, Highway 111 on the south, a shopping center on the east, and the Coachella Valley Stormwater Channel on the north. The terrain within the project area is mostly level, with some low, rolling dunes and an elevation of approximately 60 feet above mean sea level. Soils in the project area consist of loose sands. The edges on all four sides of the project area have been impacted by the adjacent developments. Vegetation is sparse, and includes creosote bushes, some small mesquite thickets, and low-lying weeds and grasses (Fig. 3).

During the past centuries, Native lifeways in the Coachella Valley was greatly influenced by the inundation and desiccation of ancient Lake Cahuilla, which began to recede for the last time around A.D. 1680. The current project area lies approximately 18 feet above the highest shoreline of the lake, which ran along today's 42-foot contour line. Because of its proximity to this now-vanished freshwater lake, the area around the project area would have provided a favorable setting for Native American habitation during the last high stand of ancient Lake Cahuilla.

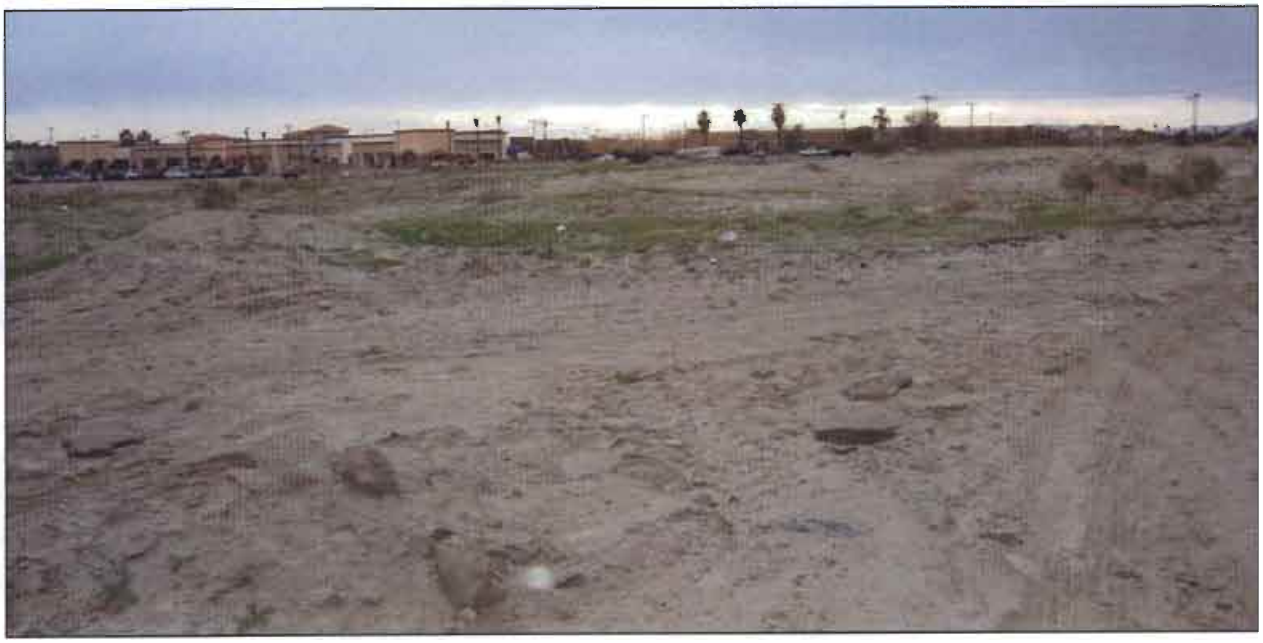

Figure 3. Overview of the current natural setting of the project area. (Photo taken on February 14, 2008; view of the southeast)

CULTURAL SETTING

Prehistoric Context

In the history of the Americas, the term "prehistoric period" refers to the time prior to the arrival of non-Indians, when native lifeways and traditions remained intact and viable. In the vicinity of present-day Cathedral City, foreign influences began to bring about profound changes to native lifeways around the late 1700s, which ushered in the "historic period."

The prehistoric period in the Coachella Valley is generally divided into the Late Prehistoric and the Archaic Periods. The transition between these two periods is generally considered to be around A.D. 1000, marked by the introduction of pottery into the region from the Colorado River cultures. For this reason, the Archaic Period is sometimes also referred to as the "preceramic" period. Other important cultural changes in prehistoric times include the introduction of the bow and arrow, probably around A.D. 500, and the change from burial practices to cremations, perhaps around 500 B.C. Students of historical linguistics propose a migration of Takic speakers sometime between 1000 B.C. and A.D. 500 from the Great Basin region of Nevada, Utah, and eastern California into southern California.

For purposes of this study, the introduction of pottery is used as the watershed separating the Archaic Period from Late Prehistoric, although it would also be acceptable to use the other significant events in prehistory. As further archaeological work progresses, in part under the mandate of federal, state, and local historic preservation regulations, the important nodes marking cultural change over past centuries and millennia will become more clearly defined.

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 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, however, 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.

Historic Context

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco, leading a series of expeditions in search of a route to Yuma, became the first noted European explorers to travel through the Coachella Valley. However, 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 Highway 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River, until 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, and spread further 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 eventually country clubs, gradually spread throughout the Coachella Valley, and since then transformed it into southern California's leading winter retreat.

In today's City of La Quinta, the earliest settlement and land development activities did not occur until the turn of the century. In 1926, with the construction of the La Quinta Hotel, the development of La Quinta took on the character of a winter resort, typical of the desert communities along Highway 111. Beginning in the early 1930s, the subdivision of the cove area of La Quinta and the marketing of "weekend homes" further emphasized this new direction of development. On May 1, 1982, La Quinta was incorporated as the 19th city in Riverside County.

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 overall 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 regarding historical/archaeological investigations.

The City of La Quinta lies on the edge between two distinct geographic regions that have undoubtedly influenced human habitation of the area during prehistoric and historic times. The southwestern boundary of the city extends into the foothills of the Santa Rosa Mountains, but most of the city is situated on the Coachella Valley floor, along the northwest shoreline of Holocene Lake Cahuilla. The Whitewater River traverses in an east-west direction across the northernmost portion of the city limits.

During prehistoric times, when Holocene Lake Cahuilla inundated the 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 record available for the City of La Quinta, the majority of the prehistoric sites that have been identified were located in the northern and southern ends of the city limits. The sites to the south were few in number but consisted of a variety of types such as ceramic scatters, bedrock milling features, Native American trails, rock cairns, and at least one rock shelter. The sites to the north included the remains of ancient village areas, cremations, lithic and ceramic scatters, hearths, trails, and other habitation debris.

Historic occupation of the La Quinta area can be traced back to the early 20th century, as mentioned above, with the establishment of a small number of early homesteads. However, cultural resources associated with this time period are limited in number. Today, the oldest surviving buildings in La Quinta date to the 1920s-1930s, when the construction of the La Quinta Hotel and the subdivision of the Cove area changed the character of the community to that of a winter resort. These early buildings are almost uniformly of the Spanish Eclectic style, introduced to the region by the landmark La Quinta Hotel. The majority of recorded historic-period buildings in La Quinta, however, are single-family residences dating to the post-WWII boom period, predominantly in the then-popular Ranch and Modern styles.

The primary goal of the current study is to identify any prehistoric or historic-period resources that may be present within the project area. This identification process includes a historical/archaeological resources records search, historical background research, Native American contacts, and an intensive-level field inspection of the project area.

A standard set of research questions can be applied to almost any archaeological investigation; however, the specifics of each case require refinement and focus of the general research questions. General questions that guide an investigation include (1) chronology: the age and duration of site occupation; (2) subsistence: the daily diet and range of natural resources that were collected and consumed; (3) settlement patterns: whether the site was a temporary or permanent, large or small settlement; and (4) trade or external contacts: the evidence for exchange with outside groups based on the presence or absence of exotic items in the archaeological record.

RESEARCH METHODS

RECORDS SEARCH

On February 21, 2008, CRM TECH archaeologist Nina Gallardo (see App. 1 for qualifications) conducted the historical/archaeological resources records search at the Eastern Information Center (EIC), University of California, Riverside. During the records search, Gallardo examined maps and records on file at the EIC for previously identified cultural resources in or near the project area, and existing cultural resources reports pertaining to the 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 RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator Bai "Tom" Tang (see App. 1 for qualifications) on the basis of published literature in local and regional history and historic maps of the La Quinta area. Among maps consulted for this study were the U.S. General Land Office's (GLO) land survey plat map dated 1856 and the U.S. Geological Survey's (USGS) topographic maps dated 1904, 1941, and 1959. 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 contacted the State of California's Native American Heritage Commission on February 19, 2008, to request a records search in the commission's sacred lands file. Following the Native American Heritage Commission's recommendations, CRM TECH contacted 12 Native American representatives in the region in writing on February 20 to solicit local Native American input regarding any potential cultural resources concerns over the proposed project. The correspondences between CRM TECH and the Native American representatives are attached to this report in Appendix 2.

FIELD SURVEY

On February 14, 2008, CRM TECH principal investigator Michael Hogan (see App. 1 for qualifications) carried out the intensive-level, on-foot field survey of the project area. During the survey, Hogan walked north-south transects spaced 10 meters (approx. 33 feet) apart. In this way, the ground surface in the entire project area was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic periods (i.e., 50 years ago or older). Ground visibility was excellent due to the sparsity of the vegetation. All landforms likely to contain or exhibit archaeologically sensitive materials were inspected carefully to ensure that cultural resources were identified and documented.

When artifacts were discovered during the survey, their locations were noted and the perimeter of the site was marked with survey flags. Upon completion of the survey, the artifacts were re-visited and photographed. Further field recordation, including descriptions of the artifacts, a location map with UTM coordinates, and a scaled sketch map, were completed to document the exact location and nature of the artifacts. The field maps and descriptions were then compiled into a standard site record form and submitted to the EIC for inclusion in the California Historical Resources Information System (see App. 3).

RESULTS AND FINDINGS

RECORDS SEARCH

According to records on file at the Eastern Information Center, the project area had not been surveyed for cultural resources prior to this study. Although no cultural resources were previously documented on the property, two archaeological sites have been recorded across the street from the project boundaries. Site 33-8692, an expansive prehistoric site, was recorded to the west of Dune Palms Road, and features scattered lithics, ceramic sherds, hearths, and other habitation debris (Love and Tang 1998). Site 33-4751, located at the southwest intersection of Dune Palms Road and Highway 111, includes both historic-period glass and prehistoric pottery (Everson 1992).

Outside the project boundaries but within a one-mile radius, EIC records show nearly 100 previous cultural resources studies covering various tracts of land and linear features, including adjacent properties to the west and south (Fig. 4). As a result of these and other similar studies in the vicinity, over 90 archaeological sites, 11 historic-period buildings, and 20 isolates—i.e., localities with fewer than three artifacts—were previously recorded within the scope of the records search.

At least 75 of the previously recorded archaeological sites were prehistoric—i.e., Native American—in nature, attesting to the high sensitivity of the project vicinity for archaeological remains. The nature of these sites ranged from small scatters of artifacts to large habitation sites. No less than four sites included human cremations, and at least four sites yielded artifacts from the Archaic-Period culture. The relatively few historic-period sites mostly contained trash scatters, while four sites contained elements of both prehistoric and historic use. At least 20 of these previously recorded sites were found within a quarter-mile of the project location, further highlighting the sensitivity of the project area itself.

HISTORICAL RESEARCH

Historic maps consulted for this study suggest that the project area remained unsettled and undeveloped throughout the historic period (Figs. 5-8), although evidence of human activities was recorded in the surrounding area as early as the mid-1850s, when the first systematic land survey was completed in the Coachella Valley. At that time and again around the turn of the century, a road, evidently a part of the Cocomaricopa-Bradshaw Trail, was observed as lying a few hundred feet north of the project area (Figs. 5, 6).

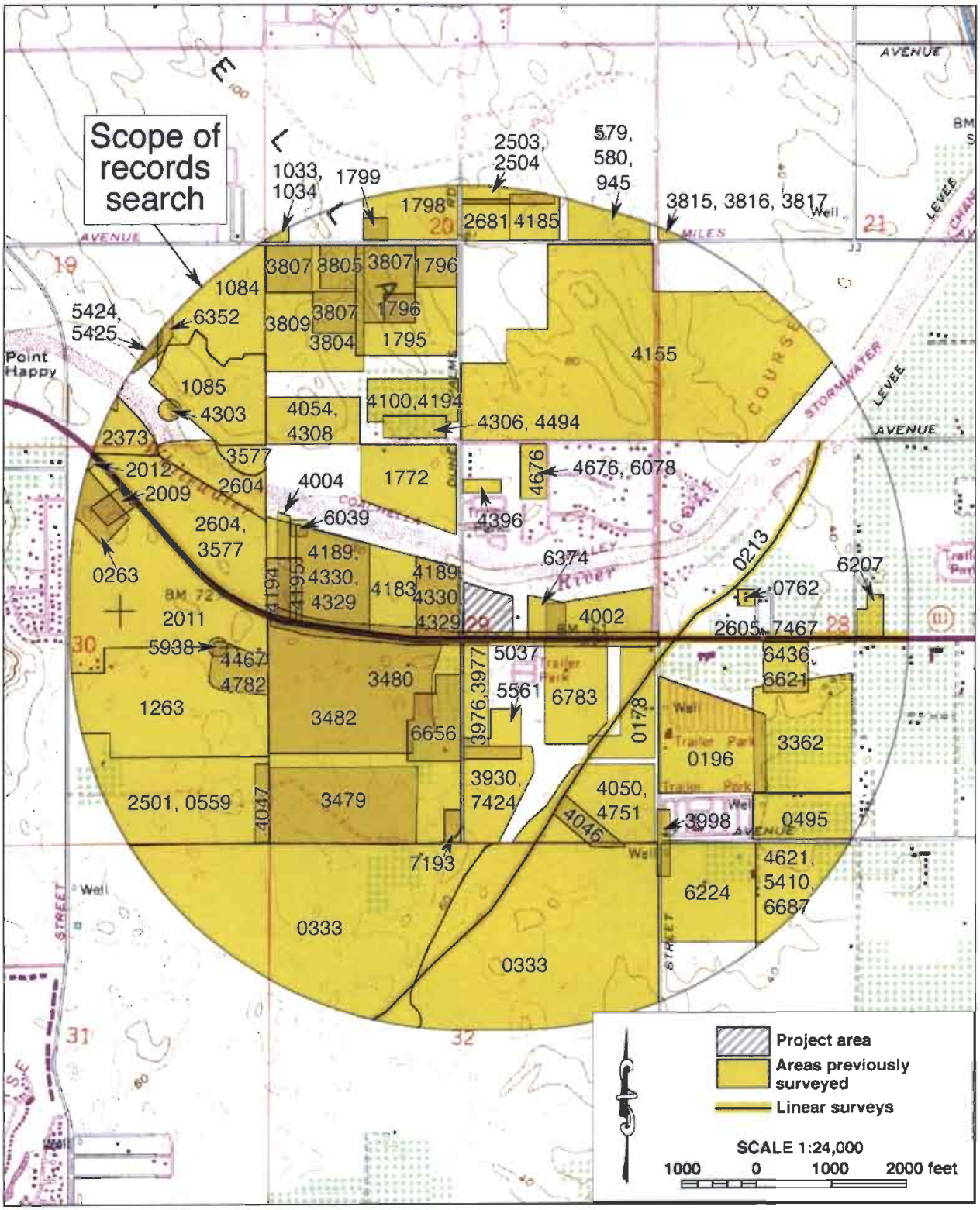

Figure 4. Previous cultural resources studies in the vicinity of the project area, listed by EIC file number. Locations of historical/archaeological sites are not shown as a protective measure.

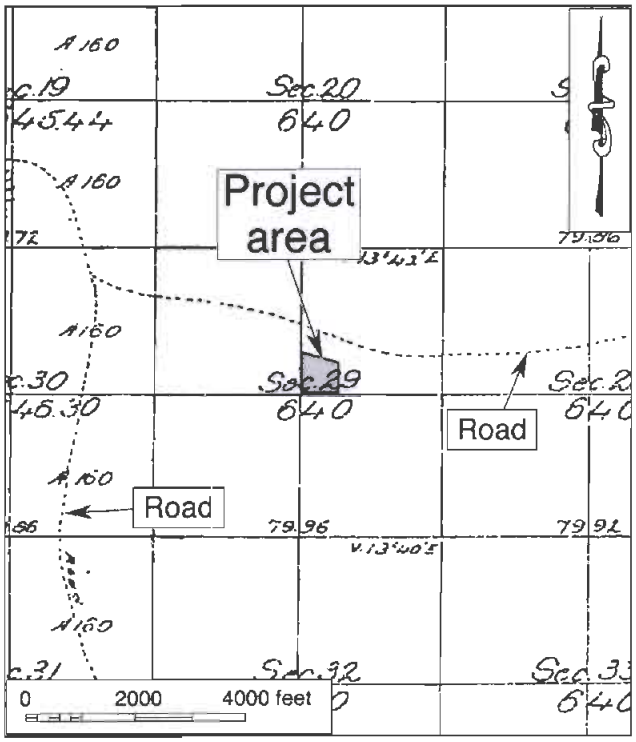

Figure 5. The project area and vicinity in 1855-1856. (Source: GLO 1856b)

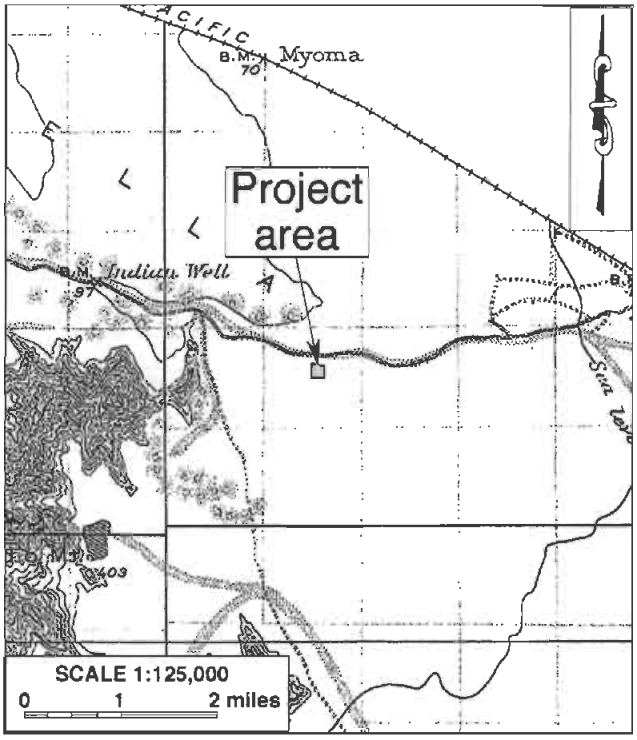

Figure 6. The project area and vicinity in 1901. (Source: USGS 1904)

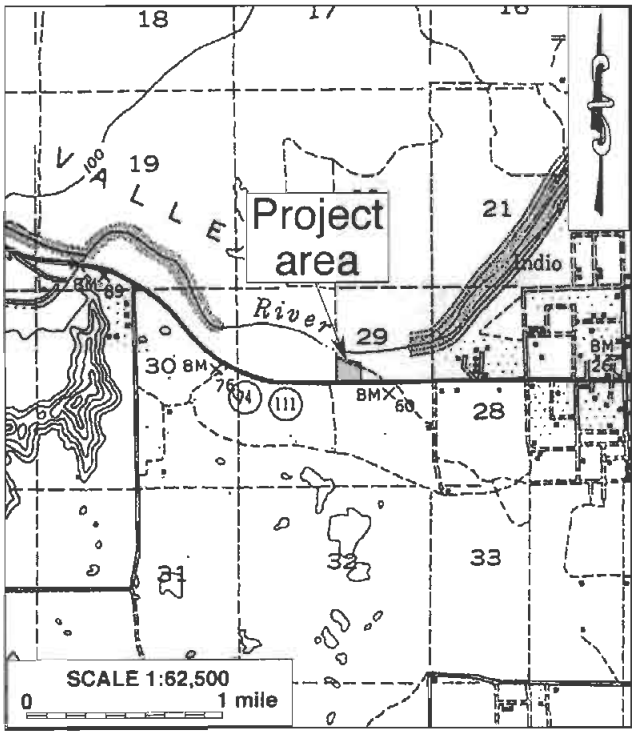

Figure 7. The project area and vicinity in 1941. (Source: USGS 1941)

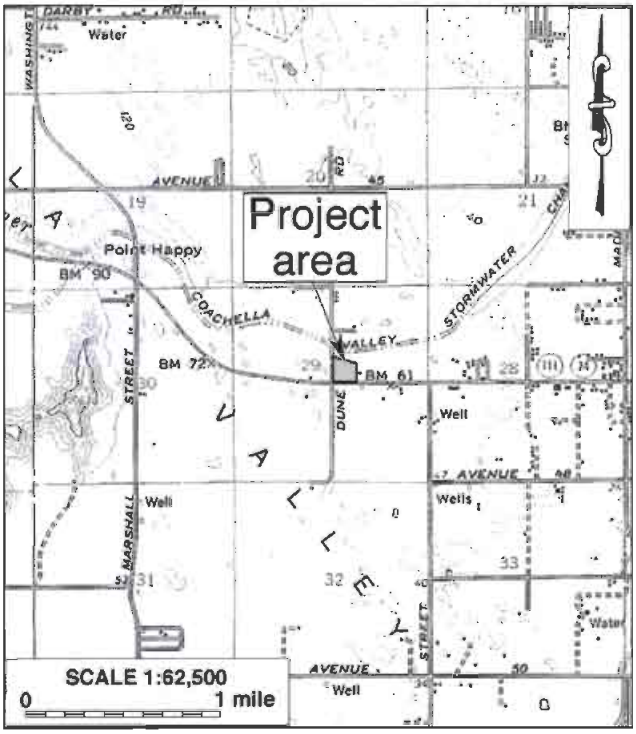

Figure 8. The project area and vicinity in 1954-1959. (Source: USGS 1959)

Also noted in the vicinity in the 1850s were the famed Palma Seca well and an Indian *ranchería*, undoubtedly the well-known Cahuilla village of *Kavinish* (Bean et al. 1991:45), both located roughly three miles west of the project area (GLO 1856a). By the end of the 19th century, the village had been abandoned, and the Palma Seca well, better known to non-Indians simply as Indian Well, had become the only identifiable place name in the vicinity (Fig. 6).

Four decades later, the surrounding area exhibited a settlement pattern that was typical for rural southern California at the time, featuring a web of crisscrossing roads lined by scattered buildings (Fig. 7). Among the roads were State Highway 74/111 and the forerunner of today's Dune Palms Road, then an unpaved dirt trail (Fig. 7). In the immediate vicinity of the project area, however, there was no evidence of any settlement or development activities at that time (Fig. 7). As late as the 1950s, despite clear signs of increased settlement activities in the vicinity, no built-environment features were known to be present within the project area (Fig. 8).

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the Native American Heritage Commission reports that the sacred lands record search identified no Native American cultural resources in the project area. However, noting that "the absence of specific site information in the Sacred Lands File does not guarantee the absence of cultural resources in any 'area of potential effects'," the commission recommends that representatives of local Native American groups be contacted for further information and provided a referral list of potential contacts in the region (see App. 2).

Upon receiving the commission's response, CRM TECH initiated correspondence with all eight individuals on the referral list and the organizations they represent. In addition, John Gomez, Jr., Cultural Resources Coordinator for the Ramona Band of Cahuilla Indians, David Saldivar, of the Augustine Band of Cahuilla Mission Indians, Maurice Chacon, Cultural Resources Coordinator for the Cahuilla Band of Indians, and Judy Stapp, Director of Cultural Affairs for the Cabazon Band of Mission Indians, were also contacted. As of this time, two written responses have been received (see App. 2).

In a letter dated February 22, 2008, Mr. Gomez identifies the project area as a part of the Ramona Band's ancestral lands. He requests copies of archaeological documentations pertaining to the project, and further consultation with the project proponents and the Lead Agency. Ms. Stapp states in her letter dated February 27 that the Cabazon Band has no specific archival information regarding cultural resources within or near the project area. However, Ms. Stapp recommends that a qualified archaeologist be on site during any ground-disturbing activities associated with the proposed project, and that the County Coroner be notified if human remains are discovered on the property.

FIELD SURVEY

During the intensive-level field survey, a previously unrecorded prehistoric archaeological site, subsequently designated Site 33-16950 (CA-RIV-8835), was found within the project area. The site consists of a scatter of daub, some of which has been burned, ceramic sherds, and fire-affected rocks. Within the site boundaries there were numerous areas with dense

concentrations of daub, including several that also contained potsherds and fire-affected rocks (Fig. 9; see App. 3 for further information). However, no obvious or definite evidence of features, such as fire pits or house rings, was found.

The site is irregular in shape and measures approximately 145 meters north-south by 130 meters east-west. A denser concentration of artifacts seemed to be present along the western slope of a small dune, marking the western boundary of the site, and within a depression that traverses through the middle of the site. It is likely that some of the daub noted throughout the site has been scattered due to disking for weed abatement. Artifact concentrations, however, looked to be in-place and indicative of more substantial subsurface deposits in the area.

Figure 9. Site 33-16950. *Left*: Site overview (to the north); *right*: rim sherd found on the surface.

DISCUSSION

Based on the research results discussed above, the following sections present CRM TECH's conclusion on whether Site 33-16950 (CA-RIV-8835), the only cultural resource encountered within the project area, meets the official definitions of a "historical resource," as provided in the California Public Resources Code, in particular CEQA.

DEFINITION

According to PRC §5020.1(j), "'historical resource' 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))

A local register of historical resources, as defined by PRC §5020.1(k), "means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." For properties within the City of La Quinta, the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code) provides for the establishment of a historic resources inventory as the official local register. A property may be considered for inclusion in the historic resources inventory based on one or more of the following:

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering or architectural history; or
B. It is identified with persons or events significant in local, state or national history; or
C. It embodies distinctive characteristics of a style, type, period or method of construction, is a valuable example of the use of the indigenous materials or craftsmanship or is representative of a notable work of an acclaimed builder, designer or architect; or
D. It is an archaeological, paleontological, botanical, geological, topographical, ecological or geographical site which has the potential of yielding information of scientific value; or
E. It is a geographically definable area possessing concentration of sites, buildings, structures, improvements or objects linked historically through location, design, setting, materials, workmanship, feeling and/or association, in which the collective value of the improvements may be greater than the value of each individual improvement. (LQMC §7.06.020)

Pursuant to these statutory and regulatory guidelines, Site 33-16950 is evaluated under both the criteria for the California Register and those for the City of La Quinta's historic resources inventory. The results of the evaluation are discussed below.

SITE EVALUATION

Site 33-16950 (CA-RIV-8835), a previously unknown prehistoric archaeological site, was recorded during this study as a scatter of prehistoric daub/burned clay, ceramic potsherds, and fire-affected rocks. Although the surface manifestations of Site 33-16950 appear to be of little archaeological importance, they may indicate the presence of additional artifacts of

unknown quality and quantity in subsurface deposits at or near this location. At this time, the depth and horizontal extent of the site remain unknown.

Numerous other prehistoric sites recorded in the immediate vicinity contained various densities of surface artifacts and subsurface deposits. The majority of these sites evidently reflected habitation activities along or near the receding shoreline of ancient Lake Cahuilla during the Late Prehistoric Period. However, several sites produced much older cultural remains, including a human cremation that dates to at least 2,500 years ago, one of the oldest human cremations in southern California and the Coachella Valley. These deep cultural deposits are extremely rare and provide highly significant information on Archaic-Period culture in the Coachella Valley, a research topic on which very little is known.

Because of its potential for subsurface deposits, the historic significance of Site 33-16950 and its qualification as a "historical resource" cannot be determined on the basis of the surface survey alone. In order to adequately evaluate the significance of 33-16950, additional archaeological investigations, including subsurface excavations, will be necessary at the site, as outlined in the section below.

CONCLUSION AND RECOMMENDATIONS

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 a historical resource would be impaired."

As stated above, 33-16950 (CA-RIV-8835), a previously unrecorded prehistoric archaeological site, lies within the project area and is likely to be impacted by the proposed project. The qualification of the site as a "historical resource" under CEQA provisions, however, cannot be determined at this time without further archaeological investigations. In order to adequately evaluate Site 33-16950, CRM TECH presents the following recommendation to the City of La Quinta:

- *An archaeological testing and evaluation program should be completed at Site 33-16950 to determine the presence or absence of substantial subsurface cultural deposits.* The testing and evaluation program should consist of, at a minimum, surface collection of artifacts, excavation of archaeological test units, laboratory analysis of recovered artifacts, permanent curation of the artifact assemblage at an appropriate facility, and a final report to document the findings.
- *Further recommendations regarding the final treatment of Site 33-16950 will be formulated and presented on the basis of the results of the testing and evaluation program.*

REFERENCES

Bean, Lowell John, Sylvia Brakke Vane, and Jackson Young
1991 *The Cahuilla Landscape: The Santa Rosa and San Jacinto Mountains*. Ballena Press, Menlo Park.

Everson, Dicken
1992 Site Record Form: Site 33-4751. On file, Eastern Information Center, University of California, Riverside.

GLO (General Land Office, U.S. Department of the Interior)
1856a Plat Map: Township No. 5 South Range No. 6 East, San Bernardino Meridian; surveyed in 1855-1856.
1856b Plat Map: Township No. 5 South Range No. 7 East, San Bernardino Meridian; surveyed in 1855-1856.

Love, Bruce, and Bai "Tom" Tang
1998 Site Record Form: Site 33-8692. On file, Eastern Information Center, University of California, Riverside.

USGS (United States Geological Survey, U.S. Department of the Interior)
1904 Map: Indio, Calif. (30', 1:125,000); surveyed in 1901.
1941 Map: Toro Peak, Calif. (15', 1:62,500); aerial photographs taken in 1941.
1959 Map: Palm Desert, Calif. (15', 1:62,500); aerial photographs taken in 1954, field-checked in 1957 and 1959.
1979 Map: Santa Ana, Calif. (1:250,000); 1959 edition revised.
1980 Map: La Quinta, Calif. (7.5', 1:24,000); 1959 edition photorevised in 1978.

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/Colton, 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/Colton, 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, U.C. 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
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, with honors; San Diego State University, California.
1993	A.A., Communications, Nassau Community College, Garden City, N.Y.
2001	Archaeological Field School, San Diego State University.
2000	Archaeological Field School, San Diego State University.

Professional Experience

2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, SDSU Foundation.

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/Colton, California.
- Surveys, excavations, mapping, and records searches.

Honors and Awards

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

APPENDIX 2

CORRESPONDENCE WITH NATIVE AMERICAN REPRESENTATIVES*

* A total of 12 local Native American representatives were contacted; a sample letter is included in this report.

CRM TECH

FAX COVER SHEET

1016 E. Cooley Drive
Suite B
Colton, CA 92324
909·824·6400·Tel
909·824·6405·Fax

To:
Native American Heritage Commission

Fax:
(916) 657-5390

From:
Nina Gallardo

Date:
February 19, 2008

Number of pages (including this cover sheet):
2

HARDCOPY:

_____ will follow by mail

_√_ will not follow unless requested

RE: Sacred Land records search

This is to request a Sacred Lands records search

Name of project:
Dune Palms & Hwy 111 NEC;
APN 600-030-018
CRM TECH #2212

Project size:
9.5 acres

Location:
In the City of La Quinta
Riverside County

USGS 7.5' quad sheet data:
La Quinta, Calif.
Section 29, T5S R7E, SBBM

Please call if you need more information or have any questions. Results may be faxed to the number above. I appreciate your assistance in this matter.

Map included

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

February 20, 2008

Nina Gallardo
CRM TECH
1016 E. Cooley Drive, Suite B
Colton, CA 92324

Fax #: 909-824-6405
Number of pages: 3

Re: Proposed Dune palms & Hwy 111 NEC Project (CRM TECH #2212); Riverside County.

Dear Ms. Gallardo:

The Native American Heritage Commission was able to perform a record search of its Sacred Lands File (SLF) for the affected project area. The SLF failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the Sacred Lands File does not guarantee the absence of cultural resources in any 'area of potential effect (APE).'

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the nearest tribes that may have knowledge of cultural resources in the project area. A List of Native American contacts are attached to assist you. The Commission makes no recommendation of a single individual or group over another. It is advisable to contact the person listed; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area (APE).

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Riverside County
February 19, 2008

Cabazon Band of Mission Indians
John A. James, Chairperson
84-245 Indio Springs Parkway Cahuilla
Indio , CA 92203-3499
(760) 342-2593
(760) 347-7880 Fax

Alvino Siva
2034 W. Westward Cahuilla
Banning , CA 92220
(951) 849-3450

Cahuilla Band of Indians
Anthony Madrigal, Jr., Chairperson
P.O. Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
(951) 763-2631

(951) 763-2632 Fax

Torres-Martinez Desert Cahuilla Indians
Ernest Morreo
PO Box 1160 Cahuilla
Thermal , CA 92274
maxtm@aol.com
(760) 397-0300
(760) 397-8146 Fax

Ramona Band of Mission Indians
Joseph Hamilton, vice chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 609 Cahuilla
Hemet , CA 92546
srtribaloffice@aol.com
(951) 658-5311
(951) 658-6733 Fax

Torres-Martinez Desert Cahuilla Indians
Raymond Torres, Chairperson
PO Box 1160 Cahuilla
Thermal , CA 92274
(760) 397-0300
(760) 397-8146 Fax

Augustine Band of Cahuilla Mission Indians
Mary Ann Green, Chairperson
P.O. Box 846 Cahuilla
Coachella , CA 92236
(760) 369-7171
760-369-7161

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 Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed Dune Palms & Hwy 111 NEC Project (CRM TECHH #2212) located in the City of La Quinta; Coachella Valley; Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

February 20, 2008

Judy Stapp, Director of Cultural Affairs
Cabazon Band of Cahuilla Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203-3499

RE: Dune Palms and Highway 111 Northeast Corner
9.5 Acres in Assessor's Parcel No. 600-030-018
In the City of La Quinta, Riverside County
CRM TECH Contract #2212

Dear Ms. Stapp:

As part of a cultural resources study on the property referenced above, I am writing to request your input on potential Native American cultural resources on or near the property. Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value within or near the project area. The lead agency for this project is the City of La Quinta for CEQA-compliance purposes.

The property is located on the northeast corner of Dune Palms Road and State Highway 111, in the City of La Quinta, Riverside County. The accompanying map, based on the USGS La Quinta, Calif., 7.5' quadrangle, depicts the location of the project area in the northeast quarter of Section 29, T5S R7E, SBBM.

Any information, concerns or recommendations regarding cultural resources in the vicinity of the project area may be forwarded to CRM TECH by telephone, e-mail, facsimile or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency. We would also like to clarify that CRM TECH, acting on behalf of Sobel Enterprises, Inc., is not the appropriate entity to initiate government-to-government consultations. Thank you for the time and effort in addressing this important matter.

Respectfully,

Laura Hensley Shaker
CRM TECH

Encl.: Project location map

RAMONA BAND OF CAHUILLA

56310 Highway 371, Suite B
Post Office Box 391670
Anza, California 92539

Tel: (951) 763-4105
Fax: (951) 763-4325
E-mail: admin@ramonatribe.com

"A SOVEREIGN NATION"

February 22, 2008

CRM Tech
C/o Laura Hensley Shaker
1016 E. Cooley Dr., Suites A/B
Colton, CA 92324

Re: 9.5 Acres in APN 600-030-018
La Quinta, Riverside County
CRM Tech #2212

Dear Ms. Hensley Shaker:

The Ramona Band of Cahuilla Indians is in receipt of a notice regarding the above proposed project and request to consult

While the proposed project is not within the Reservation boundaries, the project site lies within the traditional territory of the Cahuilla People, and the Ramona Band of Cahuilla Indians is concerned about the protection of unique and irreplaceable cultural resources, such as Cahuilla village and burial sites and archaeological items that may be displaced by ground-disturbing work associated with any project within the aboriginal homelands of the Cahuilla people.

The Ramona Band of Cahuilla Indians is also concerned about the proper and lawful treatment of any cultural or ceremonial items, Native American human remains, or sacred items which may be discovered during planning and/or construction of the project.

At this time, the Ramona Band of Cahuilla Indians can not provide any additional information regarding cultural resources within the proposed project area. However, we reserve the right to review the cultural resource report for the proposed project and provide comments regarding any concerns we may have. Please forward a copy of the cultural resources report to the address listed above.

In addition, as it appears that the proposed project area is within an area of high cultural resource sensitivity, the Ramona Band of Cahuilla Indians requests a formal consultation with the lead agency to discuss possible impacts to the area and appropriate mitigation measures.

The Ramona Band of Cahuilla Indians appreciates the opportunity to consult regarding the proposed project, and we look forward to working with the County of Riverside to protect and preserve the invaluable resources of the Cahuilla people.

Please feel free to contact me at the address above or via telephone at (951)941-4943 or (951)763-4105.

Sincerely,

John Gomez, Jr.
Cultural Resources
Ramona Band of Cahuilla Indians

February 27, 2008

Laura Hensley Shaker
CRM TECH
1016 E. Cooley Drive, Suite B
Colton, CA 92324

Re.: Dune Palms and Highway 111 Northeast Corner
9.5 Acres in Assessor's Parcel No. 600-030-018
In the City of La Quinta, Riverside County
CRM TECH Contract #2212

Dear Ms. Shaker:

Thank you for contacting the Cabazon Band of Mission Indians regarding the above referenced project.

The project is located outside of Cabazon Reservation lands. The Tribe has no specific archival information on the above referenced site indicating cultural resources within or near the property or that it may be a Native American sacred/religious site. The Cabazon Band recommends that there be a qualified archaeologist on site during ground disturbing activities and grading because of possible unknown cultural sites in the project area. Should human remains be encountered, the archaeologist shall notify the County Coroner. If the remains are determined to be Native American, the Native American Heritage Commission shall be contacted to determine the Most Likely Descendent.

We look forward to continued collaboration in the preservation of cultural resources or areas of traditional cultural importance. Thank you for the opportunity to comment on the project.

Sincerely,

Judy Stapp
Director of Cultural Affairs
Cabazon Band of Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203
(760) 342-2593, ext. 84741
Fax (760) 347-7880
E-mail: jstapp@cabazonindians-nsn.gov

APPENDIX 3:

ARCHAEOLOGICAL SITE RECORD
33-16950 (CA-RIV-8835)

(Confidential)

FINAL CULTURAL RESOURCES REPORT

ARCHAEOLOGICAL TESTING AND EVALUATION OF SITE CA-RIV-8835 (33-16950)

Assessor's Parcel No. 600-030-018
City of La Quinta, Riverside County, California

For Submittal to:

Community Development Department
City of La Quinta
78495 Calle Tampico
La Quinta, CA 92253

Prepared for:

Brad Sobel
Sobel Enterprises
420 South Beverly Drive, Suite 200
Beverly Hills, CA 90212

Prepared by:

CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

July 17, 2008
CRM TECH Contract No. 2235

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Authors: John J. Eddy, Archaeologist
Mariam Dahdul, Archaeologist
Harry M. Quinn, Archaeologist
Matthew Wetherbee, Faunal Analyst

Consulting Firm: CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: July 17, 2008

Title: Final Cultural Resources Report: Archaeological Testing and Evaluation of Site CA-RIV-8835 (33-16950), Assessor's Parcel No. 600-030-018, City of La Quinta, Riverside County, California

For Submittal to: Community Development Department
City of La Quinta
78495 Calle Tampico
La Quinta, CA 92253
(760) 777-7000

Prepared for: Brad Sobel
Sobel Enterprises, Inc.
420 South Beverly Drive, Suite 200
Beverly Hills, CA 90212
(310) 277-4697

USGS Quadrangle: La Quinta, Calif., 7.5' quadrangle (Section 29, T5S R7E, San Bernardino Base Meridian)

Keywords: City of La Quinta, Riverside County; archaeological testing and evaluation; Site CA-RIV-8835/33-16950 (prehistoric site with daub/fire-affected clay, fire-affected rock, potsherds, lithics, shell, groundstone, faunal, and cremation remains); "historical resource" due to Native American traditional cultural value; mitigation completed; archaeological monitoring recommended

MANAGEMENT SUMMARY

Between April and July 2008, at the request of Sobel Enterprises, Inc., CRM TECH performed an archaeological testing and evaluation program on a previously recorded prehistoric—i.e., Native American—archaeological site in the City of La Quinta, Riverside County, California. The study is a part of the environmental review process for a proposed commercial development project on the property that encompasses the site, Assessor's Parcel Number 600-030-018. The parcel is located on the northeast corner of Dune Palms Road and Highway 111, in the northeast quarter of Section 29, T5S R7E, San Bernardino Base Meridian. The City of La Quinta, as Lead Agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA) and the City's Historic Preservation Ordinance.

The purpose of the study is to assist the City of La Quinta in assessing the significance of Site CA-RIV-8835 (33-16950) and determining whether the site meets the official definition of a "historical resource," as provided in CEQA. In order to accomplish these objectives, CRM TECH completed a series of archaeological field procedures, including a re-survey of the site area, surface collection of artifacts, and the excavation of 8 test units, 23 shovel test pits, 28 recovery units, 2 backhoe trenches, and 3 backhoe test pits, followed by laboratory analysis of the artifacts recovered through the field procedures.

The field procedures conducted at Site CA-RIV-8835 yielded a limited quantity of artifacts, including daub/fire-affected clay, ceramic sherds, shell, fire-affected rock, groundstone, chipped-stone debitage, and small fragments of animal bone, but also encountered calcined bone fragments associated with a human cremation. The cremated human remains retain a high degree of Native American traditional cultural value, and as such the portion of the site containing the cremation remains is determined to meet CEQA's definition of a "historical resource."

Conversely, the field results suggest that Site CA-RIV-8835 in general has a very limited ability to provide important new information for the study of prehistory in the Whitewater River Delta/Dune Complex and surrounding region, in light of the low quantity of formal artifacts it yielded, the absence of dense cultural midden, and the relative homogeneity of the material assemblage. The analysis of the artifacts, similarly, did not yield any new or important information regarding the prehistory of the area. Therefore, the site as a whole does not appear to qualify as a "historical resource."

Since the cremation feature at Site CA-RIV-8835 constitutes a "historical resource," CEQA and associated regulations mandate that project effects to that portion of the site be avoided or mitigated to a level less than significant. Through the present study, however, the cremated human remains have been adequately recovered from the site, which serves as partial mitigation of the project's potential effects. The mitigation process will be completed upon the repatriation of the remains. At this time, CRM TECH is coordinating with Sobel Enterprises, Inc., and the Torres Martinez Desert Cahuilla Indians, the designated the Most Likely Descendent, to conclude the final repatriation.

Based on the research results summarized above, CRM TECH concludes that no further archaeological studies will be necessary at Site CA-RIV-8835. Accordingly, CRM TECH recommends to the City of La Quinta a finding that the proposed project's potential effects on the "historical resource" have been mitigated to a level less than significant as a result of this study. However, due to the project area's demonstrated sensitivity for additional subsurface cultural deposits, archaeological monitoring is recommended during all grading and other earth-moving activities within the project boundaries.

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PART I

BACKGROUND

INTRODUCTION

Between April and July 2008, at the request of Sobel Enterprises, Inc., CRM TECH performed an archaeological testing and evaluation program on a previously recorded prehistoric—i.e., Native American—archaeological site in the City of La Quinta, Riverside County, California (Fig. 1). The study is a part of the environmental review process for a proposed commercial development project on the property that encompasses the site, Assessor's Parcel Number 600-030-018. The parcel is located on the northeast corner of Dune Palms Road and Highway 111, in the northeast quarter of Section 29, T5S R7E, San Bernardino Base Meridian (Fig. 2). The City of La Quinta, as Lead Agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.) and the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code).

CRM TECH performed the present study to assist the City of La Quinta in assessing the significance of Site CA-RIV-8835 (33-16950) and determining whether the site meets the official definition of a "historical resource," as provided in CEQA. In order to accomplish these objectives, CRM TECH completed a series of archaeological field procedures, including a re-survey of the site area, surface collection of artifacts, and the excavation of 8 test units, 23 shovel test pits, 28 recovery units, 2 backhoe trenches, and 3 backhoe test pits, followed by laboratory analysis of all artifacts and ecofacts recovered. The following report is a complete account of the methods, results, and final conclusion of the study.

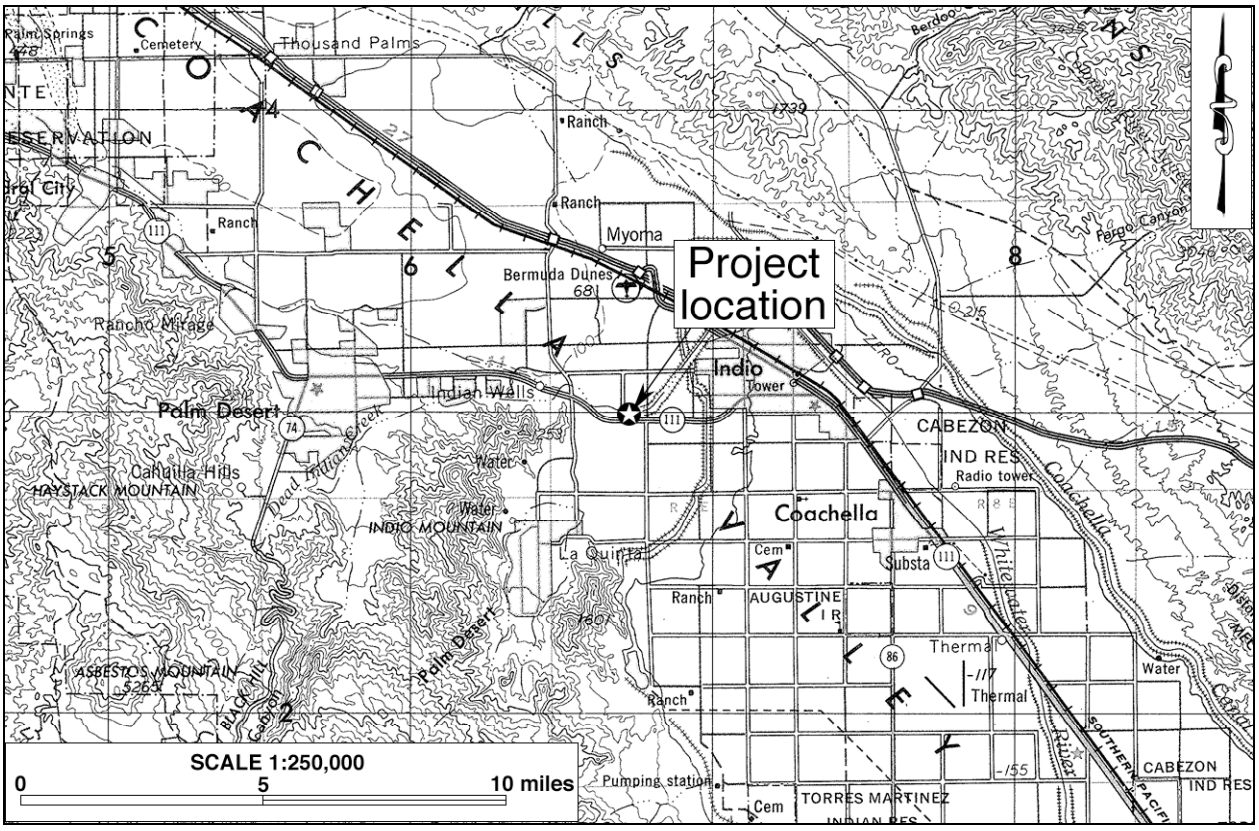

Figure 1. Project vicinity. (Based on USGS Santa Ana, Calif., 1:250,000 quadrangle [USGS 1979])

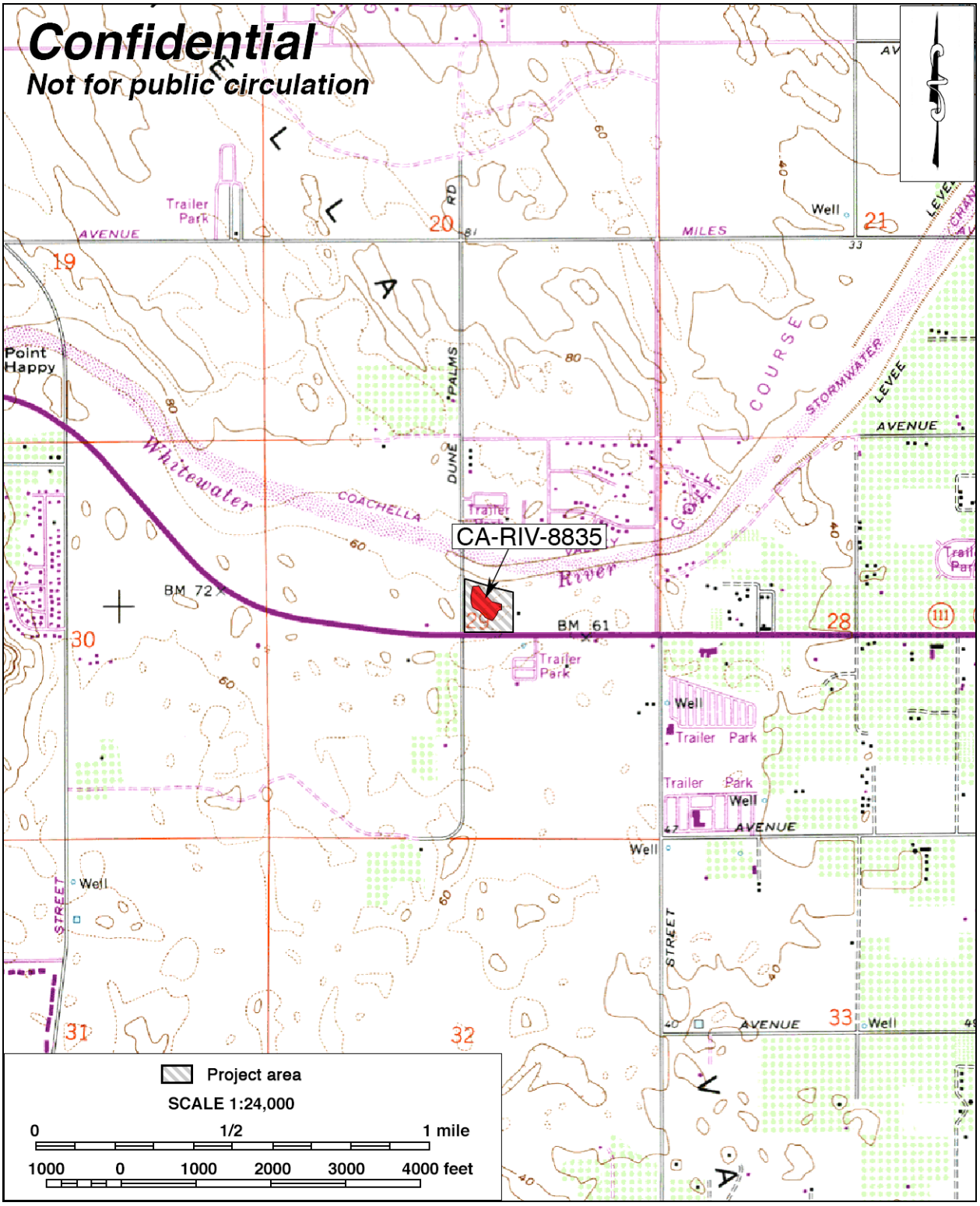

Figure 2. Location of Site CA-RIV-8835 within the project boundaries. (Based on USGS La Quinta, Calif., 1:24,000 quadrangle [USGS 1980])

PROJECT BACKGROUND

In February and March 2008, CRM TECH conducted a Phase I historical/archaeological resources survey on the current project area, which resulted in the identification of one archaeological site, CA-RIV-8835, within the boundaries of the subject property (Encarnación and Hogan 2008). The site was prehistoric in nature, consisting of a scatter of daub, some of which has been burned, ceramic sherds, and fire-affected rock (FAR). Within the site boundaries there were numerous areas with dense concentrations of daub, including several that also contained potsherds and FAR. However, no obvious or definite evidence of features, such as fire pits or house rings, was found.

Numerous archaeological sites have been found in the immediate vicinity of CA-RIV-8835, some containing rich subsurface cultural deposits, attesting to the archaeological sensitivity of the Whitewater River Delta/Dune Complex. These sites mostly reflect Late Prehistoric settlement and subsistence activities along or near the last shoreline of ancient Lake Cahuilla, but also include evidence of dense occupation in the delta/dune complex where sloughs, seeps, and marshes provided habitat for birds, game, and a variety of wetland plants. In addition, several of the sites produced much older cultural remains associated with the Late Archaic Period, including a human cremation radiocarbon-dated to 2,500 years before present (ybp), one of the oldest human cremations known in the greater southern California region and the Far Southwest. Archaic Period sites, which are extremely rare in the western Colorado Desert and thus extremely significant, are often buried deep under sand and mesquite dunes.

The vertical extent of Site CA-RIV-8835 and its potential for containing intact subsurface artifact deposits and features could not be ascertained on the basis of the Phase I survey. Therefore, a testing and evaluation program was recommended to assess the historical significance of the site. In April 2008, CRM TECH completed the field procedures for the testing program at the site. Subsequently, the previously recorded artifact concentrations were reorganized and the site boundaries expanded to include additional artifacts found during the fieldwork, such as daub/fire-affected clay (FAC), groundstone, shell, FAR, and ceramic sherds. The following report presents the results of the field procedures at Site CA-RIV-8835 and the laboratory analysis of artifacts and ecofacts.

SETTING

REGIONAL SETTING

The City of La Quinta is situated in the heart of the Coachella Valley, a northwest-southeast trending desert valley that constitutes the northwestern end of the Colorado Desert geomorphic province. The province is bounded on the southwest by the Peninsular Ranges province, on the north by the eastern Transverse Ranges province, and on the northeast by the southern portion of the Mojave Desert province (Jenkins 1980:40-41). Dictated by this geographic setting, the climate and environment of the 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 natural landscape around Site CA-RIV-8835 has undergone extensive alterations as a result of modern earth-moving activities. It appears that a pair of undulating sand dunes were stripped of vegetation and leveled by heavy machinery, causing the dispersal of artifacts and ecofacts throughout the site. The eastern dune was once populated by a dense thicket of mesquite, while the western dune apparently contained various types of low lying brush and plants well adapted to the alkaline soils. Situated between the two dunes is a shallow basin containing a denser concentration of artifacts, possibly representing an old inter-dune deposit or recent dune blowout. Along the southern boundary of the site, at the merger of the western and eastern dunes, a couple of stands of mesquite remain, apparently unscathed by modern developments.

Surface elevations within the site range from approximately 60 feet above mean sea level at the tops of the sand dunes to approximately 55 feet in the shallow basin. This would place the site approximately 18-13 feet above the elevation of the last known shoreline of Lake Cahuilla, located along today's 42-foot contour line. The surface soil at the site is composed of recent eolian dune sand deposits with no apparent gravel, rock, or cobble constituent. Vegetation is consistent with the Creosote Bush Scrub plant community (Munz 1968) and includes creosote, mesquite, and low-lying weeds and grasses (Fig. 3).

In past centuries, Native life in the Coachella Valley was greatly influenced by Lake Cahuilla's lacustral intervals (i.e., the inundation and subsequent desiccation). Archaeologists agree that Lake Cahuilla filled the Salton Basin several times between A.D. 900 and 1700, last receding sometime around A.D. 1680. Over the past decade, evidence of an older Late Archaic Period high stand of Lake Cahuilla has grown exponentially as a number of archaeological sites dating to this allusive period of prehistory were discovered in the vicinity (see Love and Dahdul 2002; Laylander and Schaefer 2007). Archaeological

Figure 3. Overview of the current natural setting of the project area. (Photo taken on February 14, 2008; view of the southeast)

and geological data indicate the presence of the lake sometime between 500 B.C. and A.D. 200 (Wilke 1976; Waters 1982; Love et al. 1996; Love and Dahdul 2002), coinciding with an increase in population and a shift toward more sedentary settlement strategies (Eddy 2008).

The area surrounding the site provided a favorable setting for human habitation. Lakeshore resources such as aquatic plants, migratory birds, fish, and shellfish were available within one mile of Site CA-RIV-8835, and locally available terrestrial and wetland resources including mesquite and other seeds, small mammals, and fresh water were procured from the mesquite dunes, sloughs, and marshes that formed the Whitewater River Delta/Dune Complex.

GEOLOGIC SETTING

Site CA-RIV-8835 is located in the old Whitewater River/Dune Complex, adjacent to the south bank of the present-day Whitewater Flood Control Channel, which appears to be in roughly the some location as the original Whitewater River channel. It is near the terminus of the sand dune high, or ridge, that extends from the San Gorgonio Pass area to the Point Happy area (Quinn 1999) and can be seen today as a an elevated ridge separating the low regions along the north and south sides of the Coachella Valley. The river/dune complex exists along the Whitewater River from Point Happy to an area just east of present-day Jefferson Street. When Lake Cahuilla filled the Salton basin and the Whitewater River flowed, a delta formed in the area that prograded into the lake.

As noted above, the site lies well above the high water mark of the last recorded high stand of Lake Cahuilla. However, geoarchaeological research has shown the site location to be much closer to the shoreline of one or more of the older and higher lake stands. Just to the southwest of Site CA-RIV-8835, grading activities for other developments exposed a 1-meter-thick sequence of ponded sediments that were elevated approximately 64 to 65 feet above mean sea level, based on measurements taken from grading stakes near the cut. These silts, silty clays, and clays closely resemble the ponded sediments exposed during grading activities near the former lakeshore at the nearby Rancho La Quinta project area along the 42-foot elevation line (Love et al. 2000a).

The surface geology of the site area as mapped by Rogers (1965) and Dibblee (1954:Plate 2) supports the model of the Whitewater River Delta/Dune complex. The site contains recent sand dune deposits and alluvial sediments consisting of fanglomerate, gravel, sand, and lacustrine clays likely deposited when the Whitewater River overflowed its banks and flooded the delta region. In addition, soils have developed on the surface of the site and in the vicinity. Knecht (1980:Map Sheets 11, 16, 22, 23) mapped the surface soils on the site as MaD, which belong to the Myoma Series and form on dunes and alluvial fans in areas subject to wind activity, and a small amount of CpA, or Coachella Series soils that form on alluvial fan and flood plain areas of the Coachella Valley.

CULTURAL SETTING

Prehistoric Context

In the history of the Americas, the term "Prehistoric Period" refers to the time prior to the arrival of non-Indians, when native lifeways and traditions in the region remained

relatively intact and viable. In the northwestern Colorado Desert, foreign influences profoundly changed native lifeways during the late 1700s, signifying the beginning of the Historic Period. Straddled between prehistoric and historic periods is the Protohistoric Peiod, a time when indirect affects of non-local colonization and European exploration may have impacted native lifeways in southern California.

Numerous chronological sequences have been developed to help understand cultural adaptations by Native peoples in the desert areas (Fig. 4). According to one scheme, the Prehistoric Period in the northwestern Colorado Desert is further divided into the late Prehistoric Period, marked by the introduction of ceramic technology from lower Colorado River cultures around A.D. 1000, and the Archaic Period, which in turn is subdivided into Early and Late Phases.

Very little is known about the Archaic Period in the northwestern Colorado Desert, although recent archaeological investigations in the Coachella Valley have revealed new information regarding Late Archaic, sometimes referred to as "preceramic," culture. Other important cultural changes in prehistoric times include the movement of Uto-Aztecan/ Takic speakers into the Colorado Desert, perhaps as early as 1000 B.C., human adaptive strategies to the lucustral cycle of Lake Cahuilla, the introduction of the bow and arrow, probably around A.D. 500, and the change from burial practices to cremations, perhaps around 500 B.C.

The most recent cultural sequence proposed for the Colorado Desert, published more than a decade ago (Schaefer 1994), was based on numerous archaeological studies in the region. The earliest time period identified is the Paleoindian (ca. 8,000 to 10,000-12,000 years ago), when "small, mobile bands" of hunters and gatherers, who relied on a variety of small and large game animals as well as wild plants for subsistence, roamed the region (*ibid*.:63). These small groups settled "on mesas and terraces overlooking larger washes" (*ibid*.:64). The artifact assemblage of that period typically consists of very simple stone tools, "cleared circles, rock rings, [and] some geoglyph types" (*ibid*.).

The Early Archaic Period follows and dates to ca. 8,000 to 4,000 years ago. It appears that a decrease in population density occurred at this time and that the indigenous groups of the area relied more on foraging than hunting. Very few archaeological sites have been identified to this time period. The ensuing Late Archaic Period, ca. 4,000 to 1,500 years ago, is characterized by continued low population densities and groups of flexible sizes that settled near available seasonal food resources and relied on opportunistic hunting of game animals (Schaefer 1994). Groundstone artifacts for food processing were prominent during this time period.

The most recent period in Schaefer's scheme, the Late Prehistoric, dates from ca. 1,500 years ago to the time of the Spanish missions, and saw the continuation of the seasonal settlement pattern. Peoples of the Late Prehistoric Period were associated with the Patayan cultural pattern and relied more heavily on the availability of seasonal "wild plants and animal resources" (Schaefer 1994:66). It was during this period that brown and buff ware ceramics were introduced into the region, while the shoreline of Holocene Lake Cahuilla was heavily populated. During the lake's desiccation, according to Schaefer (*ibid*.:66), the Native people moved away from its receding shoreline to the nearby rivers, streams, and mountains.

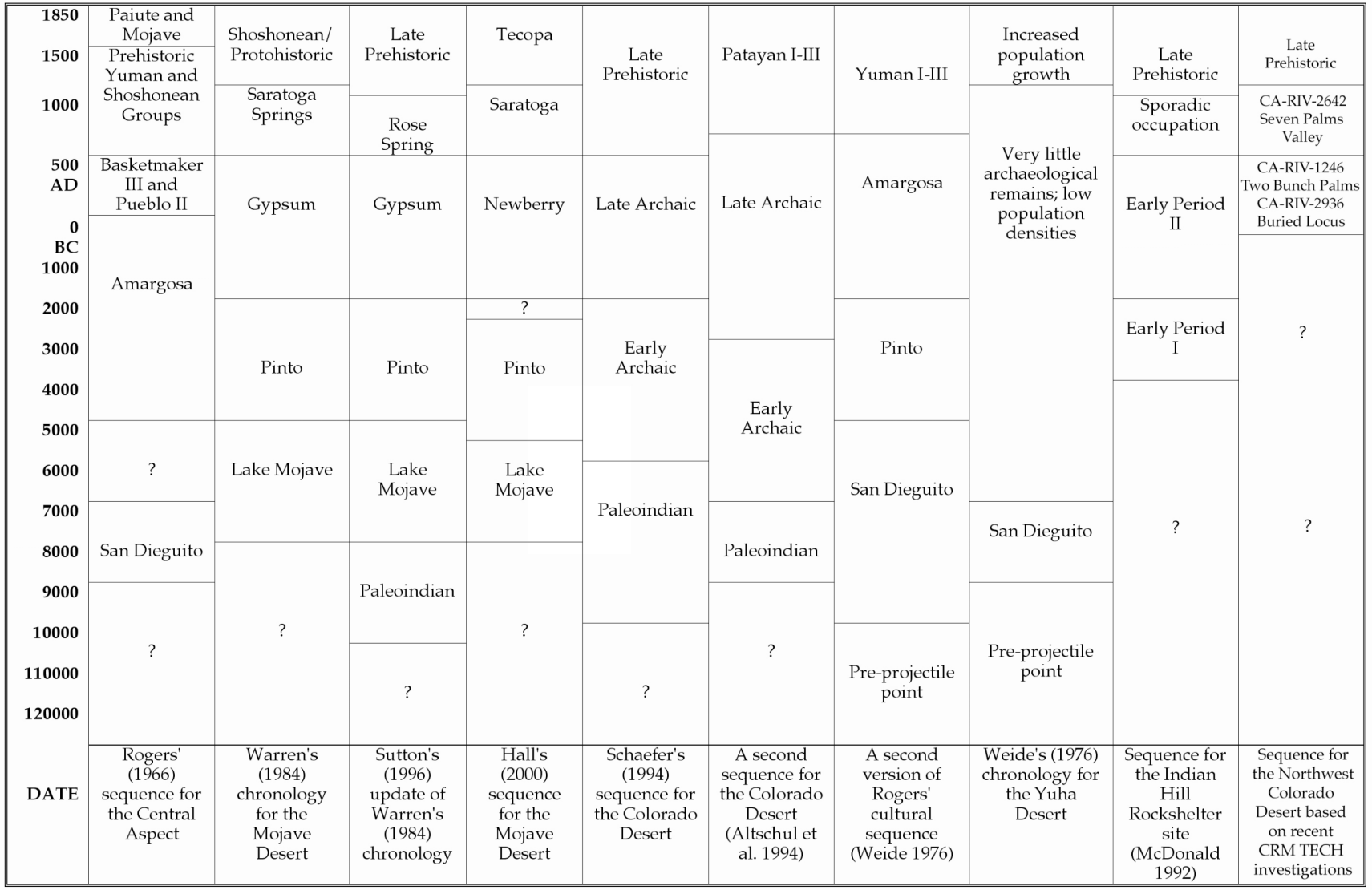

Figure 4. Prehistoric chronological sequences for California desert.

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 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 that fulfilled special ceremonial obligations. Members of clans in one moiety had to marry into clans from the other moiety and many Cahuilla ceremonies and rituals required the participation of both moieties. 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, however, 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.

RESEARCH DESIGN

OVERVIEW

An archaeological investigation must be guided by a thoughtful research design in order to contribute new insights to current knowledge and theory within the discipline of anthropology. The guidelines set forth for the recovery of scientific data will yield new clues to past lifeways and help support or refute current theories that are embroiled in debates. A carefully planned design will also contribute to the advancement of the field by not only building on previous work but also laying the groundwork for future studies.

A standard set of research domains can be applied to almost any archaeological investigation; however, the specifics of each case require refinement and focus of the general research questions. General domains that guide an investigation include:

(1) site formation processes: reconstruction of natural and cultural depositional and post-depositional processes;
(2) chronology: the age and duration of site occupation;
(3) subsistence: the daily diet and range of natural resources that were hunted, collected, and consumed;
(4) settlement patterns: whether the site was a temporary or permanent, large or small settlement;

(5) social interaction and exchange networks: the material evidence for exchange or interface with outside groups based on the presence or absence, frequency, and spatial distribution of non-local materials and artifacts in the archaeological record; and
(6) ethnicity or cultural affiliation: the tribal or linguistic affiliation of the people who occupied the land at the time.

These six general questions, which are common to site investigations everywhere, generate more specific inquiries and focused lines of research when applied to the area north of the northern shoreline of ancient Lake Cahuilla and near the Whitewater River Delta Dune/ Complex.

SITE FORMATION PROCESSES

One of the main goals of the current investigation is to delineate the vertical and horizontal extent of Site CA-RIV-8835 while reconstructing site geomorphology and identifying natural and cultural post-depositional processes. A specific concern in dune-sand environments like that of CA-RIV-8835 is the identification of "blow-out" episodes and dune-sand deflation often resulting from heavy winds, rain, and fire, which may cause artifacts, eocfacts, and other materials deposited at different levels within the dune to accumulate on the newly deflated surface.

Deflated deposits can be mistaken for intact subsurface cultural deposits if they are reburied. Rodent burrowing can also result in the vertical movement of cultural material from its original depositional context, while looting or other modern disturbances such as off-road vehicle activities, grubbing, trenching, or grading can have a detrimental effect on depositional integrity, making it difficult to reconstruct a site's depositional history and identify the type and time frame of cultural activities. Mapping the distribution of surface artifacts, conducting subsurface excavations, and studying site stratigraphy are useful techniques toward determining site formation processes.

CHRONOLOGY

The age of Native settlements near the north shore of ancient Lake Cahuilla is correlated to the history of the lake itself. The lake has come and gone several times during the last millennium. Until recently, the last high stand of the lake was thought to have occurred in the 1500s, with its final recession leaving the valley dry by around 1600 (Schaefer 1994:67). New information gathered during the last decade reveals yet another full in-filling of the lake in the 1600s, with a high stand at the 42-foot elevation around A.D. 1650-1680 (Laylander 1997:68, 96; Rockwell 1995; 1997). Can Site CA-RIV-8835, located in the Whitewater River Delta/Dune Complex, confirm the later date and add support to this recently revised chronology?

Besides the question of settlement during the most recent high stand, there are many unanswered questions regarding older time periods, including the Late Archaic. During the lacustral cycle, it is assumed that Native peoples took advantage of the rich aquatic plant and animal resources found along the lakeshore and within the sloughs, marches, and seeps that formed near the Whitewater River Delta. Are there records of these earlier occupations in the form of older, buried archaeological deposits?

SUBSISTENCE

The earliest major study of Cahuilla diet based on the archaeological record is Wilke's (1976) doctoral dissertation on animal and plant remains extracted from ancient Indian coprolites (i.e., fossilized fecal remains) from Late Prehistoric sites in the vicinity. Since then dozens of archaeological studies have analyzed animal bone remains from numerous sites in the La Quinta area, focusing on prehistoric exploitation of lacustral resources, particularly in the form of freshwater fish, water fowl, and small land mammals.

Current research is no longer asking whether or not the Native occupants exploited the lake's resources—it is now well established that they were. Today it is more a question of refinement of details. For Site CA-RIV-8835, interesting questions include what percentages of which animals and plants constituted the diet of prehistoric occupants in the Whitewater River Delta/Dune Complex, and whether people were more dependent upon lacustral lakeshore and delta wetland resources or terrestrial resources. Is there any information stored in the faunal remains that may indicate how game was procured, processed, and prepared?

For sites along the Whitewater River, such as CA-RIV-8835, additional questions regarding the use of riverine/riparian resources in the delta is of growing interest. Archaeological evidence from several sites in the region indicate people may have relied on riparian and marsh/slough/seep wetland resources in the delta when ancient Lake Cahuilla was absent or receding. Were different resources available along the river and in the delta, and if so, how important were these resources to the prehistoric diet, and what effect did the resources have on other aspects of culture, specifically settlement strategies? Did prehistoric people perhaps rely more heavily on resources in the delta region than on the lakeshore, in contradiction to Wilke's (1976) and Schaefer's (1994) models?

SETTLEMENT PATTERNS

The question of permanent "village" settlement vs. temporary occupation on the north shore of Lake Cahuilla has been debated since the 1970s, as reviewed by Schaefer (1994:68 et seq.). Recent large-scale excavations and data recovery programs tend to support the temporary camp hypothesis. Evidence of temporary camps come from finds such as light surface scatters of ceramics and FAR with little or no midden deposit, no multiple cremations or evidence of cemeteries, no features or site "furniture" suggesting permanence, and a dearth of ceremonial objects that would be expected at villages where large gatherings took place for ritual purposes (Love et al. 1996). A re-analysis of Wilke's original data, using statistical modeling, also supports the temporary camp hypothesis (Sutton 1998).

If prehistoric people were occupying the ancient shoreline on a temporary basis, did they have permanent or long-term village site to return to? If so, where were these settlements located and do they change over time? This site, along the natural course of the Whitewater River and not far from where the river emptied into the ancient lake, provides a textbook opportunity to discuss evidence of permanent or long-term settlement in the Whitewater River Delta/Dune Complex.

SOCIAL INTERACTION AND EXCHANGE NETWORKS

Evidence of social interaction and exchange networks is usually found in the archaeological record in the form of non-local raw materials and artifacts, or artifacts of distinct regional styles, such as Hohokam pottery, originating some distance away. Stone materials are the most commonly cited evidence for such external contacts. Shell beads are another sure sign of trade, often brought to the Coachella Valley from the Pacific Coast, presumably by Mojave long-distance traders who had a tradition of passing frequently between the Colorado River and the western seashore, or acquired from the neighboring Serrano and Gabrielino as a result of down-the-line exchange. However, one must remember that members of the group could have used perishable exotic goods that do not survive in the archaeological record, and that would be undetectable by present-day research.

Site CA-RIV-8835 is located near the ancient Cocomaricopa Trail, which connected Southwestern cultures and the Pacific Coast into a regional exchange network. Did any of the artifacts recovered during the current study enter the region through such exchange networks, or had members of the group utilizing the site traveled to far-away places to procure raw materials? Careful identification of stone types and ceramic paste composition can partially address this question by identifying the potential source locations where the material may have originated.

ETHNICITY OR CULTURAL AFFILIATION

Although archaeologists continually try to connect ethnicity to the material record, their efforts for the most part remain frustrated. Peoples of different linguistic and ethnic heritage occupying similar environmental settings often shared similar material culture associated with everyday subsistence activities, such as food processing equipment, storage vessels, and hunting gear. More generally, it is assumed that the people who lived at a site during historic times were the same ethnic group that occupied it in prehisory. Site CA-RIV-8835 lies in the heart of traditional Desert Cahuilla territory, but Mountain or Pass Cahuilla, Serrano, Cupeño, Luiseño, or even Yuman and Chemehuevi could also have visited the area to procure resources, engage in trade, or participate in some ritual, such as a cremation or mourning ceremony. Is it possible to distinguish ethnicity, or the presence of small enclaves, within the ethnohistoric territory of the Desert Cahuilla?

There is, of course, also the question of older sites dating to the Archaic Period. Historical linguists and students of cultural change and migration would argue that new cultures entered the Coachella Valley some 2,000 to 2,500 years ago, perhaps moving out of the area during the Late Archaic/Late Prehistoric transition, ca. A.D. 600-800. Would the customs, values, and material culture of these early inhabitants be the same as those peoples living in the region during Late Prehistoric, Protohistoric, or Historic Period? Results from the current study could provide some clues as to the cultural make-up of the people occupying the site and whether those traits are similar to those practiced by later Native American groups.

CLAY USE

In addition to the generalized research questions discussed above, prehistoric sites in specific locales sometimes offer archaeologists an opportunity to investigate site-specific or

local research questions. Such is the case with Site CA-RIV-8835, which is dominated by hardened and partially fired silty clay pieces that are ubiquitous in prehistoric archaeological sites in the Coachella Valley but poorly understood. From site to site, varying in density and type, hardened and often fired clay, apparently unshaped by human hands, is found scattered among the pottery sherds, chipped stone, and FAR typical of habitation sites.

Possible explanations for the presence of the clay at a site include its use as daub, which would line the walls of small structures like granaries; its representation of the remnants of clay floors; its role in ceramic production, suggesting perhaps the stockpiling and discarding of clay or accumulation of slag and waste; and it being a by-product of cooking, especially the baking of fish and small mammals, which may have been wrapped in clay before being tossed in a fire. A detailed analysis of multiple clay samples may further this ongoing research in an attempt to identify diagnostic attributes that could help establish one of these hypothesis.

SUMMARY

The foregoing research design will guide the archaeological investigations at Site CA-RIV-8835. If explorations of the site can add new or useful information to one or more of these important research domains, then the archaeological efforts can be deemed fruitful, and the current understanding of past lifeways will have been improved.

PART II

METHODS AND PROCEDURES

ARCHAEOLOGICAL FIELDWORK

Field procedures for the testing program were completed on April 14-17 and 23-24, 2008, under the guidance of principal investigator Michael Hogan and field directors Daniel Ballester and John Eddy (see App. 1 for qualifications). Field crew members included CRM TECH archaeologists Lisa Hunt, Thomas Melzer, Andrea Stella, and Robert Porter. A variety of recovery methods were used to collect data from Site CA-RIV-8835, including a systematic re-survey, surface collection, shovel test pits (STPs), test units, backhoe trenching, backhoe test pits, and recovery units.

RE-SURVEY, MAPPING, AND SURFACE COLLECTION

The site sketch map drawn for Site CA-RIV-8835 during the initial survey of the project area (Encarnación and Hogan 2008) was used to locate the site datum and artifact concentrations at the commencement of the testing program. An intensive-level re-survey of the site and the surrounding area was then conducted. When artifacts were encountered, they were marked with pin flags and mapped onto the existing site sketch map, and larger-scale sketch maps were produced for the artifact concentrations. Subdatums were established, if necessary, near the center of each concentration to facilitate mapping. The information gleaned from the re-survey was used to delineate new site and concentration boundaries, if necessary, and to assist in the selective placement of test units, STPs, and backhoe trenches and test pits (see below).

Surface artifacts were plotted onto the sketch maps using a handheld compass, tape measure, and/or range finder prior to collection. A surface collection of artifacts in each concentration was completed after the concentrations were divided into quadrants (i.e., NW, NE, SW, SE) measured from the concentration subdatum. In addition, a general surface collection of scattered artifacts over the site area was also completed after the site was divided into quadrants from the main datum. As artifacts were collected, they were put into bags and labeled with pertinent provenience information, including project number, site number, artifact type, location, date, and initials of the collector. The bags were later taken to the CRM TECH laboratory for sorting, counting, and cataloguing.

TEST UNITS

Hand-excavated test units were employed during the testing program to explore the subsurface deposition of the site, identify archaeological features, and collect samples of subsurface artifacts. The standard 1x1-m or 1x2-m test units were excavated in 10-cm (approx. 4-in) levels. All material was dry-screened through 1/8-in hardware mesh, and cultural remains recovered from each level were bagged, labeled, and recorded onto a unit level record. Sidewall profiles were sketched for each of the units where stratigraphic layers and soil horizons were identified (Fig. 5). A total of eight test units (Units 1-8) were excavated at the site.

SHOVEL TEST PITS

Shovel test pits (STPs) are used to probe the subsurface of the site for evidence of artifact deposits, cultural midden layers, or features, and to help determine the placement of future data recovery units, if needed. In addition, STPs were also used to identify the horizontal

Figure 5. An example of a deep test unit showing soil stratigraphy (east sidewall of Unit 1). (Photo taken on April 14, 2008)

extent of potential subsurface deposits. For this study, the STPs were 50x50-cm square pits excavated in 10-cm levels. A total of 23 STPs were excavated at the site, placed at all five artifact concentrations as well as various other locations, including culturally sterile surface soils outside the site boundaries. All material was dry-screened through 1/8-in hardware mesh, and artifacts, ecofacts, and other cultural materials recovered from each level were collected, labeled, and recorded onto a unit level record.

BACKHOE TRENCHES AND PITS

Backhoe trenches and test pits are used to verify the presence or absence of cultural deposits, to look for deep archaeological deposits possibly dating to the Late Archaic Period, and to investigate site formation processes and the evolution of the natural landscape. The trenches were excavated in five-meter segments and measured ten meters in length and approximately two meters in width, whereas the pits were approximately two meters in length and one meter in width. Two trenches and three pits were excavated at Site CA-RIV-8835 in 50-cm (approx. 20-in) levels. Excavated soils were screened through a 1/2-in hardware mesh and all recovered artifacts were bagged and labeled with the appropriate provenience information before proceeding to the next level. Trench and pit sidewall profiles were completed to record geological and archaeological stratigraphy.

RECOVERY UNITS

A total of 27 hand-dug recovery units (Units 9-35) were employed during the archaeological testing program in an area found to contain cremated human remains (see further discussion below). They were clustered around the test unit where the cremation remains were first encountered. Each of them measured 1x1 meter in size and was excavated in 10-cm levels. The purpose of these units was to expose, record, and recover the human remains. All material was dry-screened through 1/8-in hardware mesh, and artifacts, ecofacts, and other cultural materials recovered from each level were bagged, labeled, and recorded onto a unit level record.

LABORATORY ANALYSIS

All artifacts recovered during the fieldwork were taken to the CRM TECH laboratory for cleaning, sorting, counting, and cataloguing. Each artifact was sorted into the basic categories of ceramics, chipped stone, groundstone, faunal (including human remains), fire-affected clay, fire-affected rock, and imported rock. Except for faunal remains, the artifact analysis was performed by CRM TECH archaeologist Harry M. Quinn (see App. 1 for qualifications). The faunal remains were analyzed by CRM TECH contract archaeologist Matthew Wetherbee (see App. 1 for qualifications). The following sections outline the methods and procedures followed during the analyses.

CERAMICS

For the purpose of ceramic analysis, all pottery sherds in the artifact assemblage were categorized by paste as either originating from sedimentary or residual clays. Sedimentary clays most often exploited by prehistoric occupants of the western Colorado Desert originated from the Lake Cahuilla beds, produced by the periodic infilling and desiccation cycle of Lake Cahuilla, although alluvial clays from the Whitewater River and the Colorado River were likely also utilized. Pottery produced from these sedimentary sources, commonly referred to as buffware, is typically lighter in color and contains finer-grained inclusions, although coarser-grained temper is possible. Residual clays are generally found in the local mountains, foothills, and small hills surrounding the Coachella Valley and form in-situ through chemical weathering. Pottery produced from residual clays, referred to as brownware, often has thicker walls, is darker in color, and contains heterogeneous mixture of coarse-grained inclusions.

Each sherd was examined using a 10X hand lens to determine clay type and inclusion/temper material, and was typed into functional classes of known pottery ware used in the region such as water jars, storage vessels, cooking pots, bowl, and trays. Classifications were based on sherd portion and thickness, shape, curvature, stain, and inclusions/temper. Cooking pots are distinguishable from other vessels by their thicker walls, coarser-grained paste, more numerous and larger inclusions/temper, burned surfaces, and sometimes stucco coatings. The large and numerous inclusions combined with thick walls would help prevent breakage as the cooking vessel was heated over fires. Storage vessels generally have medium thickness and mid-sized temper, often characterized by wide bodies and narrow mouths. Walls of water vessels are typically thin, to help reduce the weight of transporting the filled vessel, with very fine temper.

LITHICS

The analysis of chipped-stone debitage, groundstone, and rocks included identification of material type, e.g., quartz, granite, and schist. Material classification can yield information about geographical sources for stone used by Native Americans, as well as trading/travel behavior. Chipped stone was also classified on the basis of production stage and technology, i.e., whether the flake was produced by percussion or pressure technology and at what stage of reduction the flake was produced. Larger flakes with original cortex usually represent earlier stages of reduction while much smaller flakes are generally produced in the final stages of tool production or while sharpening used tools.

GROUNDSTONE

Groundstone artifacts were measured, described, and inspected for intensity and patterns of use. A determination was made regarding the type of groundstone represented (e.g., mano, metate, or pestle) and the material of each rock. The purpose of this analysis is the determination of the source of these rocks and how they were used.

ROCK

The fire-affected and unburned rocks were examined using a 10X hand lens. The rocks were washed to remove any dirt covering them and, if needed, fresh surfaces were exposed by breaking them with a rock hammer. The rocks were then categorized as fire-affected or unburned and then separated into different rock types, such as granitic, granitic gneiss, or quartzite. After classification of individual rocks, the resulting data was tabulated and used for comparison in the interpretive analysis.

SHELL

The shell material recovered was first divided into marine and non-marine shell and was then examined using a 10X hand lens. The specimens were also analyzed and identified as to genus and species whenever possible.

FAUNAL

The bone specimens in the assemblage were first sorted into human and non-human categories and then further separated into burned and unburned groups. All specimens were entered into an overall faunal catalogue.

Human Remains

The human bone specimens were counted, weighed, and examined for diagnostic characters such as articular surfaces, foramina, cancellous tissue, and general morphology and bone thickness, as described by Bass (1995), White and Folkens (2005), Ubelaker (1994), and Brothwell (1981).

Next, the specimens were sorted into anatomical regions when applicable, such as parts of the skull, vertebral column, ribs, long bones, tarsals, phalanges, metacarpals, and

metatarsals, and the specimens that could not be identified into elements were labeled "indeterminate" fragments. Many of the pieces were identified as human bone based on the thickness of the cortex, curvature, and surface morphology. The remains were placed in plastic bags, marked with the appropriate provenience information, and analyzed in greater detail in order to determine, if possible, age and sex. In addition, bone color, fragmentation, preservation and rate of cracking and warping resulting from burning were recorded in order to obtaining information on cremation processes and subsequent funerary rituals.

Non-Human Vertebrate Remains

All non-human bone specimens were brushed clean, sorted into categories, and then counted and weighed per category. Each specimen was examined for taxonomically diagnostic characteristics and marks of alteration due to burning, gnawing by rodents or carnivores, mineralization, butchering, and/or other modifications. Taxonomic identification was accomplished by matching elements with specimens in a comparative collections. In addition, osteology manuals and articles were used as needed, including, Casteel (1976), Elbroch (2006), Gilbert (1990), Gilbert et al. (1985), Gobalet (1992), Gobalet et al. (2005), Hillson (1992), Lagler et al. (1977), Olsen (1964; 1968; 1972), Parker (1988), and Wheeler and Jones (1989).

Taxonomic classifications were based on external morphological attributes (gross characteristics) of identifiable specimens. In all cases, specimens were identified to the lowest taxonomic category possible. Unidentifiable bone fragments were placed into one of four categories on the basis of diaphysial (bone-shaft) thickness, curvature, and/or other characteristics. General size categories were used to provide an elementary level of identification for enigmatic mammalian fragments. In general, "small mammal" refers to animals the size of rats or mice, "small-medium" to those the size of jackrabbits or large squirrels, "medium" to those the size of coyotes, bobcats, or domesticated sheep, and "large" to those the size of deer or bighorn sheep. Other recorded characteristics included element side (left, right, or axial) and completeness.

Quantification

The quantitative methods that faunal analysts use to quantify vertebrate faunal remains have been a subject of lengthy debates (Grayson 1981; 1984; Marshall and Pilgram 1993). The two most common quantification methods used today are minimum number of individuals (MNI) and number of identified specimens (NISP), each of which has advantages and limitations. All NISP and MNI calculations are only ideal, never an exact measure of skeletal abundance, and both vary in the identification of body parts at varying levels of fragmentation.

In general, NISP produces a more reliable count of skeletal abundance, because it is less sensitive than MNI to levels of fragmentation and differences between body parts (Marshall and Pilgram 1993). Moreover, "indeterminate" is a defined category under NISP. Because the faunal remains discussed in this report contained a relatively high percentage of fragmented bone and an abundant lack of articulate ends, the present study employed NISP rather than MNI values for species counts.

Faunal Research

Animal bones accumulate in the ground at archaeological sites as a result of both human activity and natural agency. Typically, most deposits fall into one of three major categories: village or home base refuse, including that associated with small temporary camps; kill or processing site residue; and intentional burial (Reitz and Wing 1999:113). Several attributes can assist in distinguishing these types of deposits, such as characteristics of the faunal assemblage and associated contexts.

Cultural bone will often exhibit taphonomic characteristics, such as burning or charring, butchery marks, and breakage patterns, and a high percentage of intentionally crushed bone (Lyman 1994:217-218). In addition, bone fragments found in association with other cultural materials or features (i.e., hearths or roasting pits) are usually considered to be cultural, while unmodified specimens found in the ground and unassociated with cultural features may reflect carnivore scat, raptor pellets, or burrow deaths.

The objective of most zooarchaeological studies is to attempt to gain some insights about the interactions between animals and people in the past, and how these interactions affected people and their environment. One of the most fundamental uses of animals is for nutrition. Nutritional use of plants and animals is the foundation of subsistence and, ultimately, of economic and other cultural institutions (Reitz and Wing 1999:7), but animals can also be a source of important "secondary products" such as clothing, tools, and ornaments.

Additionally, the study of faunal remains can provide important information regarding past diets and dietary emphasis, hunting and butchery practices, cooking methods, animal husbandry, seasonality, past environments, social status, and possibly ceremonial activities. The presence/absence of certain species, especially small mammals, can serve as good indices for inferring past environments at a given site and the season(s) during which it was used.

DAUB/FIRE-AFFECTED CLAY

In the Coachella Valley, sedimentary clays were often used by native peoples to produce ceramics but also served in other functions, including hearth and dwelling construction and the insulation of granaries. Daub/FAC often contain diagnostic attributes such as impressions, vitrification, and inclusions that can be used to identify the types of activities occurring on site. For this study, the daub/FAC pieces were examined using a 10X hand lens and divided into one of three types typically identified at prehistoric sites in the Coachella Valley: a massive, blocky type; a thin bedded, platy type; and an irregular, vuggy type.

PART III

RESULTS AND FINDINGS

ARCHAEOLOGICAL FIELDWORK

Site CA-RIV-8835 was recorded during the Phase I survey as a scatter of prehistoric daub/FAC, ceramic sherds, and FAR. The location of the site and its material assemblage indicate the site may be an extension of previously recorded Site CA-RIV-6190, which was subject to a series of archaeological investigations in 1999-2000. Although the surface manifestations of Site CA-RIV-8835 appeared to be of little archaeological importance, the potential for additional artifacts of unknown quality and quantity in subsurface deposits at or near this location could not be overlooked.

RE-SURVEY, MAPPING, AND SURFACE COLLECTION

The re-survey of Site CA-RIV-8835 found additional surface artifacts, including ceramic sherds, marine and freshwater shell, groundstone, and faunal that were not observed during the previous survey. This resulted in a slight expansion of the boundaries of the site. The surface area of the site now covers approximately 3,690 square meters (Fig 6). The site was subsequently organized into areas of relatively dense artifact concentrations, small artifact clusters, and sparse artifact scatters (Figs. 7-10).

Although sparse scatters of daub/FAC typically characterized the surface deposit at the site, there were several areas where artifacts appeared to cluster in relatively dense concentrations. During the surface collection, a total of 714 artifacts and ecofacts, including prehistoric ceramic sherds, daub/FAC, groundstone fragments, and rocks, were collected from five artifact concentrations and the sparsely scattered areas of the rest of the site. The distribution of artifacts collected from the surface of the site is shown in Table 1.

Table 1. Materials Recovered from the Surface of Site CA-RIV-8835

Surface Collection Area	Ceramics	Daub/FAC	Shell	Faunal	Lithics	Groundstone	Rock
Concentration 1	13	63	1	0	0	1	5
Concentration 2	0	81	0	3	0	0	15
Concentration 3	2	253	0	9	3	0	0
Concentration 4	5	86	0	0	0	0	2
Concentration 5	0	144	0	0	0	2	1
General	5	14	1	0	0	0	5
Total	**25**	**641**	**2**	**12**	**3**	**3**	**28**

TEST UNITS

As mentioned above, a total of eight test units, seven measuring 1x1 meter and one measuring 1x2 meters, were excavated to the depths of 50-100 cm below ground surface (Fig. 6). Approximately 712 artifacts, including daub/FAC, ceramic sherds, lithics, freshwater shell, charcoal, rock, and faunal, including cremated human remains, were recovered from the test units (see Table 2). Most significantly, cremated human remains were discovered in Unit 5, placed where non-diagnostic bone fragments were found on the surface of Concentration 4 during the re-survey.

Sidewall inspection indicates site formation occurred by periodic eolian and fluvial depositional processes bisected by a period of relatively moderate soil development. The

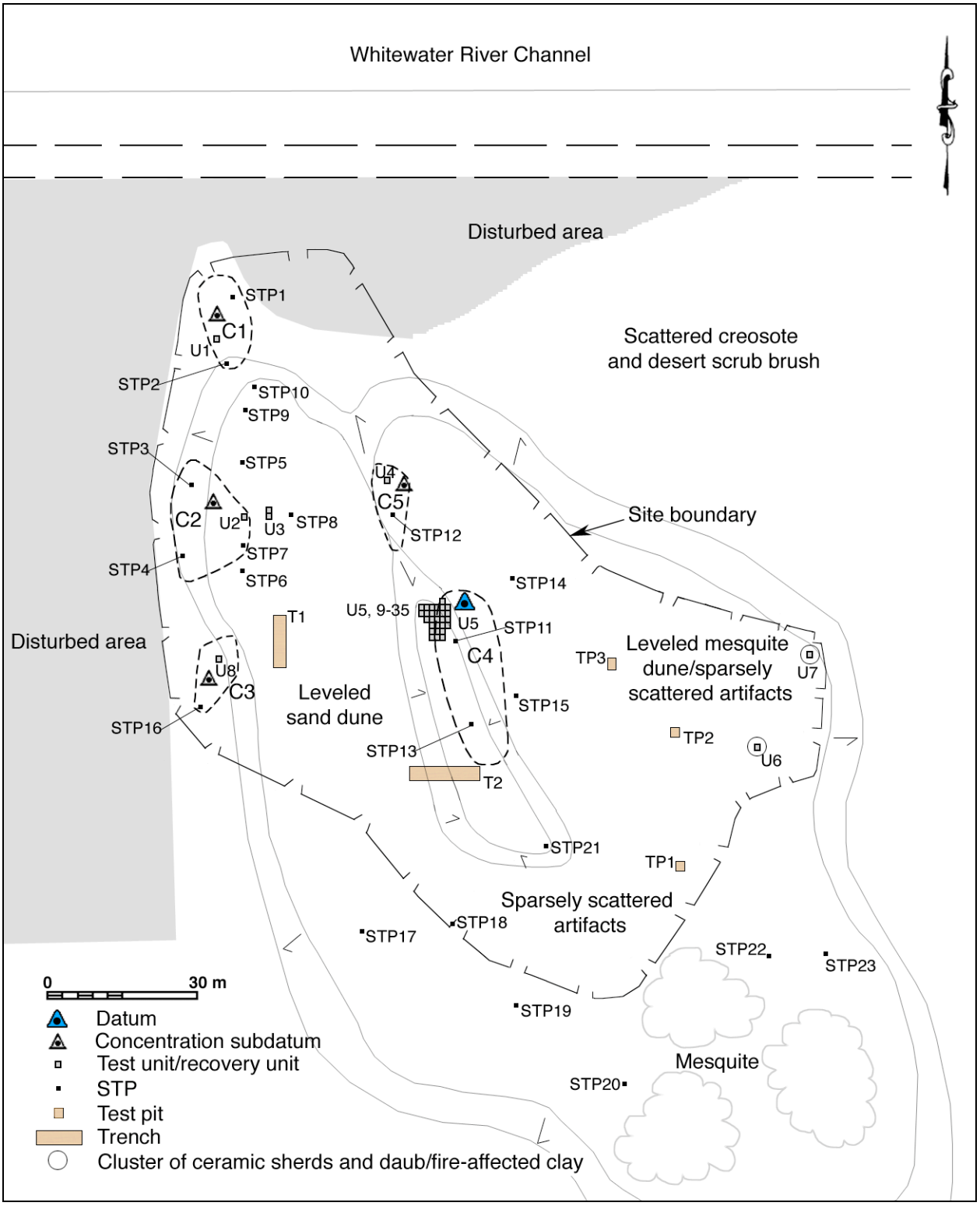

Figure 6. Updated sketch map of CA-RIV-8835, showing new site boundary as well as the locations of artifacts and excavations.

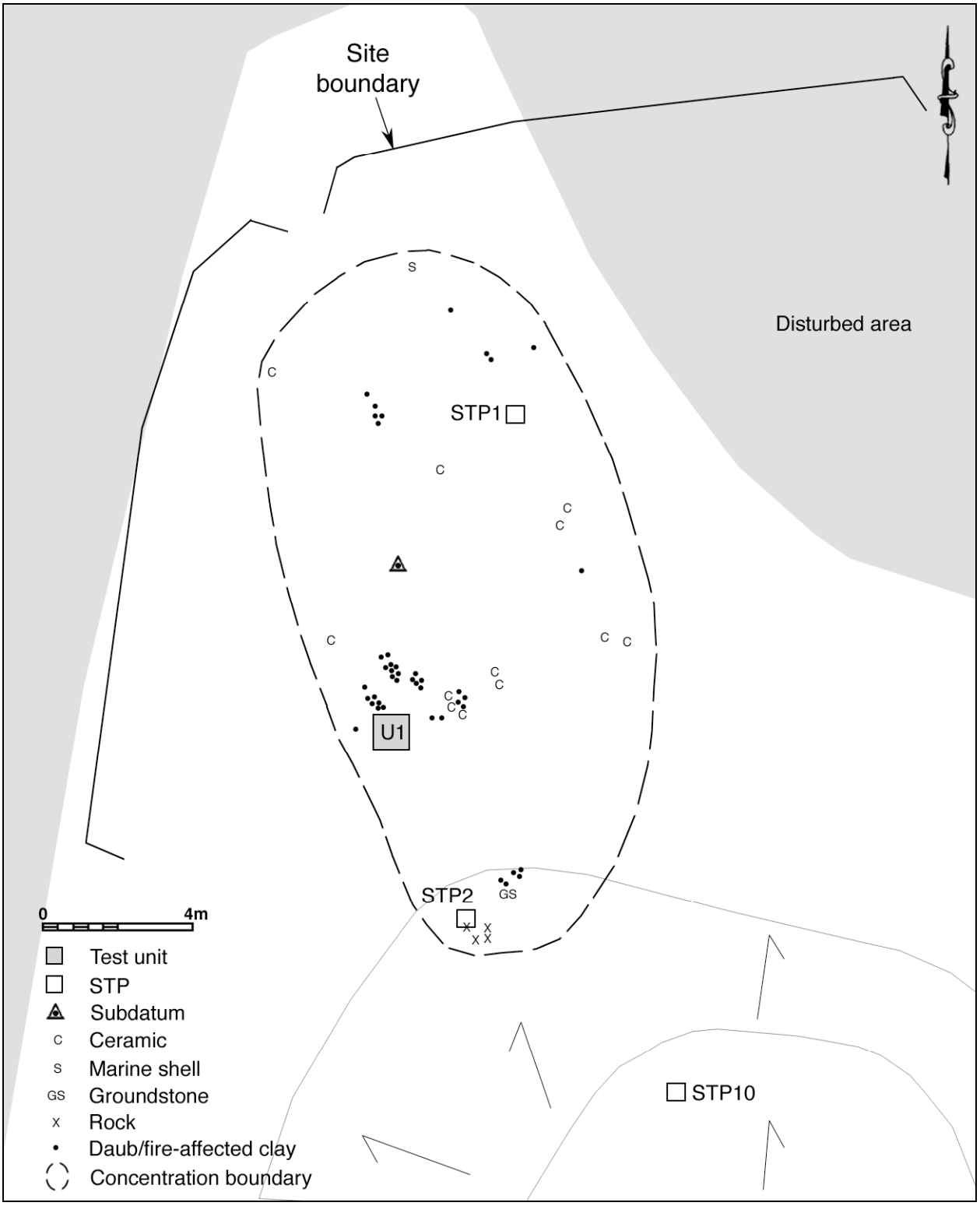

Figure 7. Artifact Concentration 1.

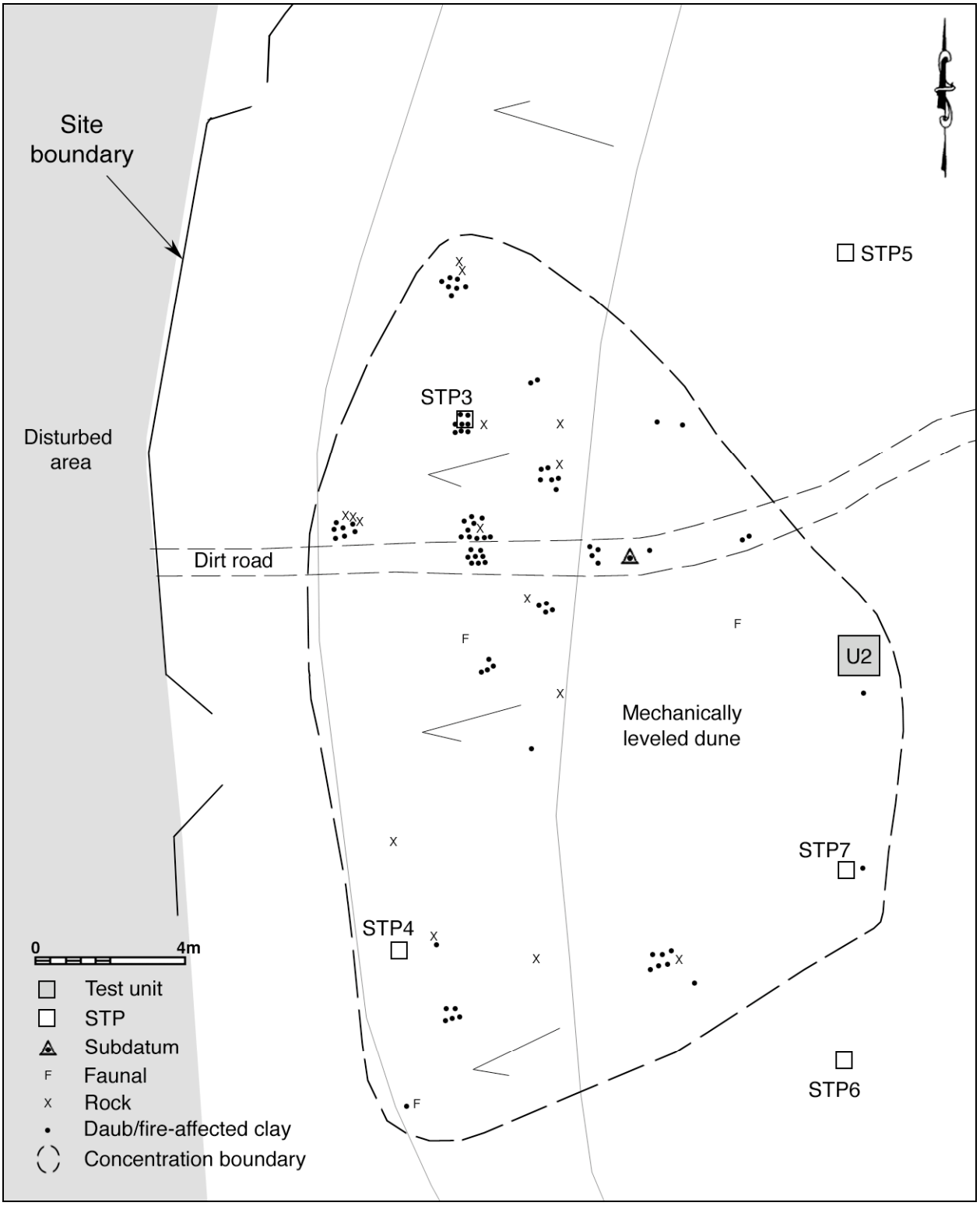

Figure 8. Artifact Concentration 2.

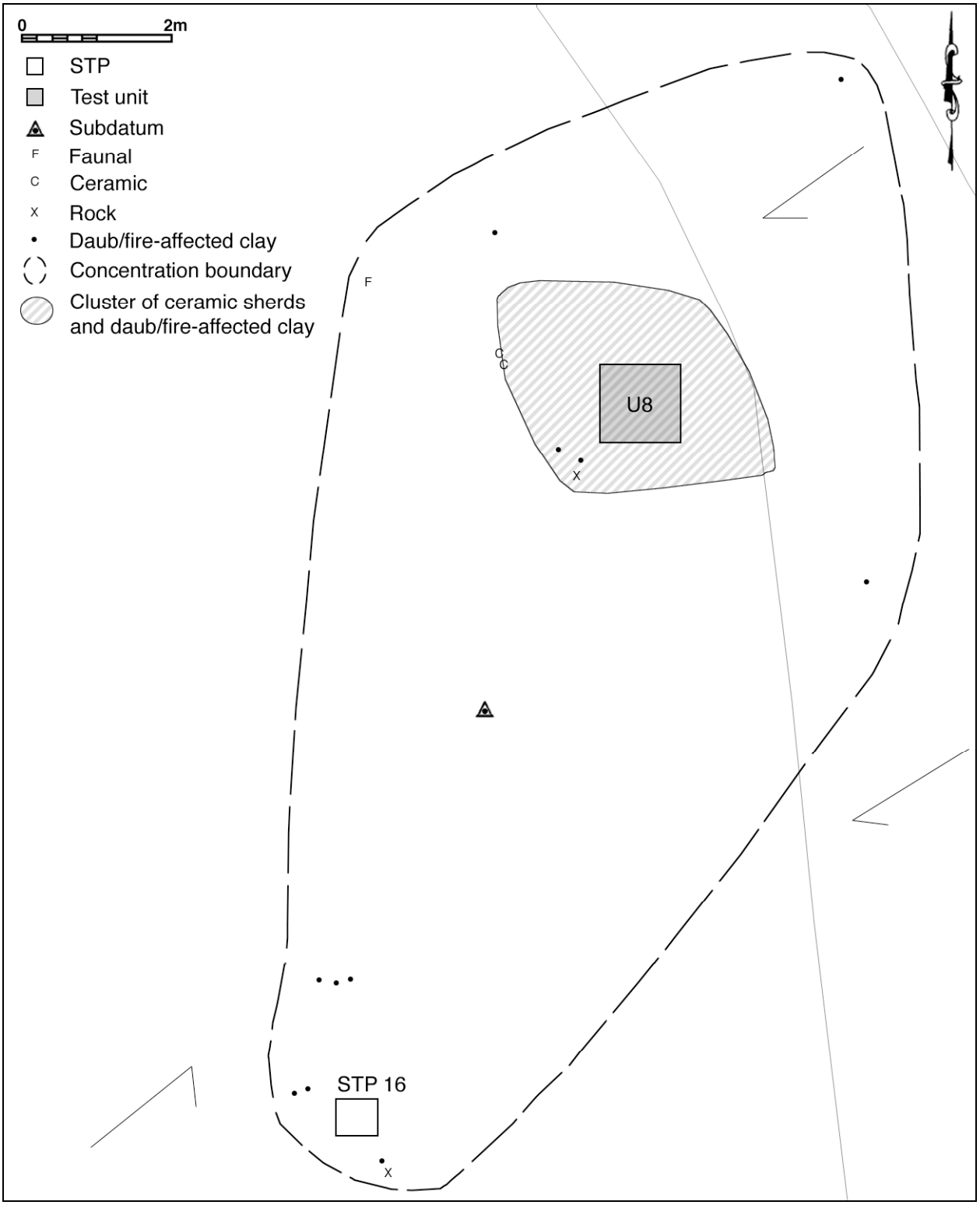

Figure 9. Artifact Concentration 3.

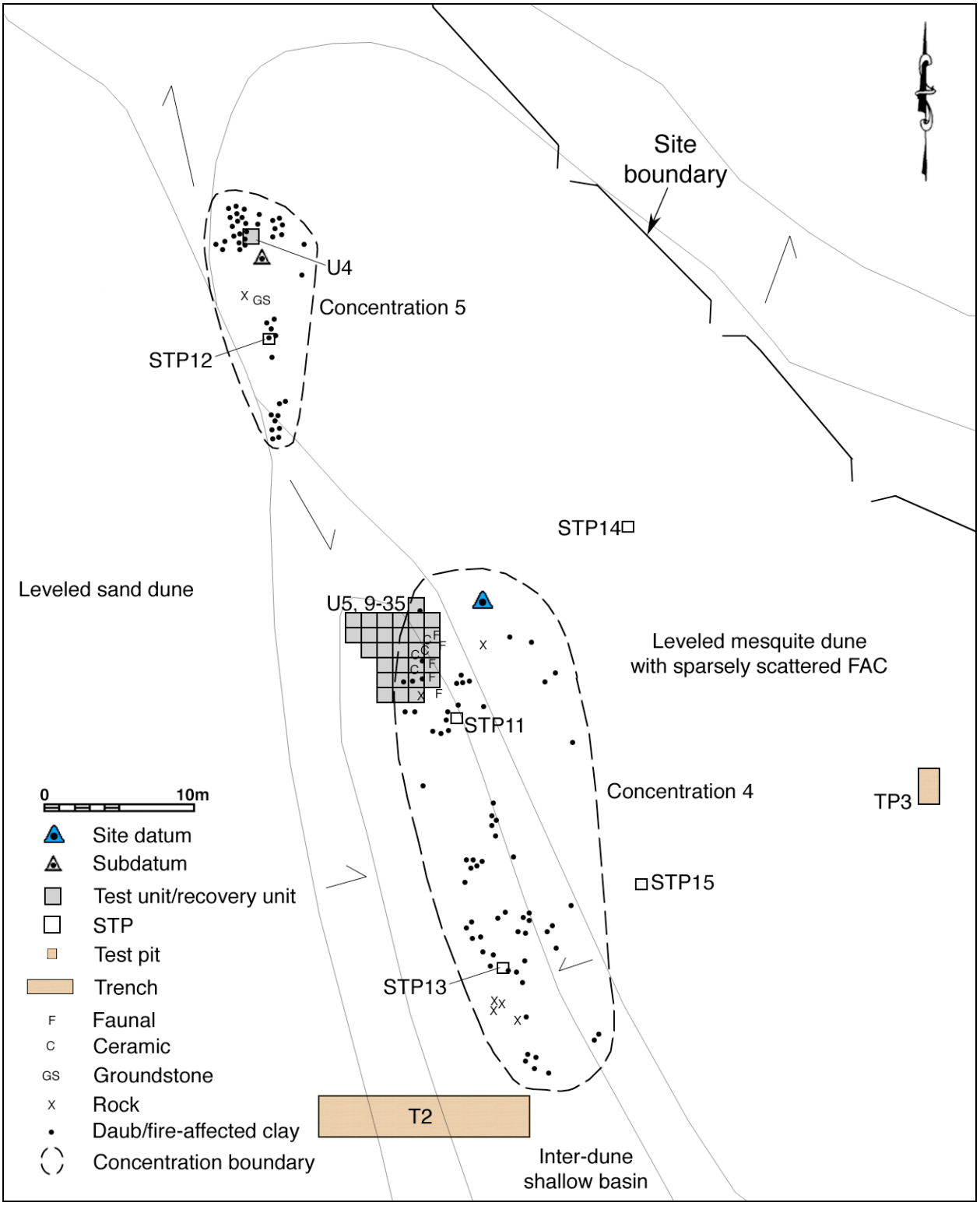

Figure 10. Artifact Concentrations 4 and 5.

Table 2. Materials Recovered from Test Units Excavated at Site CA-RIV-8835							
Test Unit #	**Daub/FAC**	**Rock**	**Charcoal**	**Faunal**	**Ceramics**	**Shell**	**Lithics**
1	134+	13	Trace	1	6	0	0
2	77+	1	Trace	4	0	0	0
3N	44+	6	0	1	0	1	0
3S	53+	11	1	4	0	3	0
4	152	4	6	7	0	1	0
5	70	5	0	51	0	0	3
6	14	0	Trace	3	1	1	0
7	1	1	0	0	0	0	0
8	30	0	0	1	1	0	0
Total	**575+**	**41**	**7**	**72**	**8**	**6**	**3**

upper layers of the site consist of fine-grained, loosely compacted dune sands that are thinly bedded and slightly sloped from the southeast to the northwest, indicative of the local wind current, which blows southeast from the San Gorgoino Pass through the Coachella Valley and into the Salton Basin.

In the sidewalls of several units a well-developed soil horizon was identified approximately 40-70 cm below ground surface, sandwiched between layers of aeolian deposits. The soil horizon, observed in Units 2 and 3 and STPs 5, 8, 9, and 10, contained a moderate amount of daub/FAC and trace amounts of shell, charcoal, and faunal. The layer contained low to moderate organic inclusions and, in several areas, a noticeable quantity of charcoal flecks. Compact ponded sediments, apparently deposited by the overbanking of the Whitewater River, were also identified 70-100 cm below ground surface in several units.

Upon the discovery of potential human remains in Unit 5, on April 15, 2008, CRM TECH principal investigator Michael Hogan contacted the Riverside County Coroner's Office to report the find. On April 17, Corporal Deborah W. Gray of the Riverside County Coroner's Office visited Site CA-RIV-8835 and inspected the remains for diagnostic attributes that could confirm human origin. Corporal Gray identified a human cranial fragment and phalange, and thus determined the remains were most likely of Native American nature.

The Riverside County Coroner's Office subsequently notified the State of California's Native American Heritage Commission of the find, and the commission identified the Torres Martinez Desert Cahuilla Indians as the most likely descendent. On April 22, Ernie Morreo of Torres Martinez contacted CRM TECH by phone and arranged for a site visit in order to perform a ceremonial blessing and provide instructions for the treatment and removal of the remains. CRM TECH personnel met with Mr. Morreo on site the following day and received permission to recover and analyze the remains.

SHOVEL TEST PITS

The 23 STPs at Site CA-RIV-8835 were excavated to the depths of 50-100 cm below ground surface. Approximately 469 artifacts, including ceramic sherds, and daub/FAC, were recovered from the STPs. In addition, freshwater shell, charcoal, rock, and faunal was also recovered in limited quantities (see Table 3). Observations of site stratigraphy derived from the sidewall inspection of test units were confirmed by the STPs, although the soil horizon appeared to contain far greater quantities of charcoal in several STPs excavated northeast of Concentration 2.

Table 3. Materials Recovered from STPs Excavated at Site CA-RIV-8838							
STP #	**Daub/FAC**	**Rock**	**Charcoal**	**Faunal**	**Ceramics**	**Shell**	**Lithics**
1	0	0	0	0	1	0	0
2	9	0	0	1	0	1	0
3	30	2	0	3	0	0	0
4	10	1	0	1	0	0	0
5	15	0	0	5	0	0	0
6	1	0	Trace	0	0	0	0
7	4	0	Trace	0	0	0	0
8	16	0	Trace	0	0	2	0
9	46	1	Moderate	8	0	3	0
10	48	0	Trace	0	0	1	0
11	21	0	0	0	0	0	0
12	72	0	0	0	1	0	0
13	8	20	0	0	0	0	0
14	28	0	0	0	0	0	0
15	8	0	0	0	0	0	0
16	60	1	0	0	0	0	0
17	0	0	0	0	0	0	0
18	17	0	0	0	0	0	0
19	15	0	0	0	0	0	0
20	0	0	0	0	0	0	0
21	7	0	0	0	0	0	0
22	1	0	0	0	1	0	0
23	0	0	0	0	0	0	0
Total	**416**	**25**	**N/A**	**18**	**3**	**7**	**0**

BACKHOE TRENCHES AND PITS

The two backhoe trenches and three backhoe test pits placed at Site CA-RIV-8835 were excavated to the depths of 150-250 cm below ground surface. More than 100 artifacts, mostly daub/FAC, faunal, ceramic sherds, charcoal, and rock, were recovered from the trenches and the pits. Stratigraphic layers previously observed were also apparent in the sidewalls of the trenches and the pits, although two additional ponded sediment/clay layers were noted at depths exceeding 100 cm.

Table 4. Materials Recovered from Backhoe Trenches and Test Pits Excavated at Site CA-RIV-8835							
Trench/ Pit #	**Daub/FAC**	**Rock**	**Charcoal**	**Faunal**	**Ceramics**	**Shell**	**Lithics**
T1	5	0	10+	2	0	0	0
T2	60+	5	0	5	0	0	1
TP1	6	0	0	0	0	0	0
TP2	3	0	0	0	4	0	0
TP3	0	1	0	0	0	0	0
Total	**74+**	**6**	**10+**	**7**	**4**	**0**	**1**

RECOVERY UNITS

After the discovery of the confirmed human remains in Unit 5, a total of 27 additional units, subsequently designated Units 9-35, were excavated in a "block" around Unit 5 to recover the remains. CRM TECH arranged for Native American monitor Gary Resvoloso from the Torres Martinez Desert Cahuilla Indians to observe the excavation of the recovery units and the removal of the cremation remains, which was carried out on April 24-28. The

remains were then taken to the CRM TECH laboratory for analysis (see below). The remains and any associated burial items will be repatriated to the Torres Martinez Desert Cahuilla Indians for possible re-interment on the property.

The recovery units were excavated to the depths of 20-40 cm below ground surface, but no intact cremation feature was found. The human remains were clustered in shallow surface deposits over a wide area measuring more than 6x6 meters, indicating that the cremation was likely disturbed from its original depositional context and dispersed over the surface of Concentration 4. In all, more than 1,125 artifacts and ecofacts, including the cremated human bone fragments, other faunal, ceramic sherds, lithics, daub/FAC, rock, and shell, were collected from the 27 recovery units in the cremation area.

Table 5. Materials Recovered from Recovery Units Excavated at Site CA-RIV-8835

Unit #	Daub/FAC	Rock	Charcoal	Faunal	Ceramics	Shell	Lithics
9	50+	0	0	22	0	0	1
10	15	0	0	6	0	0	0
11	9	5	0	13	0	2	0
12	6	0	0	11	0	0	1
13	7	0	0	13	0	0	0
14	8	0	0	3	0	0	0
15	35+	3	0	38	0	1	0
16	35+	1	0	26	0	1	0
17	22+	1	0	22	0	0	0
18	12	1	0	7	1	0	0
19	22+	4	0	21	0	0	0
20	22+	3	0	21	1	0	0
21	25+	1	0	29	0	0	0
22	25+	13+	0	13	1	1	0
23	15+	0	0	22	1	0	2
24	18+	9	0	20	2	0	0
25	13	3	0	14	1	0	0
26	0	5	0	2	1	0	0
27	11	6	0	20	0	0	0
28	18	5	0	11	1	0	1
29	13	1	0	12	4	0	0
30	11	1	0	55	1	0	0
31	22+	1	0	49	0	0	0
32	10+	0	0	25	0	0	0
33	20+	2	0	36	0	0	0
34	9	0	0	30	1	0	0
35	10+	0	0	30	0	0	1
Total	**463+**	**65+**	**0**	**571**	**15**	**5**	**6**

LABORATORY ANALYSIS

CERAMICS

A total of 64 ceramic sherds were recovered from Site CA-RIV-8835. Of this total, 46 (72%) were made from sedimentary clay (buffware) and 18 (28%) from residual clay (brownware). This percentage of buffware to brownware is in line with that presented for the shoreline area of Lake Cahuilla in La Quinta (Pallette and Schaefer 1995: 117). Further

analysis of the sherds indicates that 33 were from water jars, 24 from bowls, 5 from cooking vessels, and 2 were spalls (i.e., sherds with one or both surfaces missing). Among the sedimentary clay sherds, 33 were from water jars, 9 from bowls, 2 from cooking vessels, and 2 were spalls. The residual clay sherds appear to be divided between 15 from bowls and 3 from cooking vessels.

Four of the sedimentary clay sherds recovered from this site have been burned along the broken edges, suggesting that they were burned after breakage. These include two from Concentration 1 and two from Concentration 4, namely the cremation area. The two sherds from Concentration 4 appear to be from the same vessel.

LITHICS

A total of 15 lithic artifacts were recovered from Site CA-RIV-8835. Four are shatter, eight are flakes, and three are biface fragments. Two of them are made from chalcedony, two from wonderstone, and one each from andesite porphyry, clear quartz, granitic rock, milky and clear quartz, milky quartz, quartzite, Santa Rosa Mountain slate, and questionable wonderstone. Of the eight flakes, six are early stage percussion flakes, one is a late stage percussion flake, and one is a late stage pressure flake. The late stage percussion and pressure flakes are from chalcedony. One larger piece of andesite porphyry was found along the rocks and has been included in that assemblage, not among the lithics. One of the lithic artifacts is a large cortex flake of granitic rock that was probably struck while shaping a groundstone tool.

The lithic material recovered is too small in number and rock type to make many inferences. However, the one flake of Santa Rosa Mountain slate is of interest because the Santa Rosa Mountain Slate is not a common lithic material in Coachella Valley sites and has so far had a limited distribution (Quinn 2005:39-41). With the exception of Site CA-RIV-8403 in Indio, the other sites known to contain Santa Rosa Mountain slate material were all in found in Indian Wells and La Quinta (*ibid.*).

The biface lithics consist of two point tips and one blade midsection, and all three came from Concentration 4, the cremation area. One of the point tips is made from milky and clear quartz. The other point tip and the blade midsection are made from Wonderstone, and both have fire-crazed surfaces. Based on the fire crazing of heir durface, both of these bifaces were in the cremation fire and therefore appear to be directly related to the human remains.

GROUNDSTONE

Only three fragments of groundstone were recovered at this site, one from a pestle, one from a mano, and one from a metate. The pestle fragment was recovered from Concentration 5 and is made from Orocopia-type schist. Its presence suggests that wooden mortars were being used at this site to process mesquite beans. The mano fragment was recovered from Concentration 1 and is a biface type. It is made from gneiss, has shaped sides, and is ground oblique to foliation. This is unusual as most manos made from gneiss are ground parallel to foliation. The metate fragment, found in Concentration 5, is a small piece of the ground surface. It is made from schist and is ground parallel to schistocity.

ROCK

A total of 159 rocks were recovered from CA-RIV-8835, most of which are small and unburned. Because of the small sizes and unburned condition, little information could be obtained from them. The rock material is mainly of granitic composition, common schist, and gneiss, with a few hornfels, arkose, pegmatite, and quartzite, as well as one of andesite porphyry. The one piece of andesite porphyry may actually be a cortex lithic rather than a rock.

Most of the rock was recovered from the artifact concentration, but some of it was found outside these areas. Surface collecting yield 5 rocks from Concentration 1, 15 from Concentration 2, 2 from Concentration 4, and 1 from Concentration 5. Recovered from the excavation of units and shovel test pits were 12 rocks from Concentration 1, 3 from Concentration 2, 17 from Concentration 3, 18 from Concentration 4, and 4 from Concentration 5. The recovery units dug at Concentration 4 yielded another 71 rocks.

Analysis of the rock material found all but the arkose and andesite porphyry could have come from the Santa Rosa Mountain region. The arkose most likely has its origin in the Indio Hills and the andesite porphyry was probably from the Mojave Desert region. Much of the small rock recovered from the western portion of the site appears to be recent commercial aggregate.

SHELL

Ten shell fragments were recovered from this site, all but one of them from *Anodonta* sp. Of these nine *Anodonta* sp. fragments, four came from Concentration 2 and five from Concentration 4. While all of the *Anodonta* sp. shell fragments appear to be unburned, this could be the result of sandblasting. *Anodonta* sp. was a common mussel living in Holocene Lake Cahuilla and may also have lived in sloughs along the Whitewater River. It was used as a food item and at least one *Anodonta* sp. roasting pit was found at a site roughly a half-mile to the west. Another *Anodonta* sp. roasting pit was found during monitoring of grading at the property on the southwest corner of Dune Palms Road and Highway 111. Often, small shell fragments of *Anodonta* sp. that have been sandblasted will exhibit no signs of burning even if they were burned. Because none of the shell fragments recovered here can be shown to have been burned, none of them can be said for certain to be cultural in origin.

FAUNAL

The archaeological investigation at CA-RIV-8835 resulted in the identification and recovery of one human cremation, and non-human animal bone fragments were also collected from the surface and the upper levels (i.e., 10-40 cm) of units and STPs across the site. All of the bone specimens were screened through 1/8 mesh screen. The soil at the site consisted of fine-grained, loosely compacted dune sands.

Due to the poor preservation of the bone and the high degree of fragmentation, only eight species were identified from the faunal assemblage, with the remaining bone fragments recognized only to family, genus, and class or placed into relative size categories. Aside from the bone specimens recovered, two bone tool fragments, mostly likely associated with

the cremation, were also collected. Table 6 shows the frequency distribution of specimens by identified taxa. Approximately 65% of the bone specimens recovered were small, unidentifiable fragments and were classified as "indeterminate." A large amount (91%) of the faunal material recovered is calcined, indicating exposure to high temperatures. No cutmarks are identified on any of the faunal material.

Table 6. Faunal Species by Taxon

Taxon	Common Name	NISP
Homo sapiens	Human	88
cf. *Homo sapiens*	Probable Human	83
Artiodactyl	Artiodactyl	2
Sylvilagus audubonii	Desert cottontail	3
Lepus californicus	Jack rabbit	5
Leporid	Rabbit/Hares	2
Urocyon cinereoargenteus	Gray fox	1
Neotoma fuscipes	Dusky-footed woodrat	8
Spermophilus beecheyi	California ground squirrel	1
Mammalia, small-medium	Small-medium mammal	21
Mammalia, small	Small mammal	4
Mammalia, indeterminate	Indeterminate mammal	467
Buteo jamaicensis	Red-tailed Hawk	3
Avian	Bird	1
Gopherus agassisii	Desert tortoise	6
Crotalus sp.	Rattlesnake	2
Gila elegans	Bonytail chub	4
Cyprinidae	Carp	2
Osteichthyes	Bony fish	13

Human Remains

A total of 88 bone specimens (70.29 g) recovered from the cremation were identified as human (*Homo sapiens*). The cremation was first encountered in the upper levels (10-40 cm) of Unit 5 and scattered across the surface of Concentration 4 with no indication of dark or ash soil layer typical of *in-situ* burning. The absence of the dark, ashy deposit may suggest that the individual was cremated elsewhere and the remains were re-deposited at this location (Ubelaker 1994:35). Another 83 bone specimens (32.13 g) bear characteristics in thickness, curvature, and surface morphology that suggest probable human origin, but lack the diagnostic features for a positive identification due to fragmentation and exposure to extreme temperatures.

Condition

The majority of the bone specimens recovered were poorly preserved and highly fragmented, and all of the bone examined is calcined, indicating burning at a relatively high temperature. Calcination of bone occurs when the bone is in direct contact to fires of excess heat (>800°C) for a long period of time, and the color of the bone ranges from bluish-gray to white (Ubelaker 1994:35-36; McCutcheon 1992). The exposure to high temperatures is known to cause fragmentation, warping, and changes in size and shape (Ubelaker 1994:35). The amount of shrinkage of the bone is dependent on the density of the bone, the temperature, and the duration of the fire (van Vark 1970:102; Shipman et al. 1984), but bone can shrink up to 25% (Ubelaker 1994:35; White and Folkens 2005). Knight (1985) suggests

that bones are not destroyed by burning, but rather become extremely fragmented, and therefore reduces the probability that a specimen can be identified, which is evident in the burned bone assemblage. As a result, identification of anatomical elements was obtained for 86 of the bone specimens, including fragments of radius, ulna, vertebrae, incisor and other cranial elements, sacrum, metapodial, phalanges, and ribs (Table 7). Since none of the elements is represented twice per side, it is likely that only one individual is represented by the cremation.

Table 7. Represented Elements of Human Remains

Element	Count
Cranial, tooth, incisor	1
Cranial, indeterminate	33
Cranial, maxilla	1
Cranial, nasal	1
Cranial, occipital	9
Cranial, orbital	2
Cranial, parietal	8
Cranial, zygomatic	2
Long bone	9
Metapodial	3
Phalanx, hand	4
Phalanx, indeterminate	4
Radius	1
Rib	4
Sacrum	1
Vertebra, thoracic	1
Vertebra	1
Ulna	1
Indeterminate	2

Patterns of bone fractures and colors caused by exposure to extreme temperatures can provide useful information regarding the crematory procedure (Ubelaker 1994:36). Baby (1954) and Binford (1963) suggest that cremation of dried bones produces different patterns than cremation of bones with flesh around them. Burning of dry bone will cause cracking on the surface and longitudal splitting, but no warping or twisting, while burning of "green" or flesh-covered bone creates curved transverse fracture lines, irregular longitudal splitting, and marked warping (Ubelaker 1994:36).

The majority of the human remains from CA-RIV-8835 exhibit irregular longitudal splitting and marked warping, which suggests that the individual was cremated in the flesh, probably soon after death. Ethnographic accounts (Bean 1972; 1978; James 1960; Kroeber and Hooper 1978; Bean and Bourgeault 1989:75) indicate that it was customary among the Cahuilla to burn the house and body of the deceased the morning after the death.

Age and Sex

The aging and sexing of skeletal elements has been documented by several authors, including Bass (1995), White and Folkens (2005), and Ubelaker (1994). The age and sex of the particular individual represented by this cremation are somewhat difficult to assess due to the extreme fragmentary nature of the assemblage. One of the primary criteria for assessing age is the fusion of the epiphysis to the long bone, which occurs at around 18

years of age (Bass 1995; White and Folkens 2005), but no epiphyses were encountered in the collection. One complete incisor tooth is available that may indicate the age of the individual. The single tooth exhibits significant crown wear patterns and full dentine exposure, which is indicative of an adult age (Bass 1995). The two vertebrae represented in the collection appear to be fused, which occurs between the ages of 17 and 25 years (Bass 1995:102). In addition, the overall thickness and robustness of the cranial and long bone shaft fragments identified further indicate that the individual was of a mature age.

Bass (1995) discusses that one of the regions from the human anatomy to determine gender is from the skull. However, the skull fragments identified in this collection are too fragmentary to be reconstructed for the assessment of gender. Although the fragments are small, they are relatively thick and robust, and appear to indicate a male individual. Skeletally, there is insufficient evidence to accurately determine the gender of this individual.

Pathology

Studies in the pathology of the deceased can sometimes infer information regarding the health of an individual or population (White and Folkens 2005:309). Bones and teeth can be records of events in the life of an individual, including trauma and disease (*ibid*.). Little evidence of pathology was observed in this sample; however, possible osteomyelitis of the ulna was noted. Osteomyelitis is bone inflammation caused by bacteria that typically enters the bone via a wound (*ibid*.:318). This disease mainly affects long bones and is characterized by the growth of new, coarsely woven bone around the original bone cortex, resulting in the appearance of a distorted bone surface (*ibid*.). The bone surface of the ulna fragment in the assemblage exhibits this pattern, which may the result of osteomyelitis.

Non-Human Vertebrate Remains

A total of 547 non-human bone specimens weighing approximately 103.56 g were recovered from the site, and the animals represented include mammal, fish, bird, and reptile. These non-human vertebrate remains will be discussed by class. A large portion (n=467; 79.89 g) of the faunal collection was identifiable only as mammal-indeterminate, an attribution based on bone structure, morphology, and density.

Mammalia

Small Mammals

A small percentage of the assemblage from CA-RIV-8835 was identified as representing rodents typically found in the area. Eight unburned bone specimens (0.69 g) represent Dusky-footed woodrat (*Neotoma fuscipes*) and are probably intrusive, resulting from the animals dying naturally at the site. Generally, this species prefers a variety of habitats, including sagebrush, brushland, rocks, cliffs, or mountains (Jameson and Peeters 2004:316). Woodrats were commonly part of the Native American diet (Campbell 1999). One unburned mandible of California ground squirrel (*Spermophilus beecheyi*) was collected from Concentration 2 and is probably intrusive. In addition, three other indeterminate small mammal specimens, both distinctive to *Rodentia* but not to lower-level taxa, were also recovered. All three specimens are burned.

Small-Medium Mammals

Three bone specimens (0.40 g) of a desert cottontail (*Sylvilagus audubonii*) were identified in the assemblage. The specimens include a proximal shaft of a humerus, a scapula, and a calcaneus, and none of them is burned. Five specimens were identified as jackrabbit (*Lepus californicus*) and only one of these is burned, suggesting an intrusive origin. Twenty-one (5.15 g) additional long bone fragments were recovered and attributed to the small-medium mammal category, probably representing rabbit and hares. All but one of these specimens are calcined and may be associated with the cremation.

Rabbits and hares area found in a variety of habitats, including open areas and bushy environments. Jackrabbits are abundant in brushy areas with sparse cover and prefer open prairies and deserts (Burt and Grossenheider 1980) below 6,000 feet in elevation. Cottontail is often the dominant taxon at southern California archaeological sites, where they provided food and hide for the local inhabitants. Desert cottontails prefer open plains, foothills, and low valleys with grass, sagebrush, or piñon-juniper (*ibid.*). Both species typically contribute to large portions of the Native American diet and their bones can be manufactured into tools, such as awls.

Medium Mammals

One specimen (0.69 g) of a calcaneus representing gray fox (*Urocyon cinereoargenteus*) was collected from Unit 25, Level 1, and is calcined. The gray fox is the most common and widespread fox species in the Pacific states and thrives in cultivated land, chaparral, and forested areas (Jameson and Peeters 2004:164). This species has not been recorded at many sites in the Coachella Valley, and its presence here is intriguing. The animal may have been captured somewhere else and transported to the site through trade or travel from a nearby mountain range.

Large Mammals

Two bone specimens (5.11 g) representing artiodactyl (*Artiodactyla*) were identified in the assemblage. Due to the lack of any identifying characteristics or features, neither specimens could be identified any further, but both are probably of deer. One specimen, a lateral condyle of a metapodial, was collected from 200-250 cm below the ground surface in Trench 1. The other, a body fragment of a vertebra, was colleted from 0-50 cm below the ground surface in Trench 2. Neither of these specimens is burned or modified in any way. Artiodactyls are typically considered as high-ranked preys because they supply large amounts of meat and provide valuable by-products, but require more time and energy to catch compared to most species (Broughton 1994; 1999). The specimens represented here are low meat-yielding elements, not from areas of the skeletal anatomy that are known to contain large portions of meat.

Aves

Two avian bone specimens representing red-tailed hawk (*Buteo jamaicensis*) were collected from Unit 24, Level 1. The elements consist of fragments of a femur and a tibiotarsus and are not burned or modified in any way, suggesting intrusion. Additionally, one specimen was only identifiable as avian-indeterminate and is calcined. Birds were commonly

consumed among the local inhabitants, and the favorable method of capture was by nets and snares (Cornett 2000:49). Native Americans hunted quail more than any other species because they tend to travel in groups. Although quail mainly provided food, the feathers were also used as decorations to adorn the headdresses of rain shamans of many tribes (*ibid*.:50).

Reptilia

The Coachella Valley is home to a diverse range of reptiles, two of which are represented in the faunal assemblage from CA-RIV-8835. Six bone specimens (3.85 g) representing the desert tortoise (*Gopherus agassizii*) were collected from Unit 20, Level 1, and from the lower levels of Trench 2. Three of these specimens were identified as carapace fragments. Two of these are calcined, and one additional fragment is charred. The tortoise would have provided an important source of high-quality protein during times of seasonal stress when other sources were not readily available. Ethnographic accounts indicate that the carapace was used as a shovel, trowel, scooper, spoons, or ladle, as well as for ceremonial rattles.

Fish

Fish remains have been reported at numerous sites throughout the Coachella Valley, especially at sites situated along the northern shoreline of ancient Lake Cahuilla (Love et al. 2000a; Wilke 1976). Previous archaeological investigations in the area have yielded such species as razorback sucker (*Xyrauchen texanus*), bonytail chub (*Gila elegans*), and Colorado squawfish (*Ptychocheilus lucius*) associated with the last high stand of the ancient lake (Follet 1979; 1988; Gobalet 1990; 1992; 1994; Yohe et al. 1986; Wilke 1976; Moffit and Moffit 1996).

The small assemblage of fish faunal from CA-RIV-8835 is representative of the region and comparable to other known assemblages in the Coachella Valley. A total of 18 fish bone specimens (2.61 g) representing bonytail chub (n=4) and the carp family (*Cyprinidae;* n=2) were identified in the assemblage. Due to a high degree of fragmentation and the lack of any diagnostic features, 13 specimens were only identified as bony fish (*Osteichthyes*). One of these elements is a small vertebra, most likely of a small fish, possibly a razorback sucker. Other elements represented in the assemblage include various regions of the cranium.

No cutmarks were observed on any of the fish bones; however, several of the specimens exhibit small amounts of polishing, indicating that they were cooked. Although the small size of the fish assemblage limits the data potential regarding the procurement and consumption of fish at CA-RIV-8835, the site is located approximately one mile west of the former shoreline of Lake Cahuilla and along the banks of the Whitewater River. Ethnographic accounts and past archaeological investigations indicate that a variety fish species from the lake constituted a large portion of the local inhabitants' diet.

Modified Bone

A study of modified bone, based on the Gifford (1940) typology, was made of any faunal specimens showing evidence of human alteration through cutting, grinding, including finished tools or ornaments for adornments and jewelry. Within the region, mammal

bones were typically modified for awls, needle pins, daggers, beads, or amulets (Heizer and Elsasser 1980:154). After provenience information and weight were recorded, modified pieces were categorized according to general morphology and probable function. Measurements of artifacts and any information on surface observations (e.g., striations, polishing, burning) were documented.

Type T. Bipointed Object

One bone artifact (0.19 g), a round needle tip or barb fragment, was recovered from Unit 20, Level 2 and exhibits polishing. The artifact measures approximately two cm in length and is burned. Needles or barbs served several purposes, including hairpins, fishing equipment, and nose sticks (Gifford 1940:146). This object may have been a personal belonging of the deceased person cremated at the site, and Cahuilla funerary traditions indicate that personal objects were burned with the dead during the cremation process.

In addition, one indeterminate modified bone fragment (1.09 g) was recovered from Trench 1. The specimen exhibits polishing, and it is calcined on its exterior surface and charred on its interior surface. The specimen is awl-like and appears to have been manufactured from the bone of a medium to large mammal.

Taphonomy

As mentioned above, the majority of the faunal assemblage consists of small calcined indeterminate fragments. The high percentage of small indeterminate bone fragments may be attributed to trampling. Past studies (e.g., Haynes 1991; Andrews 1990; Lyman and O'Brien 1987; Myers et al. 1980; Olsen and Shipman 1988; Saunders 1977) have shown that the effects of trampling by animals, including humans, on bones lying on the surface and exposed to weathering would fracture bones into small tiny pieces, and thus be effectively destroyed for analytical purposes. Haynes (1991:253) notes that trampling may "destroy" some skeletal elements, especially those that are somewhat weathered and easily broken. Almost all of the bone specimens from the site were calcined and were found on or near the surface, where they would have been susceptible to weathering. Thus, they were more likely to be broken by trampling.

Interpretation

Archaeological investigations at Site CA-RIV-8835 produced a small faunal assemblage consisting of one human cremation and non-human vertebrate species including mammal, fish, bird, and reptile. The majority of the faunal material was collected from the surface of the site and from the upper levels of the units, STPs, and trenches. Because the artifacts were scatted and not found in-situ, the data potential regarding subsistence strategies and land use and settlement patterns at the site is limited.

The results of the faunal analysis suggest that the cremation remains represent only one individual, most likely an adult suffering from osteomyelitis, who was cremated soon after death. This is in line with Cahuilla funeral practices that have long been documented. The non-human faunal assemblage suggests that the vertebrate portion of the occupants' diet consisted largely of a variety of small mammals, especially rabbits, hares, and rodents, followed by fish. Only two unburned artiodactyl bone fragments were recovered, further

supporting a dependence on small game. An interesting inclusion is the presence of the gray fox, which may have been transported to the site from elsewhere.

The fish species identified in the collection are comparable to other sites in the area, especially those situated along the northern shoreline of ancient Lake Cahuilla (Wilke 1976; Follet 1988; Gobalet 1992; 1994; Moffitt and Moffitt 1996). Although fish remains were recovered in low counts, they represent at least a small supplementary portion of the occupants' diet. The presence of fish indicates that the site was probably occupied during one of the last high stands of Lake Cahuilla and dates to the Late Prehistoric Period.

DAUB/FIRE-AFFECTED CLAY

History of Research

In a previous study (Love et al. 1999:85-88), Harry Quinn proposed a typology for FAC, and that typology is used to evaluate the FAC in this report. During a subsequent study, Quinn conducted a chemical analysis of both unburned and fire-affected clay in an attempt to determine a source for the FAC (Love et al. 2000a:151-153). In a similar study at nearby Site CA-RIV-2936, it was found that the three main types of FAC may be the result of different firing methods rather that actual changes in the clay type used (Love et al. 2000b:53, 55-56). The chemical analysis of FAC from that site suggested that the source of the clay was from local deposits (*ibid.*:46).

What is called fire-affected clay in this report has been referred to as daub in many past studies in the Coachella Valley. Possible uses of FAC have been detailed by James Toenjes in a 1998 study on the Burning Dune Site (Brock and Smith 1998:63-65). Bean (1972:60) reports that animal carcasses were encased in wet clay and then baked in a fire. Clay was used in the construction of a *kish*, or house, by waddle and daub construction and as possible flooring material. It was also used to seal the basket granaries used to store mesquite beans (*ibid.*:72; Barrows 1900:38).

A brick-shaped chunk of FAC was recovered from a fire hearth at Site CA-RIV-64/H, and was found to be composed primarily of the massive-blocky type (Love et al. 2001a:44). It was found in a concentration of charcoal and its actual purpose could not be determined. A clay floor with an associated clay-lined fire hearth was encountered during monitoring at this same site (*ibid.*). The floor was constructed of unfired clay while within the area of the fire hearth was the typical FAC of both the massive-blocky and thin-platy types (*ibid.*).

Large chunks of FAC were also recovered from two fire hearths at Site CA-RIV-2936 (Love et al. 2000b:20-23). These were mainly of the massive-blocky type but did include common pieces of the thin-platy type and a few pieces of the irregular-vuggy type. When some of the larger chunks broke, it was found that they tended to be reddish-orange to orange-brown in color (oxidized zone) on the outside and gray to black (reduced zone) on the inside. Most of these chunks exhibited thin bedding and, when they were exposed at the surface for extended periods of time, tended to split along the bedding planes to form the thin-platy type. Because of this splitting characteristic, the thin-platy pieces tend to be mainly reddish-orange to orange-brown in color, but do include many that are both reddish-orange to orange-brown and gray to black, with a lesser amount that are only gray to black in color.

The thin-platy pieces can be easily blown about by the wind, and as such tend to be the most abundant and least useful of the FAC material for analysis. Since the clay that was used to line granaries and to coat houses should have been rather thin, one would expect this clay to have developed mainly into the thin-platy type when the granary or house was burned. One could also expect to see stick imprints in some of pieces from where the clay was placed onto the framework. Pieces of FAC with stick impressions were recovered from Site CA-RIV-6356 a few miles south-southeast of this project area (Love and Tang 1999; Love et al. 2001b; 2002).

The irregular-vuggy type may result from the firing of silty clay with a high water content with the steam creating the vugs. However, a few of the larger pieces were found to have an oxidized exterior and a reduced interior and to be vuggy throughout.

Current Analysis

FAC was the most abundant material recovered from Site CA-RIV-8835, and 2,448 pieces (40,727.4 g) were collected and analyzed for type and possible use. Of this total, 266 (39,440.6 g) were of the massive-blocky type, 2,147 (1,187.3 g) were of the thin-platy type, and 35 (99.5 g) were of the irregular-vuggy type. Because of the small size and intense sandblasting, no usage of the FAC could be determined. However, the FAC in Concentration 4, the cremation area, may have resulted from the burning of the personal effects of the deceased person. As mentioned above, it was common practice to burn the personal possessions of the deceased, including the house and granaries, shortly after death (Strong 1929:84).

The larger pieces of the massive-blocky type FAC look similar to some of those recovered from Site CA-RIV-2936, located just to the west of Dune Palms Road. At that site, these chunks of FAC were found to be mainly associated with cooking areas and fire hearths (Love et al. 2000b:56).

PART IV

DISCUSSION

RESEARCH QUESTIONS REVISITED

SITE FORMATION PROCESSES

It should be pointed out that a portion of Site CA-RIV-8835 appears to have been extensively disturbed. Examination of the sidewalls in the units and STPs on the western edge of the site, as well as in Trench 1, revealed a noticeable soil change that appeared to be a level surface—level enough to have been graded. Most, if not all, of the cultural materials recovered from this portion of the site were found above the soil change, suggesting that they occurred in a highly disturbed context and, indeed, may be intrusive to this site. The presence of what appears to be recent aggregate (gravel) in the soils in the upper levels provided further evidence of recent disturbances. The western portion of the site may have been leveled and used as an equipment parking area during the construction of Dune Palms Road, or it may be a continuation of the cleared area found across the street to the west, present before Dune Palms Road was established.

CHRONOLOGY

No chronometric dates were available for determining the age of Site CA-RIV-8835. The paucity of artifacts and ecofacts and lack of intact features at the site suggests that this locality was used for a short period of time. The presence of pottery indicates that the site was occupied after the introduction of this artifact type, ca. 1000 A.D. The recovery of fish bones indicates that the occupation occurred during one of the stands of Holocene Lake Cahuilla, most likely the last stand since much of the cultural material was recovered from or near the surface of the site.

SUBSISTENCE

Although the faunal assemblage from CA-RIV-8835 is small, the species composition is similar to other Late Prehistoric sites in the area. The dominance of mammals, especially rabbits, hares, and other rodents followed by fish, suggests an exploitation of a local terrestrial desert environment situated near the former shoreline of ancient Lake Cahuilla, approximately one mile to the east. The research results indicate that the site's occupants employed a mixed strategy of fishing and hunting various small mammals, birds, and reptiles.

SETTLEMENT PATTERNS

As mentioned above, the paucity of artifacts and ecofacts at the site suggests that CA-RIV-8835 was occupied for a short period of time, most likely during the last stand of Holocene Lake Cahuilla. The presence of a human cremation may or may not be contemporaneous with the cultural material found at the site. In any case, the burial of a single individual does not support the idea that this was more than a temporary camp.

SOCIAL INTERACTION AND EXCHANGE NETWORKS

The artifact assemblage did not contain any material goods that could be associated with long-distance exchange networks and, thus, the concept of social interaction and its role in the relationships between people who resided at CA-RIV-8835 cannot be addressed.

However, the cremation feature does provide some insight into burial practices among the Cahuilla. It has been long established that the Cahuilla cremated, rather than buried, the deceased members of their society soon after death. This practice is clearly represented at the site.

ETHNICITY OR CULTURAL AFFILIATION

Based on the possible late date for the occupation of this site as well as the cremated human remains, it is very likely that the inhabitants of this locale were indeed Cahuilla.

CLAY USE

Not much information could be obtained regarding the use of clay at this site. However, the clay found in association with the cremation feature suggests it could have been part of a structure of some sort.

SUMMARY

Site CA-RIV-8835, which contains wide expanses of sparsely scattered cultural debris occasionally interrupted by spatially discrete surface artifact concentrations and small artifact clusters, produced a rather mundane surface material assemblage, dominated by daub/FAC fragments while curiously lacking in the quantity of ceramics, lithics, groundstone, and faunal typical of Late Prehistoric habitation sites. Although no domestic features, such as fire hearths, roasting pits, earth ovens, house/living floors, and midden, were discovered during the testing program, an area containing scattered cremation remains was identified near the site datum on the west-facing slope of the interdune deposit.

Observations of site stratigraphy revealed recent eolian deposition situated on top of older dune deposits and a 20- to 40-cm-thick soil horizon. In several units, thin layers of ponded sediment were noted and subsequent clay silt sediments were identified in all of the backhoe trenches and pits at the depths of 100-250 cm below ground surface. The discovery of ponded sediments corresponds with geoarchaeological findings in the immediate vicinity and adds to the growing data on the Whitewater River Delta/Dune Complex.

Subsurface exploration also identified a moderate and relatively homogenous artifact deposit, containing an abundance of daub/FAC and trace amounts of charcoal, faunal, FAR, and shell. A representative sample of artifacts from the deposit was recovered during the excavation of test units, STPs, backhoe trenches/pits, and recovery units. Materials recovered from the deposit were identical to those recovered from the surface of the site, which was dominated by daub/FAC fragments with relatively sparse occurrences of ceramics, faunal, lithics, FAR, groundstone, and shell.

The low frequency of formal artifacts and tool production waste in conjunction with the homogenous composition of the material assemblage suggests the site was not intensively occupied, but likely served as a resource procurement area. The availability of terrestrial resources and the potential capacity for wetland resources would have attracted the local Native population to the site to collected mesquite beans, possibly tule and cattails, and to

hunt rabbits, rodents, and perhaps aquatic and migratory birds. However, the site appears to have functioned in its greatest capacity as a collection and preliminary processing area with the bulk of food processing activities occurring elsewhere, likely CA-RIV-2936 located approximately 1/2 mile to the west. The presence of cremated human remains, however, may indicate that the site was occupied for brief periods of time, or served as an area for secondary burial, as was the custom for some Cahuilla groups in the region. In addition, other activities, such as ceramic production and food preparation/cooking, may also have occurred at Site CA-RIV-8835.

STATEMENT OF SIGNIFICANCE

Based on the research results discussed above, the following sections present CRM TECH's conclusion on whether Site CA-RIV-8835 (33-16950) meets the official definitions of "historical resources," as provided in the California Public Resources Code, in particular CEQA.

DEFINITION

According to PRC §5020.1(j), "'historical resource' 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))

A local register of historical resources, as defined by PRC §5020.1(k), "means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." For properties within the City of La Quinta, the City's Historic Preservation Ordinance (Title 7, La Quinta Municipal Code) provides for the establishment of a historic resources inventory as the official local register.

A property may be considered for inclusion in the historic resources inventory based on one or more of the following:

A. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering or architectural history; or
B. It is identified with persons or events significant in local, state or national history; or
C. It embodies distinctive characteristics of a style, type, period or method of construction, is a valuable example of the use of the indigenous materials or craftsmanship or is representative of a notable work of an acclaimed builder, designer or architect; or
D. It is an archaeological, paleontological, botanical, geological, topographical, ecological, or geographical site which has the potential of yielding information of scientific value; or
E. It is a geographically definable area possessing a concentration of sites, buildings, structures, improvements or objects linked historically through location, design, setting, materials, workmanship, feeling and/or association, in which the collective value of the improvements may be greater than the value of each individual improvement. (LQMC §7.06.020)

Pursuant to these State and City guidelines, Site CA-RIV-8835 is evaluated for historical, scientific, and ethno-cultural significance against the criteria listed above, especially Criterion 4 for the California Register and Criterion D for the City's historic resources inventory, which applies specifically to archaeological sites. The results of the evaluation are discussed below.

SITE EVALUATION

Under more favorable conditions, analysis of the types of artifacts found at CA-RIV-8835, including daub/FAC, ceramic sherds, lithics, groundstone, FAR, shell, faunal, and human remains, could yield important information on prehistoric life in the Whitewater River Delta/Dune Complex and near the northwest shoreline of ancient Lake Cahuilla. However, in light of the low quantity of formal tool artifacts and production debris, the absence of dense cultural midden, and the relative homogeneity of the material assemblage, Site CA-RIV-8835 has a very limited ability to provide any new information of importance to the results of numerous previous studies in the vicinity.

Based on these considerations, Site CA-RIV-8835 as a whole does not appear to meet the criteria for listing in the California Register and the City's historic resources inventory, and does not qualify as a "historical resource." However, the cremated human remains identified at CA-RIV-8835 retain a high degree of traditional cultural value to the local Native American community. As such, the portion of the site containing the cremation remains is determined to meet CEQA's definition of a "historical resource."

PROJECT EFFECT ASSESSMENT

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."

Since the cremation feature at Site CA-RIV-8835 constitutes a "historical resource," CEQA and associated regulations mandate that project effects to that portion of the site be avoided or mitigated to a level less than significant. Through the archaeological testing program described above, however, the cremated human remains have been adequately recovered from the site, which serves as partial mitigation of the project's potential effects. The mitigation process will be completed upon the repatriation of the remains. At this time, CRM TECH is coordinating with Sobel Enterprises, Inc., and the Torres Martinez Desert Cahuilla Indians, the designated the Most Likely Descendent, to conclude the final repatriation.

CONCLUSION AND RECOMMENDATIONS

Based on the results and findings of the various research procedures completed during the current archaeological testing program, CRM TECH presents the following recommendations to the City of La Quinta:

- The proposed project's potential effects on the remation feature at CA-RIV-8835, a "historical resource" under CEQA, have been mitigated to a level less than significant as a result of this study
- Due to the project area's sensitivity for additional subsurface cultural deposits, archaeological monitoring should be required during all grading and other earth-moving activities within the project boundaries.

PART V

APPENDICES

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APPENDIX 1:
PERSONNEL QUALIFICATIONS

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/Colton, 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, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician 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

Principal investigator, author, co-author, and contributor of 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.

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, 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/Colton, 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, U.C. Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, U.C. Riverside.
1988-1993	Research Assistant, American Social History, U.C. 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, U.C. 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.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Mariam Dahdul, M.A.

Education

2007-	Ph.D. Program, Anthropology, University of California, Santa Barbara.
2002	M.A., Anthropology, California State University, Fullerton.
1993	B.A., Geography, California State University, Fullerton.
2003	"Ceramics Analysis," graduate seminar presented by Dr. Delaney-Rivera, California State University, Fullerton.
2002	"Section 106-National Historic Preservation Act: Federal Law at the Local Level," presented by UCLA Extension.
2002	"Historic Archaeology Workshop," presented by Richard H. Norwood, Base Archaeologist, Edwards Air Force Base.

Professional Experience

2000- Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.

- Preparing cultural resources management reports, maps, and site records;
- Analyzing beads, ornaments, and shell;
- Conducting archaeological field surveys;
- Participating in various archaeological testing and mitigation programs.

Laboratory and Field Experience

2001 Archaeological field school under the direction of Dr. Brian Byrd.

- Test excavations of sites at the San Elijo Lagoon Reserve, including flotation of soil samples and sorting and cataloguing of artifacts.

2000 Archaeological field class under the direction of Dr. Claude Warren.

- Excavated units at Soda Lake in the Mojave Desert and produced lake bottom stratigraphic profiles.

1999-2000 Archaeology Laboratory, California State University, Fullerton.

- Assisted in the cataloguing of artifacts.

1999 Field survey course under the direction of Dr. Phyllisa Eisentraut.

- Surveyed and mapped prehistoric site in the Mojave Desert.

Papers Presented

2002	"Shell Beads from the Coachella Valley," Sixth Annual Symposium of the Coachella Valley Archaeological Society.
2002	"Shell Beads from the Coachella Valley," Kelso Conference on the Archaeology of the California and Mojave Deserts.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources management study reports since 2000.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
John J. Eddy, B.A.

Education

2005	Graduate Program, Department of Anthropology, California State University, Northridge (M.A. expected, Fall 2008).
2003	B.A., Anthropology/History, California State University, San Bernardino.
2000	Archaeological Field School, Willow II survey and data recovery of prehistoric and historic sites, Big Bear, California.

Professional Experience

2007-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2007	Archaeologist (GS-09-01), Inyo National Forest, Bishop, California.
2003-2007	Project Archaeologist/Native American Liaison, CRM TECH, Riverside, California.
2000	Intern cultural anthropologist, California State University, San Bernardino; Genealogy of Gabrielino Band of Mission Indians; Dr. Alan Turner, Director.

Memberships

Society for American Archaeology.
Society for California Archaeology.
Coachella Valley Archaeological Society.
Phi Kappa Phi.

Research Interests

Social interaction networks, reciprocal exchange systems, trade, social identity, craft production cycle, geochemical and mineralogical provenience analysis, softstone source characterization, hunter-gatherer settlement-subsistence systems, spatial analysis and predictive modeling using GIS.

Honors and Awards

2007	Phi Kappa Phi Student Scholarship.
2006	Visiting Researcher, NSF Funded Program for Solid Sample Research in the Archaeological Sciences, IRMES, CSULB (ongoing).
2005-2006	Book Prize for Academic Excellence, Department of Anthropology, California State University, Northridge.

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.
2007	Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
2002	"Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

2002- Field Director, CRM TECH, Riverside/Colton, California.
- Report writing, site record preparation, and supervisory responsibilities over all aspects of fieldwork and field crew.

1999-2002 Project Archaeologist, CRM TECH, Riverside, California.
- Survey, testing, data recovery, monitoring, and mapping.

1998-1999 Field Crew, K.E.A. Environmental, San Diego, California.
- 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, California.
- 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.
- Two weeks of survey in Anza Borrego Desert State Park and Eureka Valley, Death Valley National Park.

PROJECT ARCHAEOLOGIST
Harry M. Quinn, M.S.

Education

1978 Certificate in Archaeology, University of California, Los Angeles.
1968 M.S., Geology, University of Southern California, Los Angeles.
1964 B.S., Geology, Long Beach State College, Long Beach.
1962 A.A., Los Angeles Harbor College, Wilmington.

2001 "The Art and Science of Flintknapping," presented by Jeanne D. Binning, Zzyzx.
1999 "Certified Local Government Preservation Commission, Board, and Staff Training Program," presented by the California Preservation Foundation, Long Beach and Palm Springs.
1998 "Historic Archaeology Workshop," presented by Richard Norwood, Torres-Martinez Indian Reservation.
1997 "Native American Archaeology," presented by Russell Kaldenberg, College of the Desert, Palm Desert.
1996-1998 "Project Archaeology," presented by BLM and DOE, North Palm Springs.
1996 "Mojave Desert Heritage Interagency Workshop," Palm Springs,.
1996 "Cultural Resources and CEQA: Your Responsibility," presented by the Association of Environmental Professionals, Hemet.
1991 "Ceramic Workshop," presented by Dr. Jerry Schaefer, Palm Springs.
1990 "Introduction to Coachella Valley Archaeology," presented by Anne Duffield, Palm Desert.
1989 "Prehistoric Rock Art and Archaeology of the Southern California Deserts," presented by Anne Duffield, UC Riverside Extension, Palm Springs.

Professional Experience

1998- Project Archaeologist/Field Director, CRM TECH, Riverside/Colton, California.
1994-1996 Environmental Geologist, E.C.E.S., Inc., Redlands, California.
1992-1998 Independent Geological/Archaeological/Environmental Consultant, Pinyon Pines.
1988-1992 Project Geologist/Director of Environmental Services, STE Associates/Soil and Testing Engineers, San Bernardino, California.
1966-1988 Geologist/Senior Geologist, Texaco, Inc., Los Angeles; Tenneco Oil Exploration and Production, Englewood, Colorado; Loco Exploration, Inc., Aurora, Colorado; Jirsa Environmental Services, Norco, California.

Memberships

Society for American Archaeology; Society for California Archaeology; Archaeological Survey Association of Southern California; Coachella Valley Archaeological Society (President, 1993-1994, 2000; Vice President, 1992, 1995-1999, 2001; Basic Archaeology Training Course Instructor, 1996-2000; Environmental Assessment Committee Chair, 1997-1999); Coachella Valley Historical Society; Malki Museum; Southwest Museum; El Paso Archaeological Society; Ohio Archaeological Society; West Virginia Archaeological Society; Museum of the Fur Trade; Cahokia Mounds Association.

FAUNAL ANALYST
Matthew Wetherbee, Msc., RPA*

Education

2003	Msc., Palaeoecology of Human Societies, University College London, London, England.
2000	Archaeological field school, North Kharga Oasis Survey, Western desert of Egypt, Greco-Roman period, Egypt.
1999-2001	Study abroad at the American University in Cairo, Egypt.
2000	B.A., Anthropology (emphasis in Archaeology and Zooarchaelogy), University of California, Santa Cruz (UCSC).
1999	Archaeological Field School, San Juan Bautista Historical Mission, Monterey, California, in conjunction with UCSC.
1997	A.A., Anthropology, Irvine Valley College, Irvine, California.
1997	Archaeological Field School, Saddleback College, San Juan Capistrano, California.

Professional Experience

2005-	Project Archaeologist/Faunal Analyst, Stantec Consulting, Inc., Ontario, California
2004-2005	Project Archaeologist/Report Writer, CRM TECH, Riverside, California.
2003-2004	Archaeologist, Cogstone Resource Management, Santa Ana, California. • Fieldwork, lab technician, taphonomist.
2003-2004	Archaeologist, Viejo California, Mission Viejo, California. • Survey, testing, data recovery, and monitoring.
2002	Archaeologist, SWCA, Mission Viejo, California. • Filed crew member for archaeological surveys, mitigation excavations, and monitoring.
2001	Research Assistant, Theban Mapping Project, the American University in Cairo, Egypt.
1999-2001	Archaeological assistant to Dr. Salima Ikram, the American University in Cairo. • Assisted with the Animal Mummy Project at the Cairo Egyptian Museum, and various Egyptology and zooarchaeological research.

Publications

2004	Making a Duck Mummy and Discovering a Secret of the Ancient Technology. *KMT: A Modern Journal of Ancient Egypt* 15(2).

Membership

* Register of Professional Archaeologists; Society of American Archaeology; Society for California Archaeology; International Council for Archaeolozoology; Association for Environmental Archaeology; Coachella Valley Archaeological Society; American Research Center in Egypt.

ATTACHMENT B

CALIFORNIA HISTORICAL RESOURCES INVENTORY RECORD FORMS

Site 33-016950 (CA-RIV-8835)
(Confidential)

ATTACHMENT C

NATIVE AMERICAN RESPONSES

From: GW Res <grestmtm@gmail.com>
Sent: Thursday, November 17, 2022 8:08 AM
To: ngallardo@crmtech.us
Cc: Alesia Reed; areed@tmdci.org; Mary Belardo; Cultural Committee
Subject: Re: Information Request for the Update to Cultural Resources Study for the Proposed Project at the Northeast Corner of Highway 111 and Dune Palms Road; APN 600-030-018, La Quinta (CRM TECH #3967)

Good morning

Thanks for the information I will forward to our Cultural Committee for review then we will invite you to our next scheduled Cultural Committee December 1st or 8th for presentation of the project and open for any questions comments or concerns from the Cultural Committee.

Yes the tribes is willing to participate in filed inspection of this proposed project just send us date and location to meeting for the inspection.

We appreciate your time and effort in helping us protect our Tribes Traditional Cultural Resource

Any questions comments or concerns please feel free to contact us.

Respectfully
Gary Wayne Resvaloso Jr
Torres Martinez Desert Cahuilla Indians MLD
70-555 Pierce St
Thermal Ca, 92274
(442) 256-2964
grestmtm@gmail.com

Our lives begin to end the day we become silent about things that matter.
Martin Luther King Jr.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 9, 2022

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Project at the Northeast Corner of Highway 111 and Dune Palms Road Project, Riverside County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
12/9/2022

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Agua Caliente Band of Cahuilla Indians
Reid Milanovich, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919
laviles@aguacaliente.net

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
84-001 Avenue 54 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Los Coyotes Band of Cahuilla and Cupeño Indians
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.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 Proposed Project at the Northeast Corner of Highway 111 and Dune Palms Road Project, Riverside County.

Native American Heritage Commission
Native American Contact List
Riverside County
12/9/2022

Ramona Band of Cahuilla
John Gomez, Environmental Coordinator
P. O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramona-nsn.gov

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

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
Isaiah Vivanco, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Cultural Committee,
P.O. Box 1160 — Cahuilla
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
Cultural-Committee@torresmartinez-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Anthony Madrigal, Tribal Historic Preservation Officer
46-200 Harrison Place — Chemehuevi
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

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 Proposed Project at the Northeast Corner of Highway 111 and Dune Palms Road Project, Riverside County.

From: Bennae Calac <nativegrounds@aol.com>
Sent: Wednesday, February 8, 2023 5:42 PM
To: ngallardo@crmtech.us
Cc: Alesia Reed; Gary Resvaloso; Wayne Nelson; Steph Cooper; kenny teter
Subject: Native American Monitor Request - Proposed Project at the Northeast Corner of Highway 111 and Dune Palms Road; APN 600-030-018, La Quinta (CRM TECH #3967)

Hello Nina,

I hope this email finds you well, Native Grounds Monitoring Research and Consulting, LLC has been contracted by the Torres Martinez Tribe to provide cultural resource monitoring and assistance in CRM.

We look forward to speaking to you and providing you with a monitor for the above listed proposed project. We have meeting with Torres Martinez Cultural Committee tomorrow at 12pm, if we can talk prior to discuss your monitoring needs that would be great.

Thank you,

Bennae Calac
Board President
Tribal Advisor/Business Development
(760) 617-2872
Nativegrounds@aol.com

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-003-2023-001

April 11, 2023

[VIA EMAIL TO:cflores@laquintaca.gov]
City of La Quinta
Mr. Carlos Flores
78-495 Calle Tampico
La Quinta, CA 92253

Re: Blackpoint Project

Dear Mr. Carlos Flores,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Blackpoint project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area. For this reason, the ACBCI THPO requests the following:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 423-3485. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Xitlaly Madrigal
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-003-2023-001

April 20, 2023

[VIA EMAIL TO:cflores@laquintaca.gov]
City of La Quinta
Mr. Carlos Flores
78-495 Calle Tampico
La Quinta, CA 92253

Re: Blackpoint Project

Dear Mr. Carlos Flores,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Blackpoint project. We have reviewed the documents and have the following comments:

*The presence of an archaeologist that meets the Secretary of Interior's standards during any ground disturbing activities.

*The presence of an approved Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 423-3485. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Xitlaly Madrigal
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS