Appendix E.2

2006 & 2017 Cultural Report
SWCA, 2006 & 2017

Travertine SPA
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Technical Appendices

October 2023

[redacted]

FINAL

CLASS III CULTURAL RESOURCES INVENTORY AND EVALUATION, INCLUDING LIMITED SUBSURFACE TESTING OF ARCHAEOLOGICAL SITE CA-RIV-7394, FOR THE PROPOSED TRAVERTINE DEVELOPMENT PROJECT, CITY OF LA QUINTA, RIVERSIDE COUNTY, CALIFORNIA

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USGS 7.5' Quadrangles

Martinez Mountain 1981 (PR 1988) and Valerie 1956 (PR 1972)

SWCA Project No. 6935-109
SWCA Cultural Resources Report Database No. 05-412

September 25, 2006

*[redacted]

MANAGEMENT SUMMARY

Purpose and Scope: Travertine Corporation retained SWCA Environmental Consultants to provide cultural resources services related to residential development of its property in the City of La Quinta, Riverside County, California. The services entailed a Class III cultural resources inventory of 941 acres on private land owned by Travertine, plus additional acreage for proposed access roads with public lands administered by the Bureau of Land Management and the Bureau of Reclamation. The inventory was conducted in four separate periods, including three separate pedestrian surveys in February 2004, March 2005, and November 2005, and one period of limited subsurface testing of prehistoric archaeological site CA-RIV-7394 in July 2005. This report documents the results of this work.

The ultimate goal of this study was to identify historic properties within the project area, supplement or update information from previous inventories, and to better define the boundaries of CA-RIV-1342 and CA-RIV-7394 in relation to Travertine property. The boundary information will assist Travertine Corporation in making decisions regarding development options relative to the sites' components.

This document describes the location and nature of several significant prehistoric archaeological sites. The inclusion of this information in this report is necessary to enable planning decisions to be made. Therefore, because the locations of archaeological sites must be kept strictly confidential, this entire report must be considered confidential and not be publicly distributed.

2023 NOTE: Confidential information has been redacted from this version of the report.

Dates of Investigation: Cultural resources pedestrian surveys were conducted from February 2 – 6, 2004, March 28 – 31, 2005, and November 21 – 22, 2005. Subsurface testing of site CA-RIV-7394 was accomplished from July 11 – 20, 2005. Two informal surveys were conducted on February 22 and May 31, 2006 to establish the boundaries of a planned conservation area. The investigation included a record search, performed by the Eastern Information Center, University of California, Riverside, on January 15, 2004. A Sacred Lands file search was initiated on December 16, 2003. The Native American Heritage Commission responded on December 23, 2003, and stated that their search failed to indicate the presence of Native American Sacred Lands or traditional cultural properties within the immediate project area. This final report was completed in September 2006.

Investigation Constraints: Ground visibility within the project area varied seasonally, depending on rainfall and vegetation growth. The southern half of Section 33 covered by dense vineyards was not surveyed.

Findings of the Investigation: The literature review indicated that 139 cultural resources are recorded within a one-mile radius of the project area. Twelve previous studies included portions of the development, with a total of 30 cultural resources studies completed within a one-mile radius. Eighteen sites and 10 isolates were previously recorded within the boundaries of the project area. Three of these sites (CA-RIV-1334, CA-RIV-1341, and CA-RIV-1351) were subsumed under multi-component site CA-RIV-7394, and one was later determined not to be a site (CA-RIV-1348), reducing the number of previously recorded sites within the project area to 14. Due to dense vegetation cover, five of these sites were not relocated during this intensive survey.

Seven sites [redacted] were relocated and their information updated (CA-RIV-1331, CA-RIV-1349, CA-RIV-5323, CA-RIV-3874, CA-RIV-3873, CA-RIV-3872, and CA-RIV-5322). An additional five sites [redacted] CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) were identified

here. The investigation clarified whether these 12 sites [redacted] are located on public lands administered by the BLM or privately owned Travertine Corporation land. A further three previously unknown prehistoric sites (CA-RIV-7960, CA-RIV-7961, CA-RIV-7962) and eight prehistoric isolates (P-33-14852, P-33-14853, P-33-14854, P-33-14855, P-33-14856, P-33-14857, P-33-14858, and P-33-14989) were also identified as a result of this study. No historic-era resources were identified.

Multi-component site CA-RIV-7394 is recommended eligible for listing on the National Register of Historic Places, and will be avoided by this project. Within site CA-RIV-7394, a thin, near continuous scatter of artifacts (mainly ceramic sherds) [redacted] 16 isolated artifacts, and 17 loci were recorded. Three of these loci were then combined as one locus. Including the previously recorded loci, there are 25 total loci at this site. No subsurface material was identified during test excavations of CA-RIV-7394 in July 2005. As a result of this investigation, the boundaries of Late Prehistoric site CA-RIV-7394 [redacted] have been further defined and redrawn. Site CA-RIV-7394, composed of 25 loci and two segments of Native American trails associated with the Late Prehistoric and Contact Period Desert Cahuilla village of *Mauūlmiī,* is more significant than previously reported.

Recommendations: Of the 21 prehistoric archaeological sites evaluated as part of this Class III inventory, the project has the potential to cause an adverse effect on three sites (CA-RIV-1331, CA-RIV-1349, and CA-RIV-7394) that qualify for inclusion on the National Register of Historic Places. Although eight sites (CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) on their own do not meet the eligibility requirements for listing on the National Register or California Register of Historical Resources, they are recommended as contributing elements of a proposed archaeological district. Also recommended as contributing elements are two unevaluated sites located on BLM-administered public lands (CA-RIV-5322 and CA-RIV-5323), as well as CA-RIV-1331, CA-RIV-1349, and CA-RIV-7394. These 13 sites [redacted] are part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. The sites include rock shelters, milling features, ceramic and lithic scatters, and a trail network connecting to each other and resources in the Santa Rosa Mountains.

The preferred and recommended mitigation for each of these archaeological sites is avoidance. This project has been redesigned to avoid impacts to [redacted] Travertine Corporation has established a planned conservation area that will avoid these sites and include landscaping elements that will form an access barrier between the sites and the Travertine development.

Considering the archaeological sensitivity of the project area, SWCA recommends that a qualified archaeologist monitor all construction ground-disturbing activities occurring in native sediments/soils. SWCA also recommends a Native American monitor be retained, and further recommends that prior to initiation of ground disturbing activities, qualified archaeologists conduct a worker cultural awareness training session. In addition, as outlined in the appended Monitoring and Discovery Plan, in the event that cultural resources are discovered during construction grading, trenching, and/or excavation when a monitor is not present, project personnel should halt such activities in the immediate area and notify a qualified archaeologist to evaluate the resource.

Disposition of Data: This report will be filed with the Eastern Information Center, University of California, Riverside; the Bureau of Land Management, Palm Springs-South Coast Field Office; the Travertine Corporation; the Bureau of Reclamation, Lower Colorado Regional Office; and SWCA

Environmental Consultants, Mission Viejo. All field notes and other documentation related to the study will remain on file at the Mission Viejo office of SWCA.

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BLM DATA SHEET

[redacted]

UNDERTAKING INFORMATION/INTRODUCTION

Contracting Data: Travertine Corporation retained SWCA Environmental Consultants to conduct a Class III cultural resources inventory related to a planned residential development. The services included a literature review, Native American Sacred Lands file search, pedestrian survey, and limited subsurface testing of prehistoric archaeological site CA-RIV-7394.

Proposed access roads to the Travertine Corporation property impinge on Bureau of Land Management (BLM) and Bureau of Reclamation (BOR) lands, thus requiring consultation with these two federal agencies under Sections 106 and 110 of the National Historic Preservation Act (NHPA) (36 CFR 800). The BLM, by mutual agreement, has taken on the role of lead agency.

Permits: All cultural resources work was completed under BLM Cultural Use Permit CA-02-10 and Fieldwork Authorization No. 660-04-01 in 2004 and under Cultural Use Permit CA-05-07 and Fieldwork Authorization 660-05-04 in 2005 and BOR Archaeological Resources Protection Act Permit LC-CA-03-07. Copies of these permits are attached to this report as Appendix A.

Purpose: The current study was completed under the provisions of Section 106 of the NHPA (36 CFR 800) and the California Environmental Quality Act (CEQA).

The NHPA authorizes the maintenance of a National Register of Historic Places (NRHP) that facilitates the preservation of properties possessing integrity and meeting at least one of the following four criteria delineated at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000).

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

(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) that are associated with the lives of persons significant in our past; or
(c) that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
(d) that have yielded, or may be likely to yield, information important in prehistory or history.

Public Resources Code (PRC) SS5024.1, Section 15064.5 of the Guidelines and Sections 21083.2 and 21084.1 of the Statutes of CEQA were also used as the basic guidelines for the cultural resources study (Governor's Office of Planning and Research 1998). PRC SS5024.1 requires evaluation of historical resources to determine their eligibility for listing on the California Register of Historical Resources (CRHR). The purposes of the register are to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change (Office of Historic Preservation 1997). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above.

According to PRC SS5024.1(c)(1-4), as well as and Section 15064.5(a)(3)(A-D) in the revised CEQA guidelines (Governor's Office of Planning and Research 1998), a resource is considered *historically significant* if it meets at least one 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 installation, or represents the work of an important creative individual, or possesses high artistic values; or
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archaeological site is not an historical resource but meets the definition of a "unique archaeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section.

The format of this report follows *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (Office of Historic Preservation 1990).

Undertaking: The proposed project entails development of the Travertine property with a planned residential community, which includes two golf courses, two reservoirs, and a planned conservation area (open space). The federal undertaking includes the issuance of rights of ways across federal lands (BLM and BOR). Before the BLM can authorize a project that may affect cultural resources, it must consider the effects of its actions on non-federal lands.

The development of the Travertine property as a planned residential community may result in the destruction of portions of prehistoric archaeological site CA-RIV-7394 (formerly CA-RIV-1334 and CA-RIV-1341/1351), as well as other previously unknown cultural resources. This study was designed to locate any previously unknown cultural resources within Travertine property (totaling approximately 941 acres), to relocate previously recorded archaeological sites, and to determine the areal extent of CA-RIV-7394. Site CA-RIV-7394 was recorded mainly within [redacted] and the proposed project area. An additional element of the current study was to relocate prehistoric archaeological site CA-RIV-1342, previously recorded along the [redacted] extent of CA-RIV-7394, and determine its relationship to CA-RIV-7394 and the Travertine property. Determining the boundaries of these two prehistoric sites, CA-RIV-1342 and CA-RIV-7394, in relation to the Travertine property will assist Travertine Corporation in making decisions regarding development options relative to the sites' components.

Approximately 902 acres were surveyed during four separate periods as part of this Class III inventory. The survey was conducted mainly using 15-meter transects, as well as opportunistic transects depending on the terrain, and concentrated surveys of dense scatters. As discussed further in the section on Survey Methods, survey coverage included acreage owned by Travertine, Coachella Valley Water District, public lands administered by the BLM or BOR, and future Travertine Corporation land purchases. That section also remarks on areas excluded from the current survey.

The survey indicated CA-RIV-7394 was more significant than previously indicated, and confirmed the potential of this site to retain important information regarding the prehistory of the area. Based on this information, it became apparent that CA-RIV-7394 qualifies as a "historic property" and "historical resource" for listing in the NRHP and the CRHR, respectively. If CA-RIV-1342 were determined to be part of CA- RIV-7394, then it would also be eligible for listing.

SWCA submitted a Testing Plan for CA-RIV-7394 to the BLM in July 2005, which called for limited subsurface testing of CA-RIV-7394 in order to determine the extent of the site. Subsequent to the completion of site testing in July 2005, an additional informal survey was conducted in February 2006 to clarify the location of known sites at [redacted] in relation to Travertine versus BLM-administered public lands. A second informal survey was conducted in May 2006 in order to accurately record the [redacted] edge of site CA-RIV-7394 and the [redacted] edge of a planned buffer zone between the Travertine development and the edge of the site. During this site visit, a burned bone fragment was identified in association with one of the loci within site CA-RIV-7394. Although the fragment lacked diagnostic features, it is being treated as human and representatives of the Torres-Martinez Reservation will determine its disposition.

This final report details the methods and findings of the fieldwork, conducted to determine the impact of the proposed Travertine development to the integrity of CA-RIV-1342 and CA-RIV-7394. The report provides eligibility recommendations, precise boundary determinations, and management recommendations for the mitigation of potential adverse effects of the Travertine development to recorded sites. This report also includes a Monitoring and Discovery Plan for Unanticipated Cultural and Archaeological Discoveries, attached as Appendix D.

As of this writing, the project has been redesigned to avoid impacts to prehistoric archaeological site CA-RIV-7394, a NRHP eligible property, and to a number of unevaluated properties. No evidence was found of site CA-RIV-1342 at its previously recorded location. Travertine will be placing a conservation easement over its entire acreage covered by site [redacted]. In addition, Travertine plans to establish a conservation area [redacted]
Included within this conservation area are a number of known archaeological sites and Native American trails.

Project Limits: The Travertine project area, comprised of approximately 941 acres situated within the City of La Quinta, Riverside County, is surrounded by federally managed lands. This area is located on the U.S. Geological Survey (USGS) 7.5-minute Martinez Mountain (1981, Photorevised 1988) and Valerie (1956, Photorevised 1972) quadrangles within Sections 32 and 33 of Township 6 South, Range 7 East, and Sections 3, 4, and 5 of Township 7 South, Range 7 East (San Bernardino Base and Meridian).

The irregularly shaped Travertine project area is located mainly within Sections 4, 5, and 33 west of a planned southward extension of Madison Street. The southeastern toe of the project area is within the southwestern quadrant of Section 3. In the north, Travertine property includes the southern tip of Coral Mountain in the northwest quadrant of Section 33. A 12.36-acre parcel within the west-central area of Section 33 is not currently under Travertine ownership, but was covered by the intensive pedestrian survey.

[redacted]

This investigation included survey of five proposed access roads that impinge on BLM and/or BOR land (Figure 1; Table 1). Travertine Corporation now plans to use only three of the five proposed access roads (numbered 2, 3, and 4); paralleling the Section 3/34 and 33/34 boundary lines, and within the northeast

quadrant of Section 32. Access Roads 1 and 5, shown on Figure 1 along the section 3/10 boundary line and within the northeast quadrant of Section 28, are now **not** planned for construction.

Table 1. Proposed Access Roads

Planned Access Road No. *	Section	Roadway extension	Current Construction Plans
1	3/10 boundary line		Will **not** be used
2	3/34 boundary line	Avenue 62	Will be used
3	33/34 boundary line	Madison Street	Will be used
4	Northeast quadrant of Section 32	Jefferson Street	Will be used
5	Northeast quadrant of Section 28		Will **not** be used

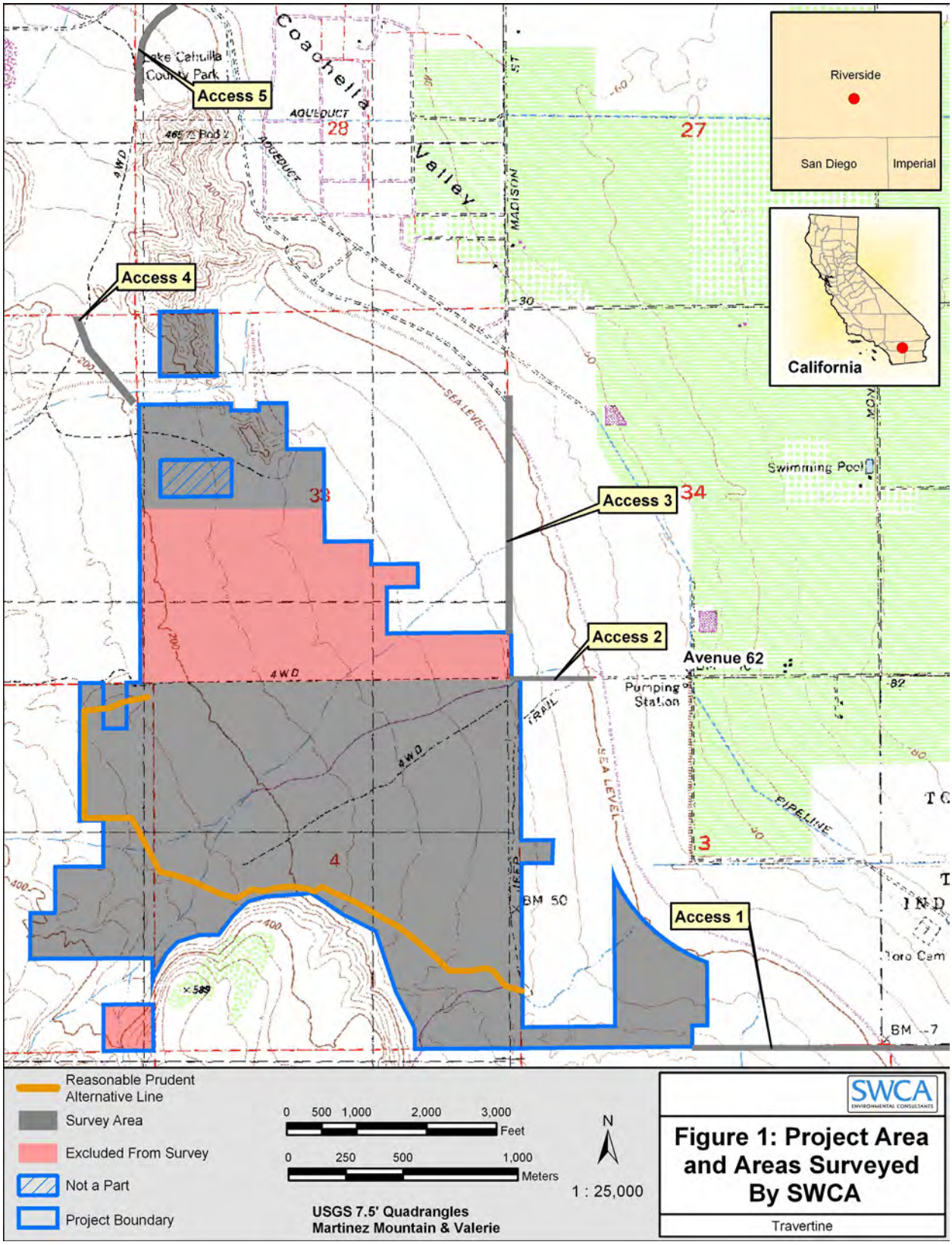
* Access Roads 1 and 5 shown on Figure 1 are now *not* planned for construction.

Figures: Figure 1 is a portion of the USGS 7.5-minute Martinez Mountain (1981, Photorevised 1988) and Valerie (1956, Photorevised 1972) quadrangles, California, depicting the specific location of the project area and the five proposed access roads, with an inset map showing the general vicinity of the study area, and the areas surveyed by SWCA. Previously recorded archaeological sites within the Travertine project area are shown on Figure 2. Figure 3 compares the results of surveys by SWCA and CRM Tech of site CA-RIV-7394. The sites and isolates identified during survey of the project area by SWCA are shown in Figure 4. Figure 5 depicts the placement of SWCA's test units and results of the investigation at site CA-RIV-7394. The expanded boundaries and recorded loci for site CA-RIV-7394 are detailed on Figure 6. Figure 7 shows the location of the 12 sites at the base of the MMRS in relation to Travertine property and BLM-administered public land.

Project Personnel: Dr. Nancy Sikes was the principal investigator for this project. SWCA archaeologists Peter Paige, M.A., and Michael Tuma, M.A., conducted the first survey in February 2004; Michael Tuma (field supervisor), Luis Burgos, Michael Cruz, Maria Garrity, and Stephen O'Neil, M.A., conducted the March 2005 survey; Stephen O'Neil and Kevin Hunt conducted the November 2005 survey. The July 2005 fieldwork was carried out by Stephen O'Neil (crew chief), Jessica DuBusk, Kevin Hunt, Gary King, Michael Tuma (field supervisor) and Luis Burgos. A Testing Plan for site CA-RIV-7394 was prepared in June 2005 by Dr. Nancy Sikes, with contributions by Mr. Tuma and Mr. Maxon. Mr. O'Neil represented SWCA during the informal site visits in February and May 2006, and escorted the Riverside County Deputy Coroner, Deborah Gray, in June 2006. This report on the results of the Class III Inventory, Evaluation, and Limited Site Testing was written by Mr. O'Neil and Dr. Sikes, with contributions by Mr. Tuma.

A Native American monitor from the Torres-Martinez Reservation, Gary Resvaloso, was present each day during the testing program in July 2005. In addition, Joseph Loya, Manager of the Torres-Martinez Reservation Department of Properties, visited the fieldwork on 11 July 2005. Native American monitor Mr. William Contreras was present during the two informal surveys in February and May 2006. A tribal elder, Mr. Ernie Morrero was onsite with the Deputy Coroner.

Wanda Raschkow, BLM Palm Springs-South Coast Field Office CRS, visited the field operations during the site testing on July 14, 2005. Ms. Raschkow also represented the BLM during the informal site visits in February and May 2006.


Riverside
San Diego
Imperial
California
Access 5
Access 4
Access 3
Access 2
Access 1
Coachella
Valley
Lake Cahuilla County Park
AQUEDUCT
MADISON ST
SEA LEVEL
Swimming Pool
Avenue 62
Pumping Station
PIPELINE
TRAIL
4WD
BM 50
Reasonable Prudent Alternative Line
Survey Area
Excluded From Survey
Not a Part
Project Boundary
0 500 1,000 2,000 3,000 Feet
0 250 500 1,000 Meters
N
1 : 25,000
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
SWCA
Figure 1: Project Area and Areas Surveyed By SWCA
Travertine

SETTING

NATURAL

Geography

The Travertine project site is located in the city of La Quinta, Riverside County, California, in the western margin of the Coachella Valley. The Coachella Valley is in the northern portion of the Salton Trough, the southern portion of which contains the Imperial Valley and the Salton Sea. The Coachella Valley is considered the westernmost extension of the Colorado Desert. The Colorado Desert is south of the Mojave Desert, and is bordered on the west by the Peninsular Range and the Pacific Coastal Plain, the Colorado River to the east, and the Gulf of California to the south. It is essentially within today's Imperial, Riverside, and San Diego Counties.

The Coachella Valley is bordered by the Little San Bernardino, Cottonwood, and Orocopia Mountains on the north and east, with the Santa Rosa and San Jacinto Mountains on the western border. The Santa Rosa and San Jacinto Mountains are the northernmost extension of the Peninsular Range. The mountains reach elevations from 1,800 to over 3,000 m (6,000 – 10,000 feet) and have a pronounced rain shadow effect in the Coachella Valley (Wilke 1978).

The southern portion of the Coachella Valley, including the eastern extent of the project area, was at one time beneath the freshwaters of Holocene-Epoch Lake Cahuilla. The last high stand of the lake dates from A.D. 1300 to A.D. 1580 (Buckles and Krantz 2005:2, Waters 1983; Wilke 1978), with a brief inundation in the mid to late 1600s (Laylander 1995). Lake Cahuilla once filled the Salton Trough to an average elevation of about 12 m (40 feet) above sea level, varying between 7.5 – 15 m (25 – 50 feet) in elevation. The lake has a lengthy history of periods of filling and desiccation, with the last high stand filling the basin to an elevation of about 12 m (40 feet) (Wilke 1978; Waters 1983). At maximum, the lake was about 95 m (315 feet) deep, 55 km (34 miles) wide, and 185 km (115 miles) long. The shore of the most recent series of stands is lined by whitish, freshwater lime deposits (called travertine or tufa), which are highly visible along the slopes.

Throughout the Holocene, a series of lakes collectively referred to as Lake Cahuilla (Lake LaConte, Blake's Sea) were formed by the western diversion of the Colorado River into the Salton Trough when natural sediment barriers blocked the river's flow south to the Gulf of California. Today's Salton Sea, about 19 km (12 miles) to the southeast of the project area, is technically an agricultural drainage reservoir. At approximately 69 m (227 feet) below mean sea level, 90 percent of its inflow is runoff from agricultural fields in the Imperial, Coachella, and Mexicali Valleys.

The gently sloping land surface within the current Travertine project area (Photograph 1) ranges from sea level to 122 m (400 feet) above sea level. Broad, sloping alluvial fans comprise the majority of the project area, with the eastern portion abutting or extending beyond the 12 m (40-foot) shoreline of former Lake Cahuilla. The surface soil is either a fine-grained sandy material, deposited by the former lake or eroded sandy gravels and sandy loam material washed down from the mountains. Many of the fan surfaces are eroded with relatively small channels. Toro Canyon contains a larger drainage. The soil surface appears to be relatively stable, with many of the fingers between washes containing desert pavement. There are some small sandy dune-like alluvial deposits where large washes meet the old shoreline.

The rounded terminal end of the Martinez Mountain Rock Slide, a 4.5 km (7-mile) long boulder slump of mountain slopes, abuts the southern portion of the project area. Two natural rockshelters, which were occupied during prehistory, were created by this slide. In the northern extent of the Travertine project site

there is a small steep ridge of Mesozoic granite rock, now isolated by sandy alluvium from the nearby Mesozoic granitic mountains. Lake Cahuilla covered the eastern edge of this ridge, leaving behind a tufa deposit, referred to locally as the "Coral Reef." Coral Mountain would have been a rock island relatively close to the lakeshore.

Photograph 1. Overview of project area. View to the north.

Climate

The climate of the Coachella Valley is semi-arid, with large seasonal extremes of temperature, precipitation, and wind patterns due to the funnel effect created by the Sea of Cortez to the south and California's inland valleys to the north. Summer temperatures may reach 125 degrees Fahrenheit (52ºC), while frost may occur in December and January, with snow into late spring in the mountains. The western mountains create a rain shadow effect, so very little precipitation reaches their eastern slopes or the floor of the Coachella Valley. Most precipitation there occurs in the winter, with an average annual rainfall of 8.1 cm (3.2 inches) recorded at Indio. Occasional summer tropical storms move north into the valley from the Gulf of Mexico and can produce flash flooding events. A number of washes empty into the valley from the surrounding mountains. Runoff from any of the seasonally active streams within these washes seldom flows beyond the foot of the mountains, and quickly sinks into the alluvial fans at the mouths of the canyons (Wilke 1978). Historically, the indigenous Cahuilla people situated their permanent settlements at the mouths of such canyons and dug wells into these alluvial fans to acquire water.

Flora/Fauna

The Travertine project site is within the Creosote Bush Scrub Plant Community, characteristic of well-drained fans and valleys in deserts below 1,067 m (3,500 feet). The plants consist primarily of shrubs two to

ten feet tall, widely spaced, and often going dormant between rainy seasons (Munz and Keck 1973:14). Shrubs occurring within the project area included creosote (*Larrea tridentata*), indigo bush (*Dalea fremontii*), blue palo verde (*Cercidium floridum*), cat-claw acacia (*Acacia greggii*), burrobush (*Ambrosia dumosa*), cheesebush (*Hymenoclea salsola* var. *salsola*), chaffbush (*Amphipappus fremontii* ssp. *fremontii*), littleleaf ratany (*Krameria erecta*), silver cholla (*Opuntia echinocarpa*), pencil cholla (*Opuntia ramosissima*), ocotillo (*Fouquieria splendens*), and barrel cactus (*Echinocactus acanthodes*). During the March 2005 survey, following a winter of heavy rains, numerous annual species were observed, including primarily common phacelia (*Phacelia distans*), cryptanthas (*Cryptantha* spp.), rock daisy (*Perityle emoryi*), woolly plantain (*Plantago ovata*), and poppies (*Eschscholzia californica*), among many others. Annual non-native, invasive Mediterranean grasses (*Schismus* spp.) were also observed in abundance.

Native Americans used many of plants observed on the project area, or known to be part of the Creosote Bush Scrub Plant Community. These include chia (*Saliva columbariae)*, palo verde (*Parkinsonia aculeata*), desert willow (*Chilopsis linearis*), beavertail cactus (*Opuntia* sp.), silver cholla (*Opuntia echinocarpa*), jimson weed (*Datura wrightii*), desert tobacco (*Nicotiana trigonophylla*), groundcherry (*Physalis crassifolia*), and indigo bush. Plants were used for drinks, medicines, soap, dyes, construction materials, fuel and tools; plant fibers were used for thread, nets and basketry (Bean 1972). Chia seeds are highly nutritious and were either eaten as dry seeds or ground into flour. The seeds were said to convert unpalatable water into a refreshing drink. The seeds of many other plants, such as cat's claw, palo verde, desert willow, and ironwood, were also used as food. Numerous varieties of cactus, such as the beavertail, were abundant and provided leaves, stalks, fruit and seeds for food (Balls 1962:25; Bean 1972:40-43). The indigo bush, observed in the project area, (when steeped in water) creates a yellow dye that was used for coloring deer skins and dyeing fibers for use in creating patterns in baskets (Balls 1962:77).

While the Cahuilla utilized hundreds of plants, the most important species included mesquite (*Prosopis juliflora*), acorns (six species of oak, *Quercus* spp.), screw beans (*Prosopis pubescens*), piñon nuts (*Pinus monophylla*), cacti fruit (*Opuntia* spp.), and agave (*Yucca whipplei*). To a lesser degree several hard seed plants, berries, tubers, and greens were gathered as well (Bean 1978:578). The mesquite blossoms, which are abundant in June, were roasted and could be dried; the pods (available in July and August) were either eaten fresh or ground into flour. Additionally, mesquite provided material for construction (Bean 1972:38). Although the study area contains a number of economically useful plants from the Creosote Bush Scrub plant community of the Lower Sonoran Desert ecological zone, the Cahuilla acquired 75% of their vegetal diet from the Upper Sonoran and Transition environmental zones (Bean 1978:576). These higher elevations include the range of the oak and piñon groves and agave stands. The collection of plants from diverse localities required that all the Cahuilla clans undertake seasonal rounds of harvesting and gathering.

Jimson weed is a hallucinatory plant that was used in various ceremonies such as the boys' initiation ceremony. A boy's ability to contact the supernatural realm was made apparent while he was under the influence of the drug (Bean 1972:142-143). The crushed plant was also used externally as a cure for rattlesnake and tarantula bites, and the leaves were crushed, dried, and smoked as a cure for asthma (Balls 1962:67).

Animals available for exploitation by the local indigenous population included: mule deer (*Odocoileus hemionus*), desert bighorn sheep (*Ovis canadensis*), desert cottontail (*Sylvilagus auduboni*), black-tailed hare (*Lepus californicus*), Gambel's quail (*Callipepla gambelii*), mourning dove (*Zenaidura macroura*), mice (*Perognathus* spp.), kangaroo rats (*Dipodomys* spp.), and various types of reptiles. Predators include coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), and mountain lion (*Felis concolor*).

When Lake Cahuilla filled the southern portion of the Coachella Valley, including the eastern extent of the project area during the Holocene, the resource base available to local indigenous populations would have been greatly expanded. Additional resources would have included abundant fish, shellfish, migratory and year-round waterfowl, and lake margin or marsh plants, as well as an increased number of local animals and birds attracted to the fresh lake waters.

CULTURAL

Prehistoric Period

California's southeastern desert region has a long history of human occupation, with dates at the start of the early Holocene stretching back to circa 10,000 years B.P. (Moratto 1984:96-97; Schaefer 1994:62). This now-arid region includes the Colorado and Mojave Deserts, located east of the Sierra Nevada, Peninsular, and Transverse ranges. Prehistoric material culture in this region has been categorized according to periods or patterns that define technological, economic, social and ideological elements. Within these periods, archaeologists have defined patterns or complexes specific to prehistory within the desert region, including the current project area.

A cultural sequence for the Colorado Desert has been recently summarized by Schaefer (1994) under three major periods: *Paleoindian*, *Archaic*, and *Late Prehistoric*. These periods date between ca. 10,000 – 6000 B.C., 6000 B.C. – A.D. 500 and A.D. 500 – Historic Contact, respectively. The introduction of pottery in this area separates the *Archaic* from the *Late Prehistoric Period*. The *Archaic Period* is divided here into *Early* and *Late,* dating between ca. 6000 – 2000 B.C. and 2000 B.C. – A.D. 500. In the Great Basin, the Archaic is also referred to as the Desert Culture (Jennings 1964; Warren 1967; Moratto 1984). Following numerous elements of earlier syntheses for California's desert region (e.g., Rogers 1929, 1939, 1966; Warren 1980, 1984), the cultural patterns within these broad periods are defined in this area as the *San Dieguito Complex, Pinto Period, Gypsum Period,* and *Patayan Period*. The Patayan Period is further subdivided into three periods, *Patayan I–III* (Rogers 1945; Waters 1982). Table 2 illustrates this relevant chronological framework for the Colorado Desert.

The following discussion of each period is derived from artifact assemblages throughout the desert region. Within the Colorado Desert, there are no documented Paleoindian sites, and scant evidence for the Early Archaic. As noted by Schaefer (1994:65), few stratified archaeological sites within the Colorado Desert, such as Indian Hill Rockshelter in Anza-Borrego Desert State Park, have been dated to the Late Archaic, although recent excavations within the Coachella Valley now add to our knowledge of the Late Archaic in this area (Love and Dahdul 2002). Within the Coachella Valley area, however, the majority of excavated sites date to the Late Prehistoric or Contact Periods, discussed below in the section on Lake Cahuilla.

Table 2. Colorado Desert Cultural Chronology

Years A.D. / B.C.	Period	Cultural Pattern
A.D. 500 – Historic Contact	Late Prehistoric Period	Patayan I – III
2000 B.C. – A.D. 500	Late Archaic Period	Gypsum Period
6000 – 2000 B.C.	Early Archaic Period	Pinto Period
10,000 – 6000 B.C.	Paleoindian Period	San Dieguito Complex

Paleoindian Period (10,000 – 6000 B.C.)

During the *Paleoindian Period*, in contrast to the dry climate of today, California's desert regions during the late Pleistocene and the early Holocene contained a series of large, pluvial lakes. Archaeological evidence suggests that early Holocene hunter-gathers of the desert region were well adapted to the wetland environments supported by these lakes. Sites were typically located on or near the shores of former pluvial lakes and marshes, and have artifact assemblages marked by their diversity of flaked-stone artifacts. Such sites, however, have not been documented for the Colorado Desert region, including for the nearly 10,000-year-old pluvial shoreline of Lake LeConte (now referred to as Lake Cahuilla) (see Moratto 1984:96).

The *San Dieguito Complex* is a well-defined expression or cultural pattern of the *Paleoindian Period* in the California desert region. Although named for the cultural sequence in western San Diego County (Rogers 1929, 1939), the complex now incorporates additional local patterns and covers the Colorado and Mojave Deserts and the western Great Basin (referred to as the "Central Aspect") (Rogers 1966; Warren 1967). Leaf-shaped points and knives, crescents, and scrapers characterize the artifact assemblages throughout the region. To reduce terminological confusion, Moratto (1984:92) subsumed the numerous local patterns (including the Lake Mojave Period of Warren 1967) under the overarching *Western Pluvial Lakes Tradition* (WPLT), first defined by Bedwell (1970). Recent literature on the prehistory of the Colorado Desert, however, typically references the Paleoindian Period or San Dieguito Complex, rather than the WPLT.

Early Archaic or Pinto Period (6000 – 2000 B.C.)

As the environment transitioned from the pluvial conditions of the Pleistocene to the more arid Holocene climate, many of the lakes and wetlands present during the *Paleoindian Period* began to dry up. By the *Early Archaic* or *Pinto Period*, many of these wetlands had disappeared. Desert populations appear to have adapted to these more arid conditions by withdrawing to the margins of the desert or concentrating around the few oases still present within it (Warren 1984:413-414). A brief period of moister conditions may have lead to a temporary reoccupation of the desert region between 4500 and 3500 B.C. However, evidence from the Mojave Desert and western Great Basin sites suggests that most Pinto Period sites were temporary, seasonal camps of small, highly mobile groups. Slab metates and manos (a millingstone set used to process hard seeds), shaped scrapers, and the Pinto projectile point characterize the artifact assemblages of the Pinto Basin Complex.

Late Archaic or Gypsum Period (2000 B.C. to A.D. 500)

The beginning of the *Late Archaic* or *Gypsum Period* coincides with the beginning of the Little Pluvial, a brief period of moister climatic conditions. By the second half of the Gypsum Period, arid conditions returned. Desert peoples appear to have been well adapted to these conditions by this time, however, and there is no notable drop in population. Gypsum Period sites are characterized by a wider range of diagnostic projectile points, such as the Gypsum and Elko types, as well as split-twig figurines, the latter commonly

preserved in caves (Warren 1984:416–417). While manos and metates continued to be employed, a new millingstone technology tool set, mortars and pestles, was introduced during this period of time. Based on ethnographic analogy and site location, Warren (1984:419) suggests that mortars and pestles were used to process mesquite pods. Near the end of this period, the bow and arrow also appear to have been introduced. In addition, this period is marked by an increased presence of exotic trade goods, including shell ornaments from the Pacific coast.

In the Coachella Valley, recent excavations at a dozen Late Archaic Period sites indicate occupation on the shores of Holocene Lake Cahuilla was restricted to specialized temporary camps, used for fishing, trapping, and gathering resources (Love and Dahdul 2002:81). In contrast, the range of types and density of artifacts at site CA-RIV-2936 north of La Quinta suggest to Love and Dahdul a permanent or semi-permanent occupation occurred in an area that was not dependant on lacustrine resources. Long-distance trade is evidenced in these assemblages by the presence of obsidian from the Coso volcanic field and shell beads from the Gulf of California.

Late Prehistoric or Patayan Period (A.D. 500 – Historic Contact)

The period from the end of the Archaic Period to European contact was a time of complex and ongoing change in material culture, burial practices, and subsistence focus. These changes most likely reflect both in situ cultural adaptations in response to shifts in environmental conditions, as well as influences from outside the area. The *Late Prehistoric* is identified with the introduction of pottery, and is marked by stronger regional differentiation. While the artifact assemblages are similar to those of the Gypsum Period, there are some notable differences. In addition to ceramics, the period is distinguished by the introduction of cremation in the archaeological record. In general, projectile points are smaller, and triangular in shape. Regional differentiation in the distribution of projectile point and pottery types was due, in part, to trade and influences of neighboring cultures in the Lower Colorado River and Great Basin. Such influence includes the major migration into southern California of Takic-speaking people (Uto-Aztecan language group) from the Great Basin region (Nevada, Utah, and eastern California) (Warren 1968).

Within the Colorado Desert region, the *Patayan* sequence cultural pattern is divided into three periods with different pottery types and regional site distributions. Cottonwood Triangular and Desert-Side Notched projectile points, the change from extended inhumations to cremations, the introduction of pottery, networks of trail systems (with pot-drops and trail-side shrines), and the late introduction of small-scale agriculture characterize the Patayan period in general. Pottery types are increasingly common throughout the period, and include brown wares manufactured from upland clay sources (e.g., Tizon Brown Ware), and buff wares made from lowland sedimentary clays (e.g., Colorado Buff Ware). Material culture also included clay figurines and pipes, bedrock grinding slicks and mortars, worked bone tools, and rock art. Exchange networks are indicated by shell beads from the coast and Gulf of California, wonderstone from Rainbow Rock near today's Imperial City, and obsidian from the Obsidian Butte source at the southern end of today's Salton Sea, which at times was covered by the waters of Holocene-Epoch Lake Cahuilla. As discussed further below, the cyclical filling and desiccation of Lake Cahuilla dictated the settlement patterns in the Salton Trough and Coachella Valley during this period.

During *Patayan I* between ca. A.D. 800 – 1050, mobile groups settled seasonally along the Lower Colorado River, practicing a mixed hunter-gatherer and horticultural economy. Their toolkit included pottery and Cottonwood Triangular and Desert-Side Notched projectile points. The agricultural-based Hohokam on the upper Gila River likely influenced this cultural pattern. *Patayan II* between ca. A.D. 950 – 1500 is characterized by the spread of these cultural traits from the Colorado River into the Colorado and Mojave Deserts. It also coincides with the infilling of Lake Cahuilla, as well as locally manufactured new ceramic types, including Tizon Brown Ware in the project area. *Patayan III* from A.D. 1500 to

European contact is marked by the recession of Lake Cahuilla, specific pottery types (Colorado Buff Ware and painted pottery), and the practice of small-scale agriculture.

Lake Cahuilla

The majority of the sites excavated in the Coachella Valley area date to the Late Prehistoric or Contact Periods. Archaeological research has been conducted along the old shoreline of Lake Cahuilla in an attempt to study human adaptation to the lake environment. The first thorough analysis was based on data from four sites located along the northwest lakeshore of the now desiccated lake and was conducted by Wilke in the mid 1970s (Wilke 1978). Desert Side-Notched and Cottonwood Triangular projectile points were common in the sites. Colorado Buff Ware and Tizon Brown Ware were present in the ceramic assemblage. Quantities of shell beads made from both Gulf of California and Pacific coast shell species are present. Analysis of the material indicated dates from about A.D. 800 to A.D. 1500 during *Patayan Periods I–III* (Wilke 1978:56).

Analysis of human coprolites and floral and faunal remains indicated that shellfish, fish, aquatic birds, freshwater marsh plants, and animals and plants from both the adjacent lowlands and uplands contributed to the subsistence base. Furthermore, the analysis showed that some of the resources were likely obtained year round, while others were collected only seasonally, when they were apparently at a maximum productivity near the site (Wilke 1978). These data, combined with an interpretation for a stable shoreline for a duration of several hundred years, led Wilke to postulate a large sedentary population lived in villages along the northwest shore of Lake Cahuilla. The residents would have relied heavily on lacustrine resources, with a lesser dependence on plant and animal resources in outlying areas (Wilke 1978:127–129).

In contrast to Wilke (1978), Weide (1976) argued that residence on the lakeshore was temporary and limited to small groups. This alternative model of a subsistence and settlement system was, in part, based on an interpretation of a fluctuating shoreline, with an approximate 50-year cycle, that would have prevented large, permanent settlements. According to her model, small groups of hunters and gatherers opportunistically moved between the mountains and the lakeshore.

Subsequent studies along the east and southwest shores of Holocene Lake Cahuilla support Weide’s model rather than Wilke's. This research indicates that shoreline occupation was limited to short-term use on a seasonal basis (e.g., Gallegos 1986; Pallette 1993; Schaefer 1986; Sutton and Wilke 1988). Such research includes sites in the La Quinta region (Sutton and Wilke 1988), including two rockshelters near Toro Canyon (Schaefer et al. 1993). These sites typically have shallow midden deposits with a low to high density of artifact scatters. As noted by Weide, the location of these temporary camps between the mountains and the fresh lake waters would have provided access to natural resources from a variety of ecotones.

After periodic episodes of infilling and recession, Lake Cahuilla is believed to have receded for the last time around A.D. 1580 (Buckles and Krantz 2005:2; Waters 1983), with a brief inundation in the mid to late 1600s (Laylander 1995). Populations followed the receding shoreline while continuing to exploit the dwindling resources. Archaeological excavations of stone fish traps, nearby associated houses and middens situated at 95 feet below mean sea level produced an abundance of fish bone. Hundreds of stone fish traps have been recorded during this period, extending over 20 km southward from the project area to Travertine Point. Fish bone is also reported from archaeological deposits at 103 feet and 120 feet below mean sea level near Thermal Airport (Wilke 1978:110). Finally, the water became too saline to support freshwater species.

Final desiccation of Lake Cahuilla certainly had an impact on the populations dependent on the lake. However, since these mobile groups were already highly adapted to a diversity of resource strategies, including desert, mountain, lake and marsh habitats, they would simply have shifted their subsistence emphasis. For example, an increased exploitation of agave is evidenced at this time (Shackley 1984). This shift in resource procurement during *Patayan III* likely did not result in major population movements for an existing, flexible, hunter-gatherer settlement and subsistence strategy. The recorded abundance of sites near the end of this period is likely the result of a gradual population growth combined with seasonal scheduling and continued mobility.

Evidence exists of several partial infillings of Lake Cahuilla to sea level sometime between A.D. 1420 and A.D. 1700. The possibility of partial infilling of the lake after its final recession in A.D. 1580 is further supported by the oral history of the Cahuilla Indians:

> When questioned about the shoreline and watermarks of the ancient lake, the chief gave an account of a tradition they have of a *great water (agua grande)* that covered the whole valley and was filled with fine fish. There were also plenty of geese and ducks. Their fathers lived in the mountains and used to come down to the lake to fish and hunt. The water gradually subsided 'poco,' 'poco,' (little by little), and their villages were moved down from the mountains, into the valley it had left. *They also said that the waters once returned very suddenly and overwhelmed many of their people and drove the rest back to the mountains* [emphasis added] (Blake 1856:98 in Wilke and Lawton 1975:11–12).

Recent archaeological excavations (Schaefer et al. 1993; Pallette and Schaefer 1995) include two Coachella Valley rockshelters located in Toro Canyon at the base of the Martinez Mountain Rock Slide, which bounds a portion of the current project area on the south. Dated to the Late Prehistoric, sites CA-RIV-1331 and CA-RIV-1349 are located only 600 m west of the 12 m Lake Cahuilla high stand. The artifact assemblages (e.g., fish bone, shellfish, ceramic sherds, lithics, milling stone fragments) indicate that both sites were temporary camps, inhabited seasonally for the procurement of fish from the lake and plants from the surrounding desert. A small lagoon or embayment was located 600 m east of the sites that would also have provided important plant resources. Mesquite forests may have also been supported in this area. A network of Native American trails extends eastward toward the prior lakeshore as well as between the two sites.

The data indicate that sites CA-RIV-1331 and CA-RIV-1349 were part of a regional settlement system during the Patayan II Period (Schaefer et al. 1993; Pallette and Schaefer 1995). The artifact assemblages contain a high frequency of Tizon Brown Ware. Since this ceramic type was produced from upland clay sources, this frequency is explained by the close proximity of the sites to the Santa Rosa Mountains. Along with ethnographic and ethnohistoric accounts, the predominance of Tizon Brown Ware suggests residential bases were located in more productive or strategic upland environments (e.g., Pinyon-Juniper, Upper Sonoran) rather than along the desertic Lake Cahuilla shoreline. The lack of Patayan III pottery types at the sites supports a Patayan II occupation.

After the final desiccation of Lake Cahuilla, permanent villages had been established on the valley floor by the end of the Patayan III Period. Ethnographic accounts indicate Toro village had been founded near the current project area. The Contact Period village of *Mauūlmiī*, part of the Toro village complex discussed further in the next section, was located on the lakebed and supported by large walk-in wells, as well as large mesquite groves. Villagers also continued to practice seasonal scheduling and mobility, gathering resources at the higher elevations when they became available.

Ethnography

The current project area lies within the ethnographic boundaries of the Cahuilla (Kroeber 1925). The name "Cahuilla" is possibly derived from a native word meaning a "master, boss" (Bean 1978:575). *'Ivi'lyu'atam* is the traditional term for the linguistically and culturally defined Cahuilla cultural nationality, and "refers to persons speaking the Cahuilla language and recognizing a commonly shared cultural heritage" (Bean 1972:85). It is thought that the Cahuilla migrated to southern California about 2,000 to 3,000 years ago, most likely from southern Sierra Nevada ranges of east-central California with other related socio-linguistic groups (Takic speakers) (Moratto 1984:559). The Cahuilla settled in a territory that extended west to east from the present-day City of Riverside to the central portion of the Salton Sea in the Colorado Desert,, and south to north from the San Jacinto Valley to the San Bernardino Mountains. While 60 percent of Cahuilla territory was located in the Lower Sonoran Desert environment, 75 percent of their diet from plant resources was acquired in the Upper Sonoran and Transition environmental zones (Bean 1978:576). The project area is within the eastern portion of Cahuilla territory, among the Desert Cahuilla group of the tribe.

The Cahuilla language and its dialects are a branch of the Takic family of the Uto-Aztecan linguistic stock. It is very closely related to the Cupeño language, whose speakers are on their southern border. The Takic branch also includes the Juaneño/Luiseño (or *Payomkawichum*) tribal group located to the west in today's Orange and San Diego Counties, the Gabrielino (or *Tongva*) in Los Angeles County to the northwest, and the Serrano to the north. By contrast, the Chumash language, north of the Tongva in the Santa Barbara region, is not related to any other known Native American language family or stock, representing an origin quite different from that of the Cahuilla (Mithun 1999:304, 390). North of the Chumash and south of the Cahuilla are languages considered part of the Hokan linguistic stock, specifically the Salinan language along the central coast of California and the Yuman family of languages to the south (Mithun 1999:390, 539, 577–587). Takic speakers are thought to have migrated into the lands of these two populations and separated them.

The Cahuilla had three primary levels of socio-political organization (Bean 1978:580). The highest level was the cultural nationality, encompassing everyone speaking a common language. Next were the two patrimoieties of the Wildcats (*tuktum*) and the Coyotes (*'istam*). Every clan of the Cahuilla fell into one or the other of these moieties. The third basic level consisted of the numerous political-ritual-corporate units called sibs, or a patrilineal clan (Bean 1978:580). While anthropologists have designated groups of Cahuilla clans by their geographical location into Pass, Desert, and Mountain, suggesting dialect and ceremonial differences between these groupings (Strong 1929), these social and linguistic areas were more a result of proximity than actual social connections. In reality, there was a continuum of minor differences from one clan to the next. Lineages within a clan cooperated in defense, in community subsistence activities, and in religious ceremonies. While most lineages owned their own village site and particular resource area, much of the territory was open to all Cahuilla people.

Each lineage within a sib had a defined territory that, among the Cahuilla of the Coachella Valley desert, was formed around springs in mountain canyons and the alluvial fans that spread from these canyons out onto the desert floor. Villages in these canyons were occupied year-round. They were situated to take maximum advantage of natural resources such as climate, water, food, and materials. Individuals or groups would periodically leave the villages for gathering, hunting, visiting, or trading activities. The sibs and lineages would maintain formal associations among themselves for protection, for religious ceremonies, and help with large projects. The relationship between these groups was maintained through intermarriage and ceremonial reciprocity (Bean 1972).

The founding lineage of a sib often possessed the position of ceremonial leader, and maintained both the ceremonial house and the clan ceremonial bundle that the leader used. The lineages had their own leaders

(*nét*) who, like the clan leader, inherited their positions usually father to son. The *nét* was responsible for the upkeep of community religious rituals and ritual objects. He was an "economic executive" for his people, directing the timing and location for the gathering of foods and hunting of game, their storage for future use, and ultimate distribution. He met with other lineage heads to discuss ceremonial rounds, boundary disputes, marriage arrangements, and other inter-clan matters. The *nét* had his own major assistant, the *páxa'*, who helped carry out the directions of the *nét*. Together, they were part of a council made up of other, smaller family heads, ceremonialists, and shamans who helped to inform and give advice to the *nét* (Bean 1978:580).

Villages were usually located in canyons or on alluvial fans near a source of accessible water such as springs or where large wells could be dug. Each family and lineage had their houses (*kish*) and granaries for the storage of food, and ramadas for work and cooking. There would often be sweat houses and song houses (for non-religious music). Each community also had a separate house for the lineage or clan leader. There was a ceremonial house, or *kíš ?ámnawet*, associated with the clan leader. Most major religious ceremonies of the clan were held there. Houses and ancillary structures were often spaced apart, and a "village" could spread out over a mile or two. In addition to the residences, each lineage had ownership rights to various resource collecting locations, "including food collecting, hunting, and other areas. Individuals also owned specific areas or resources, e.g., plant foods, hunting areas, mineral collecting places, or sacred spots used only by shamans, healers and the like" (Bean 1990:2).

Animals available for exploitation by the local indigenous population included; mountain sheep (*Ovis canadensis*), cottontail (*Sylvilagus auduboni*), jackrabbit (*Lepus californicus*), mice (*Perognathus* spp.), wood rats (*Dipodomys* spp.); quail and chukker (*Lophortyx* spp.), dove (*Zenaidura macroura*), and other birds; and various types of reptiles, amphibians and insects. Predators included mountain lion (*Felis concolor*), coyote (*Canis latrans*), wolf (*Canis lupus*), bobcat (*Lynx rufus*), and fox (*Urocyon cineroargenteus*).

While the Cahuilla utilized over 200 plants (Bean and Saubel 1972), the most important species representing food resources in these deserts and mountains included: two mesquite species, the screwbean and honey (*Prosopis pubescens* and *P. glandulosa*); six species of acorn-bearing oaks, including coast live oak (*Quercus agrifolia*), scrub oak (*Q. berberifolia*), and Engelman oak (*Q. engelmanii*); pine trees with piñon nuts (*Pinus quadrofolia* and other *Pinus* spp.); prickly-pear cacti with fruit and fleshy leaves (*Opuntia littoralis* and *O. basilaris*); and yucca with blossoms and flower stalks (*Yucca whipple* and *Y. schidigerai*). To a lesser degree, several hard seed plants, such as manzanita (*Archtostáphylos glauca* and *A. Pringlei*), sunflowers (*Helianthus annuus*), chia sage and other sages (*Salvia columbariae* and *Salvia* ssp.), lemonade berry (*Rhus trilobata*), wild rose (*Rosa californica*), and buckwheat (*Eriogonum fasciculatum*), coyote gourd or calabazilla (*Cucurbita feotidissima*), along with fruits, berries, tubers and greens, were also gathered (O'Neil 2001; Bean and Smith 1978:538-539). Among the most important tubers is amole (*Chlorogalum pomeridianum*) for tools and soap, while common greens included several *Chenopodium* spp., clovers (*Trifolium* spp.), Miner's lettuce (*Claytonia perfoliata*) and white sage (*S. apiana*), all to be found in the immediate region (Dale 1985). There are several native California berry-producing plants in this region, such as toyon (*Heteromelies arbutifolia*), grape (*Vitis girdiana*), blackberry (*Rubus ursinus*), and elderberry (*Sambucus mexicanus*). The elderberry was also gathered for medicine and tool manufacture. Numerous additional plants were used for medicines, twine, basketry, ornamentation, tools, and religious ceremonies (O'Neil 2001).

This would have been a highly productive environment, well suited to a sophisticated hunting and gathering economy. Some studies (cf. Bean and Lawton 1993) suggest that aboriginal people in southern California managed the structure and productivity of this environment through a combination of controlled burning, selective harvesting and pruning, and occasional replanting, seed broadcast, and possibly limited irrigation. Such practices can be likened to those known for the Neolithic Revolution in

other portions of the New World, Eurasia, and Africa. Human-induced burning, whether accidental or intentional for driving game or managing floral food and materials resources, may have influenced the development of fire-adapted plant associations over the past few thousand years. It has been variously suggested (e.g., Bean and Lawton 1993:37-42, 46-51; King 1993:296-298) that native burning helped create and maintain the park-like aspect of many California landscapes that was noted by early Spanish diarists, and which in places was still discernable as recently as the middle or late nineteenth century. The emphasis on fire suppression that began during colonial times and largely continues today may be partially responsible for the current broad distribution of brush and paucity of grasslands in areas that looked quite different to European explorers and missionaries (Timbrook et al. 1993:129-134).

The Desert Cahuilla had also adopted limited agricultural practices by the time Euro-Americans traveled into their territory. Bean (1978:578) has suggested that their "proto-agricultural techniques and a marginal agriculture" consisting of beans, squash and corn may have been adopted from the Colorado River groups to the east. Certainly by the time of the first Romero Expedition in 1823–24, they were observed growing corn, pumpkins, and beans in small gardens localized around springs in the Thermal area of the Coachella Valley (Bean and Mason 1962:104). By the 1850s, the inhabitants of Toro village were supplying food to travelers with crops produced at their village: "We camped at this place and were surrounded by crowds of Indians anxious to trade melons, squashes, corn, and barley, for pork, bacon, or other articles" (Hoyt 1948:19). The introduction of barley and other grain crops gives positive evidence for the introduction of European plants via the mission or local Mexican rancheros. Despite the increasing use and diversity of crops, there is no evidence that this small-scale agriculture was anything more than a supplement to Cahuilla subsistence, and it apparently did not alter social organization (i.e., had no effect on the basic division of labor or create new social roles).

A wide variety of tools and implements were employed by the Cahuilla to gather and collect food resources. For the hunt, these included the bow and arrow, traps, nets, slings and blinds for hunting land mammals and birds, and nets for fish in Lake Cahuilla. Rabbits and hares were commonly brought down by the throwing stick, but communal hunts for these animals utilized tremendously large nets and clubs. Foods were processed with a variety of tools, including portable stone mortars, bedrock mortars and pestles, basket hopper mortars, manos and metates, bedrock grinding slicks, hammerstones and anvils, woven strainers and winnowers, leaching baskets and bowls, woven parching trays, knives, bone saws, and wooden drying racks. Food was consumed from a number of woven and carved wood vessels and pottery vessels. The ground meal and unprocessed hard seeds were stored in large finely woven baskets, and the unprocessed mesquite beans were stored in large granaries woven of willow branches and raised off the ground on platforms to keep it from vermin. Pottery vessels were made by the Desert Cahuilla, and also traded from the Yuman-speaking groups across the Colorado River and to the south.

Pottery was introduced to the Cahuilla via trade from the Colorado River region during the Late Prehistoric period. The art of constructing pottery was later adopted by the Cahuilla, using the paddle and anvil technique. Typical culinary wares included a variety of jars, cooking vessels, and ladles. Ceramic pipes were also commonly manufactured and used. Ceramic ollas, typically large round pots with small necks, were used for storing seeds. Ollas were frequently cached in caves and rockshelters with foodstuffs sealed in to be used during hunting and gathering forays (Bean 1978:578–579).

The Cahuilla worldview derives from principals set forth in the tribe's origin myths. The creator gods were two brothers, *Mukat* and *Tamayowut*, *Mukat* being the older of the two. As they brought the earth, plants, minerals, people, and ritual objects into being, contests of will and power were played out between the two. *Mukat*, as the elder, was wiser and more patient in his rendering of things, and his vision of the world-to-be is that manifested in the world the Cahuilla live in today. In this manner, "the presence of power explain all unusual talents or unusual events and differences in cultural attainment, and all phenomena that contained *♣íva♣al* [power or energy] were capable of positive and negative actions"

(Bean 1978:582). Values of old age, patience, "correct action" in the sense of performing activities properly and deliberately, and reciprocity were taught to each generation through the oral narrative accounts of mythic stories. These virtues helped to maintain a balance with nature and within the community.

When Romero traveled through the project region in January 1823, he reported "…several rancherias [villages] between the mezquitales [mesquite forests] and the sierra [Santa Rosa Mountains] in both directions, which we knew because of the great amount of smoke that went up, and the Indians who came out to look at us at several points" (Bean and Mason 1962:48). Blake's description of this same village complex in 1853 tells of the use of mesquite bean meal as an important local food, and noted how the villages were "…located in thick groves of mezquit [mesquite] trees, which were quite abundant, and grew so thickly together that the Indian huts were completely hid.…We camped at this place and were surrounded by crowds of Indians anxious to trade melons, squashes, corn, and barley, for pork, bacon, or other articles." Underground water supported the large stands of mesquite, the major plant resource for the local Native Americans. The water was sufficiently close to the surface that the Desert Cahuilla were able to excavate their unique walk-in wells, 12 to 15 feet deep with steps. The water was used for both household purposes and irrigation of mesquite and the crops that were recorded by Blake (Bean et al. 1991:78).

Local Settlements

The Contact Period village of *Mauūlmiī* is regarded as the principal settlement at *Toro*, and Toro Canyon wash passes through [redacted]. According to Gifford, *Mauūlmiī* was "said to have been the home of the *Tamolañitcem*, and of the *Sawalakiktum* [clans], who before had lived at La Mesa with the *Nanhaiyum*" (Bean et al. 1991:62), but Gifford noted that neither of these names was used by the clans living in the area when he conducted his work in 1918. Strong reported that "the *Wakaīkiktum* ("night heron") and *Pañakauissiktum* ("water fox") clans were present at *Mauulmiī* in the late 1870s, and that later, in approximately 1895, the *Sēwahilem* [a.k.a. *Sawalakiktum*] ("mesquite that is not sweet") lineage joined them (Strong 1929:52).

The village of *Mauūlmiī* has been associated with several Late Prehistoric and Contact Period sites located along the alluvial fan of Toro Canyon. One of these was the site of a walk-in well at [redacted] Another site that is part of the Toro village complex of *Mauūlmiī* is the Toro Cemetery (CA-RIV-3209), [redacted] on Torres-Martinez Reservation land. Two additional prehistoric sites may also have been part of *Mauūlmiī*. [redacted], CA-RIV-368 also has a walk-in well, among other residential features. Further west, [redacted] is CA-RIV-369, described as a village site with house rings, pits, cremations, groundstone, and ceramics.

The [redacted] portion of site CA-RIV-7394, located on relict beach sands and previously recorded as Loci 5–8, was identified with *Mauūlmiī* by Gary Resvaloso of the Torres-Martinez Reservation while monitoring SWCA's test excavation phase (personal communication, July 2005). The [redacted] ravine out of the MMRS passes through the sand deposits, creating seasonal ponds of water and connecting it to the larger Toro Canyon wash system. The [redacted] portion of CA-RIV-7394 was apparently the [redacted] extension of *Mauūlmiī* village because of the availability of water in the temporary pools among the sand deposits. It is unclear, however, whether village settlement was always in a dispersed pattern, or if the residents moved back and forth to take advantage of the seasonal pools of water for irrigation purposes (Gary Resvaloso, personal communication July 2005).

Other local places of importance were three nearby villages, *Pal hīliwit*, *Temalsēkalet*, and *Pūichekiva*, all to the southeast in the Martinez Canyon alluvial fan. *Pal hīliwit*, "wide water," a village six and a half miles southeast of the Travertine project area, had a spring sufficient for irrigation (Bean et al. 1991:68). Three clans of the Coyote moiety lived at *Pal hīliwi;* the *Mūmlētcem* (who owned the spring here), the *Masūwitcem,* and the *Wītem* ("grasshopper"). Another village, situated to take advantage of the water coming from Martinez Canyon, was *Temalsēkalet*, "earth crack." Located six miles southeast of the project area, *Temalsēkalet* also had a well and "in several places the individual families carried on agriculture in a small way" (Strong 1929:51). *Temalsēkalet* was the village of the *Autaatem* ("high up") lineage, of the Wildcat moiety. Related to the *Awilem* lineage at *Pūichekiva*, "they shared with them food-gathering territories near the ancestral home" (Bean et al. 1991:89). Members of the Nombres family, who belonged to the *Awilem* ("dogs") clan (part of the Wildcat moiety), lived at *Pūichekiva* (Strong 1929:67).

The interspersing of Wildcat and Coyote lineages within the area is an example of how Cahuilla social organization was arranged to maintain a marriage network that formed relationships between families. To have both halves of the society in proximity assured that suitable marriage partners would be available.

The importance of water sources is apparent in the unusual proximity of these three Desert Cahuilla villages. While the Cahuilla had an extensive territory, covering much of the Coachella Valley, permanent villages could only be maintained where there was a year-round and accessible source of water. The mouth of Martinez Canyon was one of the places drawing the Cahuilla to the thick mesquite groves and the water. These groves apparently spread for miles throughout the area, as documented in the reports of the 19th century Euro-American travelers, and would have covered the project area up to the beginning of the 20th century. The Desert Cahuilla heavily exploited the local mesquite, other economically useful plants, which would have been present because of the more abundant water, and associated animals.

The village of *Pūichekiva* was disbanded at the beginning of the twentieth century when the water table fell. However, in 1906–1907 the Indian agency for the Torres-Martinez Reservation established a school and the agents' residence at the old village site. Over the years another small community, that is extant today, grew around the agency. The prehistoric and historic village site is known as the Martinez Historic Complex, and is designated CA-RIV-1292/H. The village was occasionally called Torres [Toro] by Euro-Americans, possibly after a past chief, though the actual villages of Martinez and Toro were several miles apart. The name Torres was combined with the generalized place name of Martinez (referring to the area around Martinez Canyon) for the Torres-Martinez Reservation that was established in 1876.

Historic Period

The first Europeans to explore the area that would become the State of California were members of the A.D. 1542 expedition of Juan Rodriguez Cabrillo. Cabrillo sailed along the coast of California, but did not explore the interior. Europeans did not attempt inland exploration until 1769 when Lt. Colonel Gaspar de Portolá led an overland expedition from San Diego to Monterey. This expedition of 62 people passed far to the south and west of the current study area (Brown 2001). Lt. Colonel Juan Bautista de Anza and company were the first Europeans to reach the Riverside County region with two expeditions through the area in 1774 and 1775. These expeditions originated in Sonora and traversed southwestern Arizona and southern California bringing colonists to the new territory for the first time. Both expeditions crossed through the Santa Rosa Mountains and San Jacinto Valley, 15 miles south of the current project area.

In November of 1810, there was an attack against Spanish hegemony as represented by Mission San Gabriel by "some 1,000 Indians, mostly Serrano with their allies from the desert rancherias such as *Angoyaba* (a Chemehuevi village) and a few daring Mojaves from the Colorado" (Mason 2004:46). The reason for the

revolt was likely the result of the Spanish link to a rapidly dwindling local Native American population caused by disease and conversion. After several months of sporadic warfare the Native communities were defeated, with men captured and sent to other missions and their families following. Two or three Cahuilla villages, allied to the Serrano through marriage ties, participated in the fighting and subsequent subjugation by the Spanish. Members of their clans were among those inhabitants of the San Bernardino Valley region and "even southwest of the San Gorgonio Pass [who] are included in the mass baptisms and marriages in 1811" (Mason 2004:47).

By 1819, several Spanish mission outposts, known as *assistencias*, were established near Cahuilla territory at San Bernardino and San Jacinto generating further contact and interaction between the western Cahuilla and the Europeans. Because this area is located inland, and on the eastern fringe of the Franciscan Order's mission system, interaction with Europeans was not as intense in the Desert Cahuilla region as it was on the coast. The topography and lack of water also made the area less attractive to colonists than the coastal valley regions for ranching and agriculture purposes. By the 1820s, however, the Pass Cahuilla were experiencing consistent contact with the ranchos of Mission San Gabriel, while the individuals and families of the Mountain branch of the Cahuilla were frequently employed by private rancheros as well as being recruited to Mission San Luis Rey.

The Romero-Pacheco Expedition during the winter of 1823 passed through the Coachella Valley in an unsuccessful attempt to establish a route from San Gabriel to Tucson via the upper Colorado River. They passed by the village of Toro with its great mesquite thickets on the north side and walk-in wells at the village site (Bean and Mason 1962:37). This scene has been identified as the village of *Pūichekiva*, located six miles south of the Travertine project area. The Toro Cemetery (CA-RIV-3209) is situated about 1000 meters (0.6 miles) from the easternmost extent of the proposed Travertine project. The cemetery, part of the Toro village complex, was recorded in 1987 along with a small scatter of ceramic sherds, some human bone, and a projectile point, as CA-RIV-3209.

By the 1830s, Mexican ranchos were located near Cahuilla territory along the upper Santa Ana and San Jacinto rivers, thus introducing the Cahuilla to ranching and an extension of traditional agricultural techniques. The Bradshaw Trail was established in 1862, and was the first major east-west stage and freight route through the Coachella Valley. Traversing the San Gorgonio Pass, the trail connected gold mines on the Colorado River with the coast. Bradshaw based his trail on the Cocomaricopa trail, with maps and guidance provided by local Native Americans. Journals by early travelers along the Bradshaw Trail told of encountering Cahuilla villages and walk-in wells during their journey through the Coachella Valley.

Government Land Office survey maps of 1856 indicate that the project area consisted of "rough and barren mountains." The "Indian Village Torros" is identified in Section 2 of Township 7S, Range 7E. The construction of a Southern Pacific Railroad line through the valley in 1877 acted as a catalyst for occupation and development of the area. By 1903, a Government Land Office survey had recorded a road from Indian Wells to Torres, approximately 2 miles east and northeast of the current project area.

The expansion of immigrants introduced the local Cahuilla to European diseases. The single worst recorded event was a smallpox epidemic in 1862-63, causing the death of a great many tribal members. By 1891, only 1,160 Cahuilla remained within what was left of their territory, down from an aboriginal population of 6,000–10,000 (Bean 1978:583-584).

Between 1875 and 1891, the United States Government set ten reservations aside for the Cahuilla within their territory. The Torres-Martinez Reservation, adjacent to the southeast edge of the current project area, was established in 1876. The reservation contains 18,223 acres in a somewhat checkerboard system, with 6,881 of those acres allotted to specific families descended from the clans who had long lived in this

region (Bean 1978:585). The tribal offices for this reservation are at the site of the old village of Martinez, or *Pūichekiva*, and a residential community continues to exist there.

Early settlement and agriculture in the valley by the European immigrants depended upon artesian wells until the construction of the Coachella Canal. The canal and distribution system were initiated in 1948 and completed by 1954. Modern-day Lake Cahuilla located north of the project area and part of the Riverside County Regional Park System, and the flood control levees and recharge system east of the project area were constructed in the 1960s and 1970s. The vineyard located within the project area was established prior to 1981. The primary historic and recent use of the project area appears to have been as a location for disposal of household and light commercial trash. There are several concentrations of cans, glass, landscaping debris, and household appliances lining the access road.

PREVIOUS ARCHAEOLOGICAL RESEARCH

The Eastern Information Center (EIC) located at the University of California, Riverside, conducted a review of its records on January 15, 2004 to determine if cultural resources were previously recorded within the project area. Information regarding archaeological sites and studies within a one-mile radius of the study area was compiled. A check was also made of historic maps, the NRHP, the California State Historical Resources Inventory, and the listing of California Historical Landmarks.

The record search, included as Appendix B, revealed that 30 cultural resources studies have been completed within a one-mile radius of the project area. Six of these studies involved the project area and a further six involved portions of the project area. Overviews of cultural resources in the general project area are provided in nine additional studies.

A total of 139 cultural resources have been recorded within a one-mile radius of the project area, including the project area itself. A complete list of these resources may be found in Appendix B, along with the results of the record search. The search of the NRHP and the Directory of Properties and Archaeological Determination of Eligibility lists from the Office of Historic Preservation (OHP) showed no listed properties within the project area.

According to the cultural resources files at the EIC, 18 archaeological sites and ten isolates have been previously recorded within the boundaries of the project area (Table 3; Figure 2). Eight of these sites border the MMRS [redacted] border of the Travertine property with the BLM; however, it was later determined by the BLM, with SHPO concurrence, that one of these (CA-RIV-1348) was not an archaeological site. The ten previously recorded isolates are not shown on the figure.

Table 3. Cultural Resources Previously Recorded within the Project Area

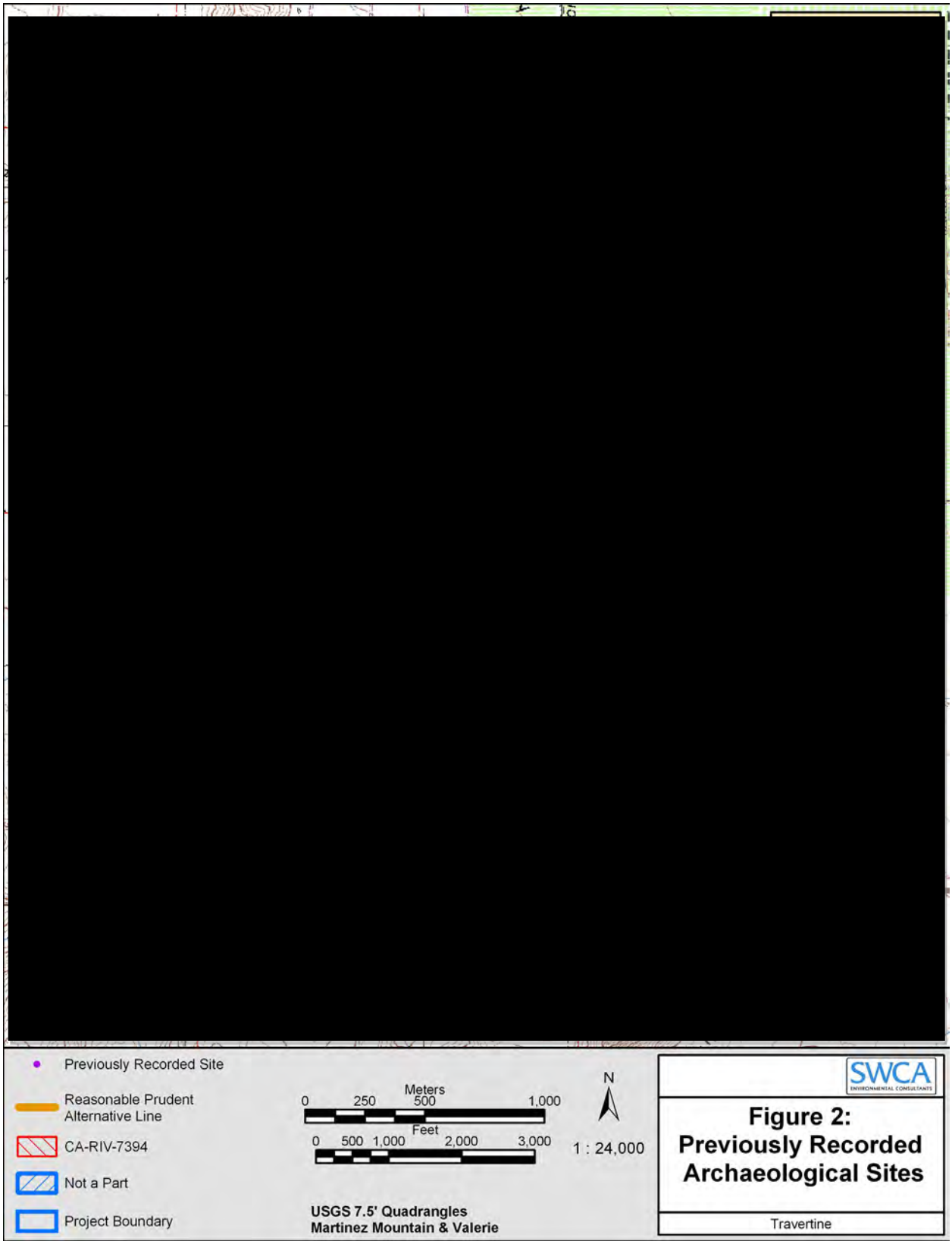
Primary No. or Trinomial	Description	Recorder and Date	Previous NRHP Eligibility Status	Current Land Ownership
CA-RIV-1331	Series of rockshelter camps at base of Martinez Mountain Rock Slide with rock alignments, and walls, rock ring, 2 milling slicks, and trail segments. Collected, excavated and mapped in 1992. Boulders to east have 4 milling slicks and 4 shallow mortars.	P. J. Wilke 1972; Brooke S. Arkush 1989; Schaefer, Pallette & Bean 1993; Schaefer & Pallette 1994; McManis 1994.	Determined eligible (1990, BLM with SHPO concurrence)	BLM

Table 3. Cultural Resources Previously Recorded within the Project Area

Primary No. or Trinomial	Description	Recorder and Date	Previous NRHP Eligibility Status	Current Land Ownership
CA-RIV-1334 (now within CA-RIV-7394)	Light scatter of ceramic sherds, mostly red-brown, with buff wares almost absent, 1 worked ceramic disc. Site considered to be a section of ancient lakeshore with an almost continuous scatter.	J. Craib 1972.	Recommended not eligible (Chace 1994)	BLM
CA-RIV-1341 (now within CA-RIV-7394)	Continuous ceramic sherd scatter with burnt rocks. Later re-recorded and combined with CA-RIV-1351; then combined within CA-RIV-7394.	P. J. Wilke 1972; B. S. Arkush 1990; B. McManis 1994; D. Ballester 2003 /J. J. Eddy 2004.	Recommended not eligible (Chace 1994)	BLM and Travertine
CA-RIV-1342	Large diffuse scatter of ceramic sherds on alluvial fan from Toro Canyon, just above shoreline. Evidence of pot hunting.	P. Wilke 1972; B. S. Arkush 1990.		BOR
CA-RIV-1348	Flat boulder-sheltered area with ceramic sherd scatter, at NE base of Martinez Mountain Rock Slide. Later determined not a site.	J. Craib 1972; Brooke S. Arkush 1989; B. McManis 1994.	Determined not a site (1990, BLM with SHPO concurrence)	N/A
CA-RIV-1349	Rock shelter with 6 associated bedrock milling features, one Tizon Brown Ware sherd, two quartz flakes, one burnt large mammal bone, within shelter. One hammerstone collected; 2 holes dug by vandals. At NE base of Martinez Mountain Rock Slide. Collected, excavated and mapped in 1992.	J. Craib 1972; Brooke S. Arkush 1989; B. McManis 1994.	Determined eligible (1990, BLM with SHPO concurrence)	BLM
CA-RIV-1351 (now within CA-RIV-7394)	Rock feature with burned material in area of continuous sherd scatter. Light scatter of ceramic fragments with 1 lithic fragment over a large area. Modern camps and pot hunting on site. Later combined with CA-RIV-1351; then combined within CA-RIV-7394.	R. Black 1972; P. Wilke 1972; B. S. Arkush 1990; B. McManis 1994; D. Ballester 2003 /J. J. Eddy 2004.	Determined not eligible (1990, BLM with SHPO concurrence)	BLM and Travertine
CA-RIV-3872	Bedrock milling station with three features on two boulders, with mano on one boulder. At NW base of Martinez Mountain Rock Slide.	Brooke S. Arkush 1990.	Determined not eligible (1990, BLM with SHPO concurrence)	Travertine
CA-RIV-3873	One milling slick on a boulder. At NW base of Martinez Mountain Rock Slide.	Brooke S. Arkush 1990.	Determined not eligible (1990, BLM with SHPO concurrence)	Travertine
CA-RIV-3874	One milling slick on a boulder; sherd of a pot 20 m to east; small scatter of approx. 25 Colorado Buff sherds NE of slick boulder. At N edge of Martinez Mountain Rock Slide.	Brooke S. Arkush 1990; A. Duffield 1990; B. McManis 1994.	Determined not eligible (1990, BLM with SHPO concurrence)	Travertine
CA-RIV-3875	Eleven Tizon Brown Ware sherds; appears secondary context.	Brooke S. Arkush 1990.	Determined not eligible (1990, BLM with SHPO concurrence)	Travertine
CA-RIV-3876	Twelve Tizon Brown Ware sherds and one quartz flake; appears secondary context, transported down fan by water.	Brooke S. Arkush 1990.	Determined not eligible (1990, BLM with SHPO concurrence)	Travertine

Table 3. Cultural Resources Previously Recorded within the Project Area

Primary No. or Trinomial	Description	Recorder and Date	Previous NRHP Eligibility Status	Current Land Ownership
CA-RIV-5319	Three pot drops with scattered fragments (50-100) of ceramics.	B. McManis 1994; CRM Tech 2004.	Recommended not eligible (Chace 1994)	Travertine
CA-RIV-5320	Pot drop, 6 sherds Tizon Brown.	B. McManis 1994.	Recommended not eligible (Chace 1994)	Travertine
CA-RIV-5321	Rock alignment, probable hearth.	B. McManis 1994.	Recommended not eligible (Chace 1994)	Travertine
CA-RIV-5322	Single milling slick station on a large boulder along base of Martinez Mountain Rock Slide.	B. McManis 1994.	Recommended not eligible (Chace 1994)	BLM
CA-RIV-5323	Single milling station on a flattish boulder along base of Martinez Mountain Rock Slide.	B. McManis 1994.	Recommended not eligible (Chace 1994)	BLM
CA-RIV-7394	Large site complex approx. 1,550 x 750 meters consisting of 10 loci that contain ceramic sherd scatters. Cremations, 2 segments of Native American trails, bedrock milling features, 2 projectile points, fire hearths, groundstone, chipped stone, and FAR. Encompasses previously recorded sites CA-RIV-1334 and CA-RIV-1351 (CA-RIV-1341 & -1351 previously combined).	D. Ballester 2003 /J. J. Eddy 2004.	Eligible (CRM Tech 2004)	BLM and Travertine
33-8919	Isolate – 1 sherd Tizon Brown ceramic.	B. McManis 1994.	N/A	Travertine
33-8920	Isolate – 1 sherd Tizon Brown ceramic.	B. McManis 1994.	N/A	Travertine
33-8921	Isolate – 1 sherd Tizon Brown ceramic.	B. McManis 1994.	N/A	Travertine
33-8922	Isolate – 1 sherd Tizon Brown ceramic.	B. McManis 1994.	N/A	Travertine
33-11347	Isolate – 1 sherd Tizon Brown ceramic.	Brooke S. Arkush 1990.	N/A	Travertine
33-11348	Isolate -- 1 sherd Tizon Brown ceramic.	Brooke S. Arkush 1990.	N/A	Travertine
33-11349	Isolate -- 1 sherd Tizon Brown ceramic.	Brooke S. Arkush 1990.	N/A	Travertine
33-11350	Isolate -- 1 body sherd Buff Ware ceramic.	Brooke S. Arkush 1990.	N/A	Travertine
33-11351	Isolate – 1 quartz flake.	Brooke S. Arkush 1990.	N/A	Travertine
33-11352	Isolate – 1 sherd Tizon Brown ceramic.	Brooke S. Arkush 1990.	N/A	Travertine


Previously Recorded Site
Reasonable Prudent Alternative Line
CA-RIV-7394
Not a Part
Project Boundary
Meters
0 250 500 1,000
Feet
0 500 1,000 2,000 3,000
1 : 24,000
N
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 2:
Previously Recorded
Archaeological Sites
Travertine

FOCUS ON FIVE PREVIOUSLY RECORDED SITES

Of the 18 archaeological sites located within the Travertine property, detailed investigation by SWCA was limited to five previously recorded sites: CA-RIV-1334, CA-RIV-1341, CA-RIV-1342, CA-RIV-1351, and CA-RIV-7394. The history of archaeological work conducted at each of these sites, prior to the current endeavor, is detailed next. Included in the description is the relationship of each site to the Travertine project area, as shown in Figure 2.

CA-RIV-1334

First recorded by J. Craib in 1972 (designated CV-205), this site was comprised of a light, but almost continuous scatter of ceramic sherds, mostly red-brown in color (presumably Tizon Brown Ware). The near continuous scatter ran for 1.2 km (0.75 mile) along the former shoreline of Lake Cahuilla at the 40-foot contour. Craib collected much of the surface scatter, which had been recorded as 50 – 75 m (164-246 feet) wide. According to the site form, most of the "rock features" had been previously pilfered.

CA-RIV-1334 was relocated during field survey conducted intermittently between March 28 and June 26, 1994, by The Keith Companies for the proposed Travertine project. Chace reports (1994:17) finding only a light scatter of ceramic sherds on the surface of the lengthy linear site. No buried archaeological deposits were observed within the numerous arroyos and small channels that had been cut into the alluvial deposits beneath the surface in this area. During that survey effort, all evidence of CA-RIV-1334 was restricted to [redacted], with no cultural material identified as part of the site in [redacted]. Thus the 1994 survey determined that CA-RIV-1334 [redacted]. In addition, Chace (1994:22) recommended that CA-RIV-1334 was not eligible for listing on the NRHP.

CA-RIV-1341

Initially recorded by P. Wilke in 1972 (designated CV-113), CA-RIV-1341 is a 50 x 50 m burned rock feature containing ceramic sherds, lying within an almost continuous scatter of ceramic sherds along the former shoreline of Lake Cahuilla marked by the 40-foot elevation contour. The site map indicates it was located within [redacted]. CA-RIV-1341 was relocated during field survey conducted intermittently between March 28 and June 26, 1994 (Chace 1994:17). The site was incorporated as part of CA-RIV-1351, discussed below under CA-RIV-1341/1351. Chace (1994:22) recommended that combined site CA-RIV-1341/1351 was not eligible for listing on the NRHP. In 2004, site CA-RIV-1341/1351 was incorporated into multi-component site CA-RIV-7394, detailed below.

CA-RIV-1342

A large and diffuse surface scatter of ceramic sherds, CA-RIV-1342 was originally recorded by P. Wilke in 1972 (designated CV-112), and updated by B. Arkush in 1990. According to Arkush, both Tizon Brown and Lower Colorado Buff wares are represented in the scatter. [redacted] The record update also discloses evidence of recent disturbance of the site, with at least four potholes noted. The site map indicates the ceramic scatter is located [redacted] Recommendations as to the eligibility status of CA-RIV-1342 for listing on the NRHP have apparently not been made.

CA-RIV-1351

CA-RIV-1351 was initially recorded by R. Black in 1972 (designated CV-111), and is described as a 70 x 40 m scatter of ceramic sherds, lying close to 50 feet in elevation [redacted]. Sherds from three areas within the surface scatter were collected. This site record's map shows the original site's location is within [redacted]

CA-RIV-1351 was relocated during a 1990 survey and the site record updated by B. Arkush. Noted was a surface scatter of ceramic sherds with several pieces of silicate debitage on the [redacted] The sherd scatter included both Tizon Brown and Lower Colorado Buff wares. At that time, it appeared that much of the surface material had probably been collected as a result of recent camping and off-road activity, impacting the integrity of the site.

CA-RIV-1351 was relocated again during field survey in 1994, with the site record updated by B. McManis (Chace 1994:18). As a result of that survey, CA-RIV-1351 was enlarged to incorporate CA-RIV-1341, plus previously unrecorded contiguous zones (Chace 1994:18), discussed next under CA-RIV-1341/1351. Chace (1994:22) recommended that combined site CA-RIV-1341/1351 was not eligible for listing on the NRHP.

CA-RIV-1341/1351

As a result of a field survey conducted in 1994, CA-RIV-1351 was enlarged to incorporate CA-RIV-1341, as well as previously unrecorded contiguous zones (see Chace 1994:18). A light scatter of ceramic sherds, with one piece of quartz debitage, was identified within a 240 x 300 m elliptical site area, covering 52,600 square meters. Approximately 300 sherds were identified as Tizon Brown Ware.

The combined site is located on [redacted]. CA-RIV-1341 was recorded on the [redacted], with CA-RIV-1351 originally recorded to the [redacted]. The cultural material between these two sites had not been previously recorded. During the survey in 1994, no midden or buried archaeological deposits were observed within the numerous arroyos and small channels that had been cut into the alluvial and beach deposits at site CA-RIV-1341/1351.

The updated site map indicates the site is located within the [redacted] continuing into the [redacted] In his report, Chace (1994:22) recommended that combined site CA-RIV-1341/1351 was not eligible for listing on the NRHP.

CA-RIV-7394 (Formerly CA-RIV-1334 and CA-RIV-1341/1351)

This multi-component site incorporates CA-RIV-1334 and CA-RIV-1341/1351, and artifacts found between them and to the south, east, and west. The enlarged site was recorded by D. Ballester in December 2003, and again by J. Eddy in March 2004, as a result of a pedestrian survey performed by CRM Tech in August/September 2003 for proposed CVWD reservoirs and pipeline rights-of-way (Hogan et al. 2004). CRM Tech archaeologists surveyed along the [redacted]. The linear survey corridor also extended about [redacted] Throughout the survey area, ground visibility was good to excellent (70–100%) (Hogan et al. 2004:9). Since several artifact concentrations and isolates were identified

between the two previously recorded sites (CA-RIV-1334 and CA-RIV-1341/1351), as well as to the southeast and east, all the cultural material was then combined into one large site complex, designated CA-RIV-7394.

CA-RIV-7394 measures approximately 1,550 × 750 m and is comprised of ten loci, two segments of Native American trails, several isolated ceramic sherds, and two projectile points. Each locus consists primarily of ceramic sherd scatters. Three loci (2, 3, and 7) also contain a cremation feature, including burned human bone, ceramic sherds, with chipped stone in loci 2 and 7. Bedrock milling features are present in loci 2 and 4; groundstone fragments in loci 5, 7, 8, 9, and 10; five possible prehistoric hearths in loci 7 (n=2) and 8 (n=3); fire-affected rock in loci 9 and 10; and a U-shaped rock alignment in locus 9. Two Desert Side-Notched points were identified; one in locus 1 made from wonderstone, and one made from chalcedony within the cremation feature in locus 2. Segments of Native American trails were identified in loci 3 and 4 [redacted] The trail in locus 4 extends some [redacted].

Based on several factors, it is likely that CA-RIV-7394 could yield important information regarding the prehistory of this area (Hogan et al. 2004:35). Its location indicates that: (1) the site likely represents the remnants of a prehistoric habitation area along the shoreline of Holocene Lake Cahuilla; and (2) the probability of discovering buried cultural deposits in this sandy terrain near the former shoreline is high. Further, the presence of human cremation features and the extensive artifact assemblage, in addition to the Native American trails, indicates CA-RIV-7394 likely retains a great deal of information regarding the prehistory of this area. The cultural material might also have some association with the historic Cahuilla village of Toro (*Mauūlmiī*)[redacted]

CA-RIV-7394 tracks the 40-foot contour shoreline of Holocene Lake Cahuilla, with the average elevation of the site ranging between 5–45 feet above sea level. The site is located mostly in [redacted] The site map indicates the westernmost edge of the site falls within [redacted] thus within the Travertine project boundary. In addition, approximately the southern one-fourth of CA-RIV-7394 falls within the Travertine project's [redacted] In their report, CRM Tech (2004:35) stated that combined site CA-RIV-7394 "appears to meet the criteria for listing in the National Register and the California Register."

NATIVE AMERICAN CONTACTS

To solicit additional knowledge about cultural resources, SWCA contacted the Native American Heritage Commission (NAHC) requesting a Sacred Lands file search and local contact list on 16 December 2003. The NAHC responded by a faxed letter on 23 December 2003, indicating that a search of the Sacred Lands file, "failed to indicate the presence of Native American cultural resources in the immediate project area." The letter included a list of four Native American individuals and organizations that may have knowledge of resources in the area.

SWCA, in consultation with the BLM Palm Springs-South Coast Field Office, subsequently contacted the four listed organizations by letter on 21 January 2004. We requested any information regarding knowledge of cultural resources in the project area. The following individuals were contacted:

- Richard Milanovich, Chairperson, Agua Caliente Band of Cahuilla Indians
- Maryann Martin, Chairperson, Augustine Band of Mission Indians
- John James, Chairperson, Cabazon Band of Mission Indians
- Ray Torres, Chairperson, Torres Martinez Desert Cahuilla Indians

Two responses were received to the letter addressed to the contact list. Joseph M. Nixon, Ph.D., Cultural Resources Coordinator, Tribal Historic Preservation Office, Agua Caliente Band of Cahuilla Indians, responded by letter dated 28 January 2004. He explained that the project area is not within Reservation lands, nor is it "within the Tribal Traditional Use Area, [but] it is in close proximity to it." Therefore, the Agua Caliente Band does request copies of any cultural resources documentation produced by this project.

Mr. Gary Resvaloso, Cultural Resource Coordinator for the Torres Martinez Desert Cahuilla Indians, responded by letter dated February 4, 2004. He stated that the project area lies within the territory defined as the Tribe's Traditional Use Area, and that this raised the following concerns:

- They are aware of several cultural resources in close proximity and therefore the probability of finding cultural resources on the subject property is fairly high; and
- That often significant cultural resources are not identifiable on the surface, but are found during ground disturbing activity; therefore
- They request that a Native American Monitor be present during the cultural resources survey and site evaluation, and during any ground disturbing activity on or off the project site.

A copy of all correspondence is contained in *Confidential Appendix C*.

RESEARCH ISSUES AND THEMES

This research design outlines research issues and cultural themes considered important in understanding the prehistory and ethnohistory of the project area. These themes are pertinent to the assessment of a site's significance and potential eligibility for listing on the NRHP and/or CRHR. An important site, one that is NRHP and/or CRHR eligible, contains scientific, educational, traditional cultural, or other data valuable to our understanding of the prehistory or ethnohistory of a region, and provides information to address these broad analytical themes.

The review for this project of previous research has primarily identified the following three domains of inquiry concerning the Prehistoric and Ethnohistoric Periods: cultural chronology, subsistence systems, and settlement patterns. These domains do not represent the full range of research interests or opportunities within the Coachella Valley, Salton Trough, or greater Colorado Desert region, but were specifically chosen to highlight some of the current research issues of the project vicinity, particularly those with clear linkages to data potentially available from the project area sites, including CA-RIV-7394 and nearby MMRS sites.

CHRONOLOGY

Chronology is of basic importance in any archaeological research endeavor as it provides the foundation for addressing all other research issues. The majority of sites within the Coachella Valley date to the Late Prehistoric or Contact Periods, although recent research has added to our knowledge of the Late Archaic Period in this area. Research indicates that prehistoric occupation of the project vicinity coincided with periodic infillings of Holocene Lake Cahuilla, with many sites corresponding to the last lacustrine interval. Ethnohistoric occupation of the area, including settlement by the Cahuilla of the village of Toro (*Mauūlmiī*) near the project area, coincides with the recession of the lake, beginning during the Patayan III Period.

The issue of cultural chronology in the Coachella Valley can be addressed by locating materials such as artifacts that are amenable to dating and identifying assemblages in the archaeological record that reflect temporal differences. The appearance of pottery marks the end of the Archaic Period and the beginning of the Late Prehistoric or Patayan Period. In addition to ceramics, projectile points are smaller and triangular in shape (Cottonwood Triangular, Desert-Side Notched) and cremation is introduced into the archaeological record during the Patayan Period. Pottery types during the Patayan Period include Tizon Brown Ware manufactured from upland clay sources and Colorado Buff Ware made from lowland sedimentary clays. The toolkit also included worked bone tools and lithics manufactured from non-local raw material (e.g., obsidian, wonderstone).

Research Questions

- When was the site utilized? Does the site consist of single or multiple components? Has the site been utilized during different periods?
- Are temporally diagnostic artifacts present? Can a relative chronology be established by linking the presence of diagnostic artifacts to dated sites?
- Is there strong evidence of use during the Archaic, Late Prehistoric, or Ethnohistoric Periods? Can such evidence be related to other nearby sites?
- Does the site coincide with the lacustrine intervals of Lake Cahuilla, or does it post-date the lake?
- Can Ethnohistoric Period occupation be identified, and does it reveal continuity with the Late Prehistoric Period?
- Do the chronological data contribute to our understanding of the nature and timing of population movements in the area?
- Do the chronological data at this site contribute to our understanding of the relationships between different periods or phases within established cultural sequences?

Data requirements. The precision and accuracy of dates are critical since they form the baseline for the other research topics: the better the chronological control and understanding of the site, the more rigorous research that can be applied to that site. Absolute dating techniques are preferable to relative dating of diagnostic artifacts (e.g., projectile points, ceramic artifacts, shell beads), since absolute dating (e.g., radiocarbon) is an independent assessment of the age of sample analyzed. Alternate means of dating would include obsidian hydration measurements.

Sites containing organic materials suitable for radiocarbon dating (e.g., charcoal, wood, burned floral remains, faunal bone, marine shell, organic-rich soil), desert varnish suitable for radiocarbon dating, temporally diagnostic artifacts, and obsidian artifacts would make important contributions to this research issue.

SUBSISTENCE SYSTEMS

Prehistoric and ethnohistoric populations would have exploited a wide variety of floral and faunal resources associated with the various ecological communities within the Coachella Valley, the Lake Cahuilla shoreline, and the surrounding uplands, including the Santa Rosa and San Jacinto Mountains west of the current project area. Resource procurement would be reflected both in the remains of plants, fish, and animals, and also in the types of tools used for hunting, gathering, or processing them.

During the Late Prehistoric Period, archaeological assemblages indicate that both lowland and upland animals and plants were consumed, as well as shellfish, fish, aquatic birds, and freshwater marsh plants

associated with Lake Cahuilla (Wilke 1978; Schaefer et al. 1993). Some of these resources were collected seasonally while others were apparently obtained year round. Immediately prior to European contact, there is a shift in resource procurement to an increase in the exploitation of agave during the Patayan III Period (Shackley 1984). Resources were collected or processed using various types of milling equipment (e.g., bedrock grinding slicks, portable mortars, pestles), woven basketry, nets and traps, stone tools, etc. Ceramics were introduced during Patayan I. Artifact assemblages from Patayan II sites provide data on the exploitation of lacustrine and marsh resources associated with the presence of Lake Cahuilla. Patayan III is marked by the recession of Lake Cahuilla, which is evidenced by the hundreds of stone fish traps constructed well below the high stand of the former lake.

During the Ethnohistoric Period, permanent lakebed villages were supported by walk-in wells and mesquite groves on the valley floor, as well as by the practice of small-scale agriculture. Data from ethnographic study of the Desert Cahuilla also show that during seasonal rounds of harvesting and gathering they collected important plant resources, including acorn, piñon nuts, and agave, in the upland ecological communities. In fact, although the Creosote Bush Scrub plant community on Coachella Valley floor contained a number of economically useful plants, including mesquite, research indicates that 75 percent of the Cahuilla vegetal diet was from the Upper Sonoran and Transition environmental zones (Bean 1978:576).

Research Questions

- Do the resources represent the lakeshore, lowland, and/or upland ecological communities near the project area? Are freshwater fish obtained from Lake Cahuilla present or absent at the site?
- Are subsistence strategies focused on a few resources, or are they more broadly based?
- Does the range of resources at the site represent seasonal or year round use?
- Do subsistence strategies change through time? Is there an increasing reliance on specific resources?
- Can changes in the cultural or natural environment, such as the infilling or recession of Lake Cahuilla, account for any shift in subsistence strategies?

Data requirements. Sites containing faunal bones, fish bones, shellfish, milling stones (e.g., bedrock grinding slicks, mortars, pestles), macrobotanicals, pollen, protein and blood residue analysis of stone tools or milling stones, artifact use-wear analysis, or landscape-site associations would make important contributions to this research issue.

SETTLEMENT SYSTEMS

The content of an archaeological site provides information regarding its cultural affiliations, temporal periods of use, its functionality, and other aspects of its occupation history. Generally, the range and variability of artifacts present in a site may permit reconstruction of various aspects of prehistoric culture, including, among other topics, ethnic affiliation, diet, and social structure, as well as the role of the site within the broader regional landscape pattern. This discussion of settlement system as it pertains to a site covers two primary issues. The first, site function, is integral to evaluating the role of the site within the second issue, the broader regional landscape pattern.

A variety of mobility strategies and settlement practices were most likely practiced by prehistoric and ethnohistoric populations in the Colorado Desert region. Within the Coachella Valley, two settlement theories for the Late Prehistoric have been presented. Weide (1976) argues that residence on the fluctuating shoreline of Holocene Lake Cahuilla was temporary and limited to small groups of

opportunistic foragers. In contrast, Wilke (1978) postulates that large populations lived in permanent villages along a stable Lake Cahuilla shoreline. Recent research, including studies in the La Quinta and Toro Canyon region (e.g., Schaefer et al. 1993; Sutton and Wilke 1988) tends to support the model presented by Weide. The research at Toro Canyon includes the excavation at the base of the MMRS of two Patayan II Period rockshelters (CA-RIV-1331 and CA-RIV-1349), located only 600 m west of the 12 m Lake Cahuilla high stand (Schaefer et al. 1993; Pallette and Schaefer 1995).

Research also indicates that there was a shift in the regional pattern of settlement systems in the Salton Trough and Coachella Valley that was related to the cyclical filling and desiccation of Lake Cahuilla during the Late Prehistoric or Patayan I-III Periods. During the Patayan II Period, for example, research indicates that seasonal camps along the 12-m (40-foot) high stand of the lake were likely connected by a series of trails to residential bases located in the uplands (e.g., Schaefer et al. 1993; Pallette and Schaefer 1995). In contrast, after the final desiccation of the lake during the ensuing Patayan III Period, sedentary villages were established on the valley floor, and the trail network connected to special-purpose smaller sites in the Santa Rosa Mountains where seasonal resources (e.g., acorns, piñon nuts, and agave) were collected. The known western extent of the Ethnographic Period village of Toro (*Mauūlmiī*), for example, which extended for over a mile from the edge of the Toro Cemetery to the walk-in wells at Jackson Street, was located on the lakebed approximately a half-mile east of the current project area. The trail network was also utilized during the Patayan II-III and Ethnohistoric Periods to access upland clay sources that were used for the production of Tizon Brown Ware. Pot-drops and trailside shrines also characterize the networks of trail systems during the Patayan Period. Pot-drops and grinding stations also likely characterize the Ethnohistoric Period (Schaefer et al. 1993:36).

Long-distance trade in the area is evidenced as early as the Late Archaic Period. Assemblages from excavations in the Coachella Valley contain obsidian from the Coso volcanic field and shell beads from the Gulf of California. During the Patayan Period, shell beads, as well as artifacts manufactured from non-local wonderstone and obsidian, have been recovered at inland archaeological sites. This period also reflects the influence and migration of Takic-speaking peoples into southern California, including the introduction of pottery during Patayan II. Painted pottery and Colorado Buff Wares were introduced during the Patayan III Period, along with the practice of small-scale agriculture.

Research Questions

Site Function

- What resource extraction and/or processing activities occurred at the site (e.g., what types of lacustrine and/or terrestrial resources were processed on site)? How were such resources obtained and processed?
- Does the site contain evidence of multiple activities? What artifact types and cultural activities are represented at the site (e.g., groundstone, bone tools, flaked stone tools with use wear, unmodified faunal bone, ceramics, or features, such as hearths, storage pits, or burials)?
- Are there any patterns of intrasite variation within the site (e.g., are distinct use areas discernable)?
- Are there any patterns of intrasite variation through time (e.g., did site function change over time)?
- Is there any evidence to suggest seasonal versus year-round habitation and/or use? What environmental factors and/or natural resources would have influenced the timing and duration of site occupation and/or utilization?

- What type of site is represented? Is the site a habitation site (e.g., temporary camp or permanent village)? Is it a task specific site, such as a limited resource procurement site (e.g., fishing, hunting) or processing site (e.g., plant processing)?

Regional Landscape

- Is the site part of a regional settlement system? Does the site contribute to our understanding of the two different settlement pattern models (Wiede vs. Wilke) presented for the Coachella Valley?
- Does the site contribute to our understanding of the relationship between the regional settlement system and the natural infilling or dessication of Lake Cahuilla?
- Does the site reveal evidence of intra-regional interaction, trade, and/or mobility (e.g., are any exotic ecofacts or artifacts present)?

Data requirements. Sites containing hearths, middens, storage pits, remains of structures, projectile points, ceramic artifacts, wonderstone or obsidian artifacts, faunal and fish bone, milling stones, ceremonial objects, shell beads, clay figurines, worked bone tools, rock art, burials or cremations, or trail networks would make important contributions to this research issue.

SURVEY METHODS AND RESULTS

SURVEY METHODS

The Class III inventory designed to locate cultural resources within the Travertine property included intensive pedestrian survey. Foot survey of the study area was performed by SWCA on three separate occasions, February 2004, March 2005, and November 2005. The methods employed for each survey period are detailed below, with the total survey coverage by SWCA shown on Figure 1. The five proposed access routes to the Travertine property are designated Access 1–5 on the figure. Only Access Roads 2, 3, and 4 are now planned for construction.

In total, approximately 902 acres were covered by the intensive pedestrian survey, including 704 acres owned by Travertine, five proposed access roads, only three of which are now planned for construction, and 125 acres administered by the BLM that includes portions of CA-RIV-7394 (Table 4). Also listed in the survey coverage table is acreage for a small future acquisition, and a parcel owned by Friends of the Desert Mountain, located in the northwest quadrant of Section 33 (marked not a part on the Figure 1), and within the cutout in the northeast corner of Section 5, respectively. Table 4 lists the survey coverage for the proposed access roads, including that for public lands administered by the BLM (20.1 acres) and BOR (29.6 acres). Note that only Access Roads 2, 3, and 4 are now planned for construction.

Approximately 230 acres owned by Travertine were not surveyed during the current endeavor. A large area (219 acres) within the southern half of Section 33 was excluded from the survey because it is planted with dense vineyards. In addition, a 10.7-acre block in the southeast corner of Section 5, which is shown on Figure 1 as part of Travertine property, was not surveyed because it was not part of Travertine land at the time of the fieldwork. This block falls within the planned conservation area.

Table 4. Survey Coverage

Land owner	Description	Acreage Surveyed (approximate)
Travertine	Block in northwest quadrant of Section 33	703.66
BLM	Access Road 1; Section 3/10 boundary *	7.17
BLM	Access Road 2; Section 3/34 boundary	2.31
BLM	Access Road 4; northeast quadrant of Section 32	10.62
BLM	Portions of site CA-RIV-7394	125.0
BOR	Access Road 1; Section 3/10 boundary *	6.47
BOR	Access Road 2; Section 3/34 boundary	5.27
BOR	Access Road 3; Section 33/34 boundary	7.12
BOR	Access Road 4; northeast quadrant of Section 32	0.2
BOR	Access Road 5; northeast quadrant of Section 28 *	10.57
Coachella Valley Water District	Access Road 3; Section 33/34 boundary	5.54
Future Travertine purchase	Northwest quadrant of Section 33 ("Not a part")	12.36
Friends of the Desert Mountain	Cutout in northeast quadrant of Section 5	12.4
Total Acreage Surveyed		**902.47**

* Access Roads 1 and 5 are now *not* planned for construction.

February 2004. SWCA Field Supervisors Peter Paige and Michael Tuma performed the initial pedestrian survey of the Travertine project area from 2 to 6 February 2004 (Maxon 2004). This survey was performed per the request of the BLM and BOR to: (1) confirm the presence of and reevaluate two previously recorded sites (CA-RIV-1334, CA-RIV-1341/1351) along a former shoreline of Lake Cahuilla; (2) resurvey the perimeter of the MMRS near the southern boundary of the Travertine property; (3) conduct a new survey of the locations of three of five proposed access roads; and (4) resurvey the former Lake Cahuilla shoreline between two of the proposed access roads.

During the survey, the locations of any new sites and isolates, as well as concentrations of artifacts within known sites, were recorded using a hand-held global positioning system (GPS) unit (Magellan Meridian, WAAS enabled). This instrument collects an average of points at a location. To ensure a more accurate average, points were collected for at least one minute at each new find location. Surface visibility at the time of this survey was excellent (>90%).

CA-RIV-1334 and CA-RIV-1341/1351 were relocated, using the site records and a previous survey report by Chace (1994). The two archaeologists walked the length of these lakeshore sites, recording all visible surface artifacts, including artifact types and concentrations.

The perimeter of the MMRS was resurveyed in an effort to relocate previously recorded sites that were not relocated by Chace during his 1994 survey of the area. DPR site records and descriptions in the Chace (1994) report were used to help relocate all known sites on the Travertine property in the vicinity of the MMRS.

Three (Access Roads 1, 2, and 4) of five proposed access road locations were surveyed using 15-meter transects. Approximately 30 meters to the north and south of the centerline of the proposed access roads were surveyed. The 17-acre block in the northeast corner of Section 33 east of Access Road 4 was surveyed using 15-meter spaced transects.

A resurvey of the former Lake Cahuilla lakeshore was accomplished from north to south between two of the proposed access roads; designated Access Roads 1 and 2 located along the Section 3/10 and 3/34 boundaries, respectively. This resurvey was performed at the specific request of the BLM in order to revisit and confirm the presence of previously recorded sites along the 40-foot contour line. Survey methods were the same as described above.

March 2005. Most of the Travertine Development property was resurveyed from 28 to 31 March 2005. The study was carried out by SWCA archaeologists Michael Tuma (Field Supervisor), Luis Burgos, Michael Cruz, Maria Garrity and Stephen O'Neil. The survey area included: (1) the northern portion of Section 33, including the southern tip of Coral Mountain (excluding existing vineyards in the southern portion of Section 33); (2) Section 4 north of the RPA Line; (3) an approximately 40-acre area south of the RPA Line, at the eastern edge of Section 5, in a wash west of the MMRS; (4) Sections 3 and 5 north of the RPA Line; (5) the southeastern portion of the proposed project area within Section 3, which was not surveyed in February 2004[redacted]

The CA-RIV-7394 site complex, originally recorded as sites CA-RIV-1334 and CA-RIV-1341/1351, was expanded and designated in March 2004, after SWCA's February 2004 survey. This designation was included in a report on the Coral Mountain Reservoir project (Hogan et al. 2004). The results from the surveys conducted by SWCA within the site boundaries are discussed below in relation to the recently designated site complex, CA-RIV-7394.

Except for the wash west of the MMRS, the acreage was surveyed using 15-meter spaced transects, running along east-west lines (see Photograph 2). The pedestrian survey of the wash west of the MMRS was accomplished by walking along the natural contours of the slopes with personnel spaced 15 meters apart, as terrain permitted. The remaining project acreage south of the RPA Line was not surveyed during March 2005 since that area was not then part of the planned development.

During the pedestrian survey, all artifacts observed on the surface were pin-flagged, and the entire area intensively searched for artifacts and features. The horizontal extent of each concentration or scatter was recorded with a hand-held GPS (Magellan Meridian). Several points around the perimeter of large scatters were recorded; one point was recorded for small scatters or isolated artifacts. To ensure the precision of the GPS data, the locations of five mapped landmarks were recorded, including Benchmark 50 [redacted] and four points (Control Points #1 – 4) [redacted] (see Figure 4).

The winter of 2004/2005 was an extremely wet season, with near-record levels of rainfall in the southern California region. This resulted in the growth of an abundance of annual plant species throughout the Coachella Valley, including the Travertine project area. Because of the extensive growth of non-native grasses and native herbaceous plants, ground visibility was markedly reduced in 2005 compared to the 2004 season. Surface visibility overall was estimated at 60 percent, whereas some patches of more dense vegetation offered as little as 5 percent surface visibility.

Photograph 2. Survey over desert pavement at [redacted] CA-RIV-7394. View to the south.

November 2005. SWCA archaeologists Stephen O'Neil and Kevin Hunt surveyed four additional areas on November 21 and 22, 2005. These areas included: (1) Access Road 3; (2) Access Road 5; (3) land in Sections 4 and 5 south of the RPA Line east and west of the MMRS; and (4) acreage newly acquired by the Travertine Corporation in Section 5 immediately north and south of the RPA Line.

The acreage was surveyed using 15-meter spaced transects, with the exception of the wash west of the MMRS. The pedestrian survey of the wash west of the MMRS was accomplished by walking along the natural contours of the slopes with personnel spaced 15 meters apart, as terrain permitted. The terrain in this area consists of a moderate slope to the west and southwest, with flat areas of desert pavement cut by washes emerging from the Santa Rosa Mountains. The washes then become large ravines up to ten feet deep that contain numerous large boulders. During the November survey, sites and isolates were recorded using a hand-held GPS (Garmen Etrex). Several points were recorded for sites; one point was recorded for isolated artifacts.

Proposed Access Road 3 along the Section 33/34 boundary line is a flat open area along the shoreline of Holocene Lake Cahuilla. It is relatively undisturbed despite its proximity to vineyards, except where the route crosses the levee since soil from the area had been used to build the levee (see Figure 1). Proposed Access Road 5 in the northeast corner of Section 28 crosses the levee southward into a recently developed residential area. Prior trenching for underground utilities and a planned roadway heavily disturb this route. To the north, between the levee and Avenue 58, are numerous modern trash deposits.

SURVEY RESULTS

Previously Recorded Sites

With the incorporation of the three sites (CA-RIV-1331, CA-RIV-1341, and CA-RIV-1351) into CA-RIV-7394 and the eliminateion of CA-RIV-1348 as a site, a total of 14 prehistoric archaeological sites had been previously recorded within the boundaries of the current project area. Seven of these occur [redacted] one is the multi-component site CA-RIV-7394; four are ceramic sherd scatters [redacted] one is a rock alignment in Section 5; one is a sherd scatter [redacted]

During the three survey periods conducted by SWCA for this project, all seven previously recorded sites around the perimeter of the MMRS were relocated and their information updated (Table 5). An additional 16 loci and 14 isolates were identified as part of multi-component site CA-RIV-7394. Including the 10 loci previously identified by CRM Tech (Hogan et al. 2004), the total recorded loci for site CA-RIV-7394 numbered 26 as a result of the survey efforts. A 27th locus was identified during the testing phase discussed below. In addition, a thin, near continuous scatter of mainly ceramic fragments was recorded paralleling the [redacted] boundary of site CA-RIV-7394.

Along the right-of-way of Access Road [redacted] isolated Tizon Brown Ware ceramic sherds were observed in 24 locations during the initial survey in February 2004. Each isolate comprised 1–4 sherds. Fourteen of these isolated occurrences (#1, 3–8, and 10–16) were later included within the current boundaries of CA-RIV-7394, as defined by this study after the limited site testing (see below). The remaining six isolate locations are outside the project area [redacted]

Of the 14 previously recorded sites within the boundaries of the project area, five were not relocated. Three sites (CA-RIV-3875, CA-RIV-3876, and CA-RIV-5320), comprised of small sherd scatters or pot drops, were not relocated due to the density of the vegetation cover in March 2005. An effort to relocate two of these sites (CA-RIV-3875 and CA-RIV-3876) during survey by The Keith Companies in 1994 was also unsuccessful (Chace 1994:19). It seems likely that both CA-RIV-3875 and CA-RIV-3876, small ceramic scatters recorded in secondary context near the edge of the alluvial fan in Section 4, may have been washed further down slope subsequent to their initial recordation in 1990. The rock alignment or probable hearth recorded in 1994 as CA-RIV-5321 was not relocated even though the nearby area of broken terrain and steep sided washes was surveyed by SWCA on two occasions (March 2005 and November 2005). Last, no evidence was found of site CA-RIV-1342, a diffuse scatter of ceramic sherds previously recorded near the mouth of Toro Canyon, although an attempt was also made on two separate occasions (February 2004 and March 2005).

Updated site record forms, including GPS data, for eight of the nine relocated sites listed in Table 5, including CA-RIV-7394, are appended to this report as *Confidential Appendix E*. No update was completed for CA-RIV-5319 since there is no new information. *Confidential Appendix E* does include an update for CA-RIV-1342; the update records the efforts made to relocate this site and what may have occurred since it was last revisited in 1990 (see below).

Table 5. Archaeological Sites Relocated within Project Area

Site Number	Month and Year Relocated	Description	Current Land Owner
CA-RIV-1331	July 2005; February 2006	MMRS site. All previously described features observed, including Native American trails leading toward CA-RIV-1349 and CA-RIV-7394. The rock wall (designated Feature A in Figure 9 of Schaefer et al. 1993) had fallen or been knocked down.	BLM
CA-RIV-1342	Not relocated	Possibly dispersed, washed further down slope, buried by flash flood waters emerging from Toro Canyon, or mistaken as adjacent to the main Toro Canyon drainage.	BOR
CA-RIV-1349	February 2006	MMRS site. All previously described features observed. Native American trail from CA-RIV-7394 to CA-RIV-1331 has a fork directed to this site.	BLM
CA-RIV-3872	February 2004; March 2005	MMRS site. Only one of the previously recorded milling slicks observed; previously recorded mano not observed.	Travertine
CA-RIV-3873	March 2005; February 2006	MMRS site. Previously described milling feature observed.	Travertine
CA-RIV-3874	February 2004; March 2005; February 2006	MMRS site. Previously described milling feature observed; two Tizon Brown Ware sherds observed 15 m west of the site. Spray painted graffiti dated “2003” present on overhanging boulder.	Travertine
CA-RIV-3875	Not relocated	Dense vegetation cover. Not relocated during earlier 1994 survey. Possibly washed further down slope.	Travertine
CA-RIV-3876	Not relocated	Dense vegetation cover. Not relocated during earlier 1994 survey. Possibly washed further down slope.	Travertine
CA-RIV-5319	May 2006	Previously described ceramic fragments observed.	Travertine
CA-RIV-5320	Not relocated	Dense vegetation cover.	Travertine
CA-RIV-5321	Not relocated	Area has broken terrain and steep sided washes.	Travertine
CA-RIV-5322	February 2004; March 2005	MMRS site. Previously described milling feature observed.	BLM
CA-RIV-5323	February 2004; February 2006	MMRS site. Previously described milling feature observed.	BLM
CA-RIV-7394	February 2004; March 2005	Identified a thin, near continuous scatter along the western boundary, 16 loci, and 14 isolates. With 10 loci previously identified by CRM Tech in 2003/2004, brings total loci to 26. A 27th locus was identified during the testing phase discussed below, and then three loci combined. Site boundaries have been redrawn.	BLM and Travertine

Martinez Mountain Rock Slide Sites

The seven previously recorded sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, and CA-RIV-5323) on the perimeter of the MMRS were relocated. Two of these sites include rock shelters (CA-RIV-1331 and CA-RIV-1349), and all include rock features known as milling slicks. Found on the large granodiorite boulders distributed around the base of the MMRS, milling slicks are small, often multiple, polished areas of stone that likely represent processing stations for grinding hard seeds into flour with the aid of a handstone.

The previously described milling features at each of the seven sites were observed, although the mano associated with CA-RIV-3872 was not detected, and the sherd scatter near CA-RIV-3874 was not as

extensive as previously recorded. At CA-RIV-1331, one of the features, a rock wall, was no longer erect, and graffiti ("9-3-2003") had been spray painted in blue on the overhanging boulder at CA-RIV-3874. The Native American trail system included as part of the CA-RIV-1331 site record was traversed and observed to lead toward sites CA-RIV-1349 and CA-RIV-7394.

UTM coordinates for each of the MMRS sites were recorded by SWCA archaeologists using a handheld GPS (Magellan Meridian), and/or by surveyors with Stantec Engineering (using a Trimble 4700). As discussed below, this effort has resolved the ownership status of the prehistoric sites at the base of the MMRS, [redacted]

CA-RIV-1342

No evidence of CA-RIV-1342 was found on two occasions during the current endeavor at the location where this site had been initially recorded in 1972, although it had been relocated in 1990. Considering that CA-RIV-1342 was not relocated in February 2004 when visibility was excellent (>90%), nor in March 2005 when visibility was poor (<60%), the large, diffuse surface scatter of ceramic sherds may have been dispersed, washed further down slope, or buried during the intervening years by possible flash flood waters emerging from Toro Canyon. SWCA archaeologists did identify a scatter of approximately 20 Tizon Brown Ware sherds [redacted] of the mapped location of CA-RIV-1342 (see discussion of CA-RIV-7394, *Locus 23* below). It is thus possible that this scatter represents CA-RIV-1342, and that earlier researchers may have misplotted the site's location, mistaking the arroyo for the main Toro Canyon drainage.

CA-RIV-5319

The SWCA pedestrian survey in March 2005 did not relocate previously recorded site CA-RIV-5319 in the [redacted] Higher than average winter rains had resulted in dense ground cover in the area of this site. At the time of its recordation, there was "no midden or subsurface deposits anywhere evident, and there were numerous eroded rivulet channels and arroyos cutting into the fan providing views of the culturally sterile subsurface stratum" (Chace 1994:20). CRM Tech relocated CA-RIV-5319 in the fall of 2003 and suggested that buried deposits might be present within the sand dunes (Hogan et al. 2004:24).

A second effort to relocate the site by SWCA archaeologist, Stephen O'Neil, who was accompanied by BLM Cultural Resources Specialist (CRS) Wanda Raschkow, was successful. Comparison of the extent of the ceramic sherd scatter, identified on May 31, 2006, indicated that the main component of site CA-RIV-5319 is [redacted] of the Travertine property boundary. In addition, there was no evidence of a subsurface deposit in association with the Lake Cahuilla shoreline site. As noted in Table 3, Chace (1994:22) had previously recommended that the site was not eligible for listing on the NRHP.

CA-RIV-5320

The SWCA pedestrian survey in March 2005 did not relocate previously recorded site CA-RIV-5320 in the [redacted] Higher than average winter rains had resulted in dense ground cover, as well as erosion gullies, in the area of this site. As noted in Table 3, this site has been recommended not eligible for listing on the NRHP (Chace 1994:22).

CA-RIV-7394

SWCA surveyed portions of the acreage incorporated into this newly designated site complex on two occasions. The results of the two surveys varied. A thin, nearly continuous scatter of surface material (mostly ceramic sherds) was identified along the [redacted] boundary of CA-RIV-7394 during the initial survey in early 2004 (Figure 3). The scatter tracked [redacted] of the Travertine property boundary. This near-continuous scatter of artifacts was less apparent when SWCA returned to resurvey CA-RIV-7394 a year later as part of the effort to determine the extent of the site. Also, a greater number of artifacts and a greater diversity of artifact types were observed the previous year [redacted] This surface scatter petered out near a large ravine, in the vicinity of the previously recorded [redacted] CA-RIV-7394.

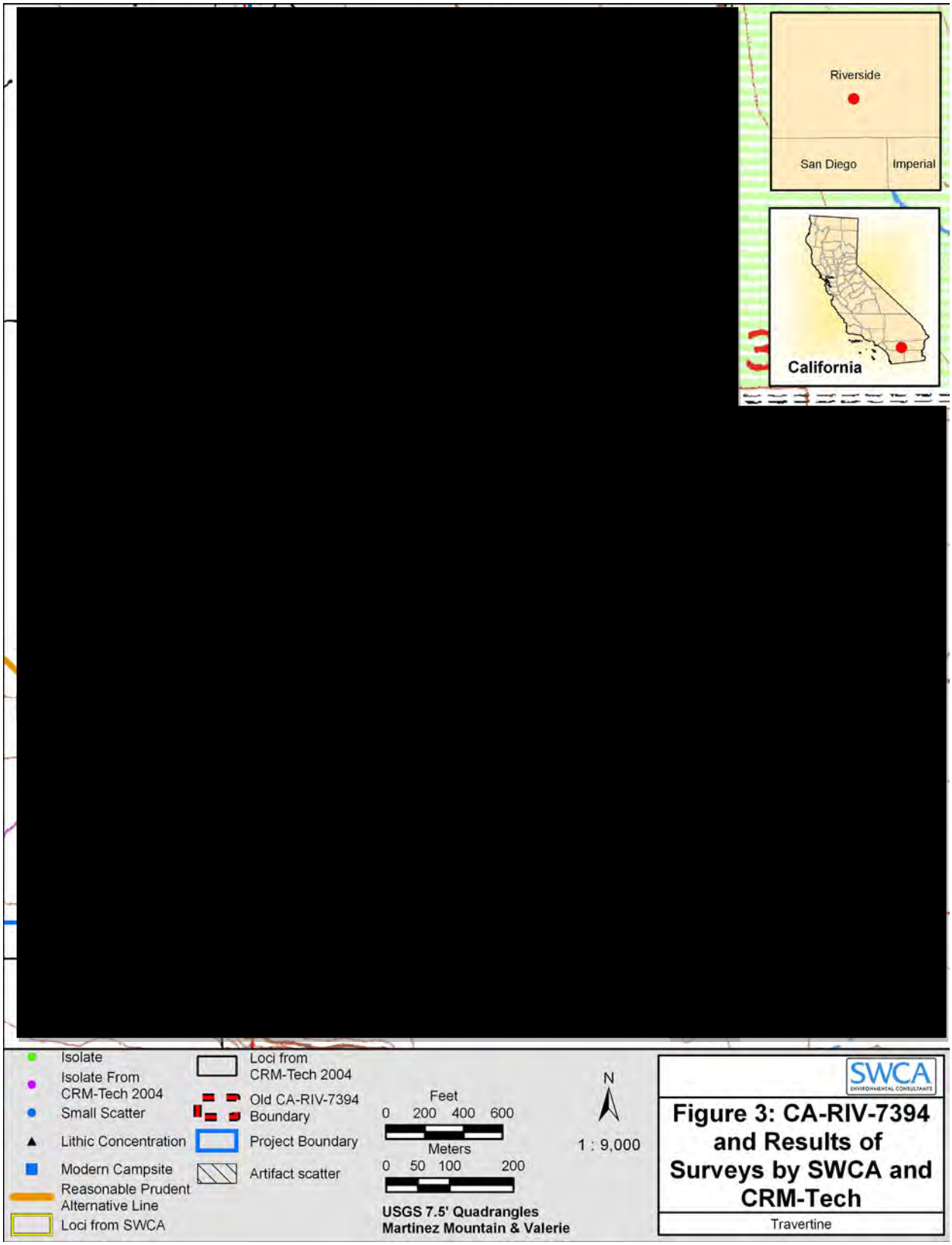
During the 2004 survey, hundreds to thousands of Tizon Brown Ware ceramic sherds were observed in the area of previously designated site CA-RIV-1334. In contrast, Chace (1994:17) had reported finding only a light scatter of sherds on the surface in this area. SWCA archaeologists also identified a metate, a possible rock feature, fire-cracked rock concentrations, flakes of igneous stone, and several fragments of Colorado Buff Ware ceramics. Figure 3 shows data points collected within this area that include center points of large and small ceramic artifact concentrations, pot drops, and rock concentrations. Individual artifacts were also plotted, including large fragments of ceramic bowls or vessels, Colorado Buff Ware sherds, lithic artifacts, and the metate.

More than 100 Tizon Brown Ware ceramic sherds, as well as a possible prehistoric rock feature were identified during the 2004 survey within the [redacted] portion of CA-RIV-7394 [redacted] outside the proposed project area boundary, in the vicinity of previously designated site CA-RIV-1341/1351. As shown on Figure 3, two concentrations of these materials were observed along the edge of the former lakeshore. An abundance of modern trash and modern rock rings/hearths was also observed in this area.

A total of 16 dense scatters and 14 isolated artifacts were identified in association with CA-RIV-7394 during the second survey effort in March 2005. The majority of the dense scatters and isolates were recorded along the western and southern boundaries of the site. The artifacts are primarily ceramic sherds, although four scatters also contained lithics or grinding slicks. Ten of the scatters occur within the previously recorded boundaries of CA-RIV-7394. [redacted]

Considering the extent of the site complex designated as CA-RIV-7394 and the location of the scatters and isolates on the former Lake Cahuilla shoreline, SWCA suggested that the boundaries of CA-RIV-7394 be extended to include the area represented by the six scatters and, by extension, the two isolates that were identified outside the previously recorded boundaries of the site, as well as the thin artifact scatter paralleling the shoreline. Thus, in the following description and on Figure 3, the 16 scatters are referred to as loci, numbered 11-26. Comparison of these finds with the 10 loci previously recorded within CA-RIV-7394 by CRM Tech is shown on the figure.

Clearly, the amount of vegetation on the site's surface in 2005, with overall visibility estimated at 60 percent, had an impact on the survey efforts. It is possible that erosion of soils during heavy rains also had an impact on visibility. Portions of CA-RIV-7394, particularly those located along the arroyos, had been recently scoured by water flows. It was also apparent that sandy sediments had recently been deposited across significant portions of the site; these erosion events likely washed away or buried a portion of the artifacts visible the previous year.


Riverside
San Diego
Imperial
California
Isolate
Isolate From CRM-Tech 2004
Small Scatter
Lithic Concentration
Modern Campsite
Reasonable Prudent Alternative Line
Loci from SWCA
Loci from CRM-Tech 2004
Old CA-RIV-7394 Boundary
Project Boundary
Artifact scatter
Feet
0 200 400 600
Meters
0 50 100 200
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
N
1 : 9,000
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 3: CA-RIV-7394 and Results of Surveys by SWCA and CRM-Tech
Travertine

SWCA was not tasked with relocating the features or loci within site CA-RIV-7394 previously recorded by CRM Tech. Fieldwork concentrated on defining the boundaries of the site, specifically in relation to the proposed Travertine development.

During the site visit on May 31, 2006, a burned bone fragment was identified in association with a cleared circle within Locus 18. The Riverside County Coroner was immediately notified. Although the deputy coroner determined that the fragment lacks diagnostic features, it is being treated as human and the NAHC was duly notified. Representatives of the Torres-Martinez Reservation are being consulted regarding disposition of the remains.

- *Locus 11.* A small scatter comprised of approximately 15 Tizon Brown Ware pottery sherds over an area measuring approximately 20 m (north-south) by 30 m (east-west). There were no visible concentrations of artifacts. The scatter was located [redacted] CA-RIV-7394, as defined by CRM Tech. Locus 11 appears to be within the Travertine project boundary, and should be included within the [redacted] Locus 11 is clearly related to the continuous artifact scatter, initially recorded as CA-RIV-1334. As shown on Figure 3[redacted]
- *Locus 12.* This small scatter is comprised of approximately 10 Tizon Brown Ware sherds over an area measuring approximately 5 m (north-south) by 10 m (east-west). The scatter was located near the [redacted] The GPS coordinates map the scatter alongside the previously recorded [redacted] The scatter should be included within the boundary of CA-RIV-7394.
- *Locus 13.* A large scatter comprised of at least 100 Tizon Brown Ware sherds and approximately five pieces of metavolcanic lithic debitage over an area measuring approximately 45 m (north-south) by 65 m (east-west). At least three rim sherds were observed on the surface. The scatter was situated [redacted] and includes some of the material identified during the 2004 survey. No concentrations of artifacts were observed.
- *Locus 14.* The artifacts in this scatter are separated by a recently eroded arroyo; the two scatters a and b) were likely one large scatter (loci) in the past. The scatters are situated on the former lakeshore [redacted]. Locus 14a is a large scatter of approximately 30 Tizon Brown Ware sherds and one metavolcanic flake over an area measuring approximately 50 m (north-south) by 60 m (east-west). One rim sherd was observed in this portion of the scatter. Across the arroyo, southeast of locus 14a, locus 14b is a small scatter of 8-10 Tizon Brown Ware sherds over an area measuring approximately 12 m (north-south) by 30 m (east-west). This scatter includes some of the material identified during the 2004 survey. No concentrations of artifacts were observed. The scatter is located [redacted]
- *Locus 15.* This large scatter is comprised of approximately 40 Tizon Brown Ware sherds over an area measuring approximately 30 m (north-south) by 75 m (east-west). One rim sherd was observed within the scatter. The scatter is located [redacted] no artifact concentrations were observed. This scatter is near Locus 10 recorded by CRM Tech, a scatter with 15 ceramic sherds, one ground stone implement, and one fire-affected rock.
- *Locus 16.* A sparse scatter comprised of approximately 10 Tizon Brown Ware sherds over a relatively large area of the former lakeshore, and measures approximately 40 m (north-south) by 85 m (east-west). The scatter plots adjacent to some of the material identified during the 2004

survey. No concentrations of artifacts were observed. The scatter is located [redacted]

- *Locus 17.* This scatter is an apparent pot drop, and consists of a small concentration of approximately seven Tizon Brown Ware sherds over an area measuring approximately 2 x 2 m. The scatter is [redacted] Locus 17 is clearly related to the sparse artifact scatter identified [redacted] (see Figure 3). It is within the Travertine project boundary, and should be included within the boundary of CA-RIV-7394.
- *Locus 18.* A large scatter of approximately 100 Tizon Brown Ware sherds, 20 pieces of metavolcanic and chert lithic debitage, one chert Cottonwood Triangular point, and three flake tools over an area measuring approximately 55 m (north-south) by 60 m (east-west). The lithic material is concentrated near the center of the locus, in an area measuring approximately 5 x 5 m. The ceramic sherds are fairly evenly distributed across the whole scatter, with the exception of two small concentrations that may represent pot drops. There is a cleared circle approximately 1.5 m in diameter situated in the central south edge of the locus containing a single, burned, large mammal bone fragment (probably human) on the surface. The scatter is located at the approximate 50-foot contour level. It is approximately 100 m west of the previously recorded western boundary of CA-RIV-7394. Locus 18 is clearly related to the continuous artifact scatter identified [redacted] (see Figure 3). It is within the Travertine property area, and should be included within the boundary of CA-RIV-7394.
- *Locus 19.* This large scatter within CA-RIV-7394 is comprised of approximately 30 Tizon Brown Ware sherds over an area measuring approximately 35 by 35 m. There were no artifact concentrations observed. The GPS coordinates plot *Locus 19* at the same location as the Locus 9 designation in the CA-RIV-7394 site record by CRM Tech. The artifacts recorded by CRM Tech at that locus include over 65 ceramic sherds, one chipped stone, four ground stone fragments, and four fire-affected rocks, as well as a 1 x 2 m U-shaped rock alignment. This small rock alignment was not relocated by SWCA. Either the lush vegetation present during the 2005 SWCA survey obscured the rock feature, or the locations of the two loci do not actually overlap, due to the difference in recording methods. A hand-held GPS was used by SWCA, while CRM Tech apparently used a range finder and hand-held compass during field survey.
- *Locus 20.* A small, sparse scatter comprised of four Tizon Brown Ware sherds scattered over an area measuring approximately 15 x 15 m. The scatter is within the previously recorded boundary of CA-RIV-7394 [redacted]
- *Locus 21.* This large scatter is comprised of approximately 40 Tizon Brown Ware sherds, five lithic debitage that included metavolcanic and chert material, and a possible cultural concentration of cobbles and small boulders over an area measuring approximately 65 m (north-south) by 40 m (east-west). Although the majority of the scatter is located outside of the proposed Travertine project area [redacted] The rocky and gravelly soils on the fan are poorly developed. Near the center of the scatter there is a concentration of ceramic sherds, plus a concentration of small boulders and/or large cobbles that may represent a cultural feature. This scatter [redacted] previously recorded southern boundary of CA-RIV-7394. Considering its location on the former Lake Cahuilla shoreline, it should be included as part of that site.

[redacted] *Locus 22.* A small, sparse scatter comprised of approximately five Tizon Brown Ware sherds over an area measuring approximately 10 x 10 m. The scatter is situated [redacted]

- *Locus 23.* This is a scatter of approximately 20 Tizon Brown Ware sherds near the 40-foot Lake Cahuilla shoreline. Located along [redacted] of the proposed Travertine project and should be placed within CA-RIV-7394. As noted above, it is possible that this scatter may represent previously recorded site CA-RIV-1342, provided the recorded location for that site was inaccurate or if the site was subsequently disturbed by weather events.
- *Locus 24.* This sparse scatter is comprised of approximately 8-10 Tizon Brown Ware sherds over an area measuring approximately 30 x 30 m. The scatter is located [redacted] and is within the previously recorded boundaries of CA-RIV-7394 near its southern extent.
- *Locus 25.* This scatter is an apparent pot drop, and consists of a small concentration of approximately ten Tizon Brown Ware sherds over an area measuring approximately 3 x 2 m. The scatter is located [redacted] CA-RIV-7394.
- *Locus 26.* This sparse scatter is comprised of approximately seven Tizon Brown Ware sherds over an area measuring approximately 10 x 15 m. The scatter is located [redacted] CA-RIV-7394.
- *Isolated artifacts associated with CA-RIV-7394.*
    - *Isolate 1.* One Tizon Brown Ware sherd, located within the previously recorded central portion of CA-RIV-7394.
    - *Isolate 3.* Two Tizon Brown Ware sherds, located [redacted] CA-RIV-7394 boundary, and within a thin continuous scatter. Along with Locus 18, should be included within CA-RIV-7394.
    - *Isolate 4.* One Tizon Brown Ware sherd, located within the previously recorded [redacted] CA-RIV-7394.
    - *Isolate 5.* Three Tizon Brown Ware sherds, located within the [redacted] of CA-RIV-7394.
    - *Isolate 6.* One Tizon Brown Ware sherd, located within the previously recorded boundary of CA-RIV-7394 [redacted]
    - *Isolate 7.* One Tizon Brown Ware sherd, located [redacted] previously recorded CA-RIV-7394 boundary; should be included within that site.
    - *Isolate 8.* One Tizon Brown Ware sherd, located [redacted] CA-RIV-7394.
    - *Isolates 10-16.* One Tizon Brown Ware sherd at each location [redacted] CA-RIV-7394, previously the area of site CA-RIV-1334.

Newly Identified Cultural Resources

A total of seven previously unknown sites and an additional eight isolated artifacts were identified during the three periods of intensive survey. These newly identified cultural resources were [redacted] No prehistoric or historic cultural resources were observed in the vicinity of Access Roads #2 or 5, the ca. 17-acre block area to the east of Access Road #4, the southern tip of Coral Mountain, or the northwestern portion of Section 33.

An eighth archaeological site (CA-RIV-7963), another milling slick at [redacted] was identified during a visit to that area on 22 February 2006. The purpose of the visit was to clarify the location [redacted] in relation to Travertine versus BLM administered public lands. The

team included SWCA Archaeologist Stephen O'Neil, BLM CRS Wanda Raschkow, Stantec Engineering Surveyor Gary Beeler, and Steven DeLateur representing Travertine Corporation. Native American monitor Mr. William Contreras was also present and videotaped much of the informal survey. During that visit, the Stantec surveyor recorded UTM coordinates for two of the newly identified and five of the previously identified MMRS sites, using a Trimble 4700.

Five of the seven newly identified sites join the previously recorded sites around [redacted] for a total of 12 MMRS sites. Four of the sites recorded here (CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, and CA-RIV-7914) are located on [redacted] The fifth (CA-RIV-7963) is located [redacted]

The results of the intensive pedestrian surveys, including the site identified during the February 2006 visit (CA-RIV-7963), are detailed below, summarized in Table 6, and depicted on Figure 4. Figure 4 also shows the redrawn boundaries for CA-RIV-7394, revised as a result of the intensive survey, as well as the limited site testing, discussed below.

In addition to the prehistoric cultural material, a number of recent campsites, including a rock ring/hearth, were noted during the survey within [redacted] This recent use of the project area is shown on Figure 4 as small blue squares, and is addressed separately below.

Table 6. Cultural Resources Identified During Current Inventory

Primary No.	Trinomial	Description	Temporary field designation	Land Ownership
33-14844	CA-RIV-7911	Five milling slicks on a large boulder along base of Martinez Mountain Rock Slide.	SWCA Site #1	Travertine
33-14845	CA-RIV-7912	Single milling slick on a large boulder along base of Martinez Mountain Rock Slide.	SWCA Site #2	Travertine
33-14846	CA-RIV-7913	Single milling slick on a large boulder along base of Martinez Mountain Rock Slide.	SWCA Site #3	Travertine
33-14847	CA-RIV-7914	Single milling slick on a single boulder along the western edge of Martinez Mountain Rock Slide.	SWCA Site "BMF"	Travertine
33-14985	CA-RIV-7960	Ceramic sherd scatter of five pieces, one possibly Colorado Buff Ware, others Tizon Brown Ware. Near 5 ft. Lake Cahuilla shoreline; appears secondary context.	SWCA Site T-1	BOR
33-14986	CA-RIV-7961	Two ceramic sherd scatters, one of 5 pieces, another 15 meters south with 9+ sherds, of Tizon Brown Ware. Near 20 ft. Lake Cahuilla shoreline; appears secondary context.	SWCA Site T-2	BOR
33-14987	CA-RIV-7962	Rock cairn on desert pavement flat above a wash.	SWCA Site T-8	Travertine
33-14988	CA-RIV-7963	Single milling slick on a boulder at northwest base of Martinez Mountain Rock Slide.	SWCA Site SO-1	Travertine
33-14852	N/A	Large metate and mano.	SWCA Isolate #2	Travertine
33-14853	N/A	Flake scraper.	SWCA Isolate #9	Travertine

Table 6. Cultural Resources Identified During Current Inventory

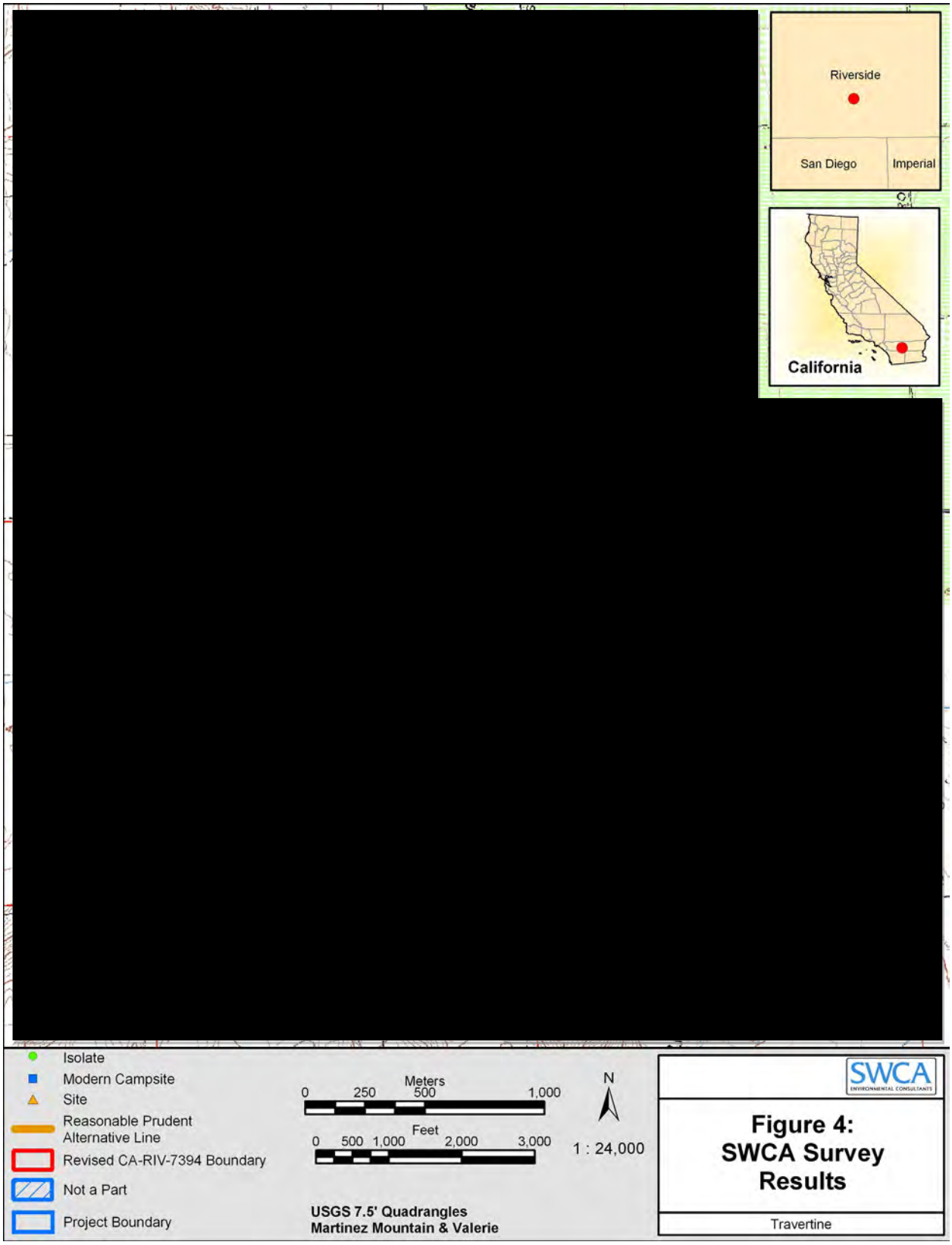
Primary No.	Trinomial	Description	Temporary field designation	Land Ownership
33-14854	N/A	One Tizon Brown Ware ceramic sherd. Near 20 ft. Lake Cahuilla shoreline.	SWCA Isolate T-3	BOR
33-14855	N/A	Three Tizon Brown Ware ceramic sherds; fit together as one piece.	SWCA Isolate T-4	Travertine
33-14856	N/A	One ceramic rim sherd, Tizon Brown Ware. Near Native American trail to CA-RIV-1331.	SWCA Isolate T-5	Travertine
33-14857	N/A	Four lithic flakes, possibly wonderstone.	SWCA Isolate T-6	Travertine
33-14858	N/A	Cruciform rock figure in desert pavement flat above a wash, possibly modern.	SWCA Isolate T-9	Travertine
33-14989	N/A	One Tizon Brown Ware ceramic sherd. On alluvial fan west of Coral Mountains.	SWCA Isolate PM #75	BLM

Five additional Martinez Mountain Rock Slide Sites

- **CA-RIV-7911**. This site consists of five milling slicks on a large boulder. It is located within [redacted] The presence of buried cultural deposits at this site is not likely, and there was no evidence of other archaeological material or a midden.
- **CA-RIV-7912**. This single milling slick on a large boulder is located [redacted] The presence of buried cultural deposits at this site is not likely, and there was no evidence of other archaeological material or a midden.
- **CA-RIV-7913**. This site consists of a single milling slick on one large boulder. It is located [redacted] The presence of buried cultural deposits at this site is not likely, and there was no evidence of other archaeological material or a midden.
- **CA-RIV-7914**. A single milling slick on a boulder is at present at this site, located [redacted] The presence of buried cultural deposits at this site is not likely, and there was no evidence of other archaeological material or a midden.
- **CA-RIV-7963**. This site consists of a single milling slick on a boulder at the northwestern tip of the MMRS. It is located [redacted] The presence of buried cultural deposits at this site is not likely, and there was no evidence of other archaeological material or a midden. This site was identified in February 2006.

CA-RIV-7960

This site is comprised of a scatter of four Tizon Brown Ware ceramic sherds and one possible Colorado Buff sherd, over an approximately 18 x 32 meter area. The site is located [redacted] Located on Federal lands administered by the BOR, this site appears to be in secondary context.


Riverside
San Diego
Imperial
California
Isolate
Modern Campsite
Site
Reasonable Prudent Alternative Line
Revised CA-RIV-7394 Boundary
Not a Part
Project Boundary
Meters
0 250 500 1,000
Feet
0 500 1,000 2,000 3,000
N
1 : 24,000
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 4:
SWCA Survey
Results
Travertine

CA-RIV-7961

This site is composed of two Tizon Brown Ware ceramic sherd scatters, separated by approximately 15 meters. One scatter contains five sherds; the second scatter has at least nine sherds. The site is located [redacted] Located on public lands administered by the BOR, this site appears to be in secondary context.

CA-RIV-7962

This site is a large rock cairn, 0.5 m in height, covering an area approximately 2.4 m by 2.2 m. The cairn is composed of approximately 100 stones, the majority of which exhibit desert varnish on their surface. This cairn was constructed on a flat desert pavement floor [redacted] Although there is no cultural material associated with the cairn, it is likely prehistoric. The site is located [redacted]

Newly Identified Isolated Artifacts

- **P-33-14852**. A large metate and mano located [redacted] Although the occupants of CA-RIV-7394 may have used these milling implements, the western boundary of that site is not likely to extend so far inland from the Holocene lakeshore.
- **P-33-14853**. A flake scraper located [redacted] approximately 1100 m west of CA-RIV-7394.
- **P-33-14854**. One Tizon Brown Ware ceramic sherd found within [redacted]
- **P-33-14855**. Three Tizon Brown Ware ceramic sherds, which fit together, located [redacted]
- **P-33-14856**. A single Tizon Brown Ware ceramic rim sherd, located [redacted]
- **P-33-14857**. Four lithic flakes, possibly wonderstone, located [redacted]
- **P-33-14858**. A likely prehistoric cruciform figure of rocks on the desert pavement, on a flat [redacted] The vertical segment of the figure is 1.14 m, with horizontal top bar 1.3 m. There is no cultural material associated with the rock arrangement to preclude the possibility of a recent origin.
- **P-33-14989**. One Tizon Brown Ware ceramic sherd found [redacted]

MODERN TRASH AND CAMPING DEPOSITS

Recent use of the Travertine project area for a variety of purposes has apparently been going on for some time and continues today. The majority falls under the loose heading of “recreational,” which includes hunting; target-practice with pistols, rifles and shotguns, and camping. Each of these activities leaves behind a particular type of residue. There are innumerable scatters of bullet casings and shotgun shells, some quite dense, many of the latter with fragments of “black plastic discs” adjacent; the result of target practice. The numerous isolated or small groupings of a few shell casings are the result of hunting. These

activities are also the occasion for "partying," which usually results in considerable amounts of litter and trash, mostly evidenced in large expanses of broken bottles of beer, spirits, and aerosol cans. Because of the litter, many areas within the project area and CA-RIV-7394 are actually hazardous to be in without protective footgear.

Camping trips often include the construction of campfire rings. For the most part, fortunately, modern campfires can be distinguished from prehistoric ones by their overall size, the arrangement of the rocks, location, and associated materials. If the modern campfire is situated within a prehistoric site, however, identification by simple surface survey observation is sometimes problematic. The locations of these modern campsites are shown as blue squares on Figures 3 and 4.

The dirt road that generally follows the north-south line between Sections 3 and 4 [redacted] The dirt track is identified on the USGS quadrangle as a "Jeep Trail" (see Figure 1). Most traffic is apparently confined to this strip where the terrain, adjacent to the former 40-foot contour Lake Cahuilla shoreline, is more open, flat, and less rocky than to the west. [redacted] has received a disproportionate share of recent abuse as a result. [redacted]

There is a large modern camp, as well as a recent rock ring/hearth [redacted] (see Figure 4). A dirt road starting at the north end of the primary access road goes to it, and several lanes branch out within the camp; two of these lanes are edged with rocks. There are several separate fire rings with their own sets of old furniture and lumber lean-tos. This material indicates that several people make, or made, use of this place on a regular basis over a period of several years.

In addition to the recreational and camping residues, the project area has numerous trash dumps extending west and east of the primary dirt access [redacted] The dumping of trash here by local people has apparently been going on for many decades. The great bulk of it appears to extend for approximately [redacted] That is, the extent of the trash deposits encompasses nearly the same area [redacted] The trash deposits are made up of piles of lumber, construction material, occasional furniture and appliances, and household goods (food containers, elementary school homework, shoes, etc.), while some older dumps consist of only rusted tin cans. These dumps are in distinction to the broken bottles, bullet casings and aerosol cans of the "recreational" deposits noted above. These are deposits of convenience, as seen by their proximity to the road. There is one abandoned automobile on the east side, half way to the levee. Field observations do not suggest any old historic dumps here. None is associated with any structures, or on-site habitation or economic use. Early USGS maps, including the 1901 Indio 30' and 1941 Toro Peak 15', do not show any structures in this vicinity.

LIMITED SITE TESTING OF CA-RIV-7394

SITE TESTING METHODS

The limited site testing of prehistoric of site CA-RIV-7394 was designed to determine the geographical extent of the site, and its relationship to CA-RIV-1342 and Travertine lands. This fieldwork took place in July 2005. Prior to the fieldwork, the BLM approved a Testing Plan submitted by SWCA in June 2005 (Sikes 2005).

Although none of the surface surveys performed over the past ten years by SWCA and others (Chace 1994; Hogan et al. 2004) identified any subsurface cultural deposits in the numerous channel cuts within

or near CA-RIV-7394, it was understood that there is a potential for locating buried deposits. Considering the site's potential eligibility for listing on the NRHP and CRHR, limited subsurface testing CA-RIV-7394 was planned for three areas bordering the Travertine property. The Testing Plan (Sikes 2005), which recommended placing a series of test units near previously identified scatters and isolates, was followed, except where local site conditions dictated strategy revision. During the fieldwork, additional test units were placed in a fourth area to clarify the southwestern extent of site CA-RIV-7394. In total, the four test areas were designed to determine:

[redacted]

The limited site testing was conducted from 11 to 20 July 2005 by Michael Tuma (Field Supervisor), Stephen O'Neil (Crew Chief), Jessica DeBusk, Kevin Hunt, Gary King, and Luis Burgos. A Native American monitor from the Torres-Martinez Reservation, Gary Resvaloso, was present each day during the testing program. Mr. Resvaloso also helped survey and was generous with his knowledge of the cultural significance of the site and surrounding region to the Desert Cahuilla. Mr. Joseph Loya, Manager of the Torres-Martinez Reservation Department of Properties, paid a visit on the first day of the fieldwork.

On 14 July 2005, Wanda Raschkow, BLM archaeologist with the Palm Springs-South Coast Field Office, visited the field operations. She observed test units being excavated and toured several of the ceramic sherd scatter localities.

An informal surface survey was conducted in each of the four areas prior to the placement of test units (TUs). All identified artifacts were flagged. Surface visibility was generally approximately 70%. In some areas of brush and grass in ravines, visibility was reduced to 10%, but on open desert pavement, it increased up to 90%

One by one meter square TUs were then placed to determine the presence or absence of cultural material. Each TU was excavated in 10-cm arbitrary levels, and documented using SWCA's standard level report forms. TUs were excavated to either bedrock or to culturally sterile conditions. Because the goal of the testing program was to determine the presence or absence of subsurface deposits, it was planned that units would only be excavated until cultural material was identified. Afterward, the units were terminated and backfilled.

A total of 17 1x1 m TUs were excavated (Table 7; Figure 5), each to a depth of 30 cm below the surface. Placement of some of the TUs corresponded to the location of loci or isolates recorded during the survey work. The location of each TU was recorded using a total station system, with a laser/electronic transit and stadia rod (Leica, model number TC-407). The surface of each unit was photographed prior to its excavation started. The floor of the last level completed in each unit was sketched; photographs were also taken of the lowest levels. The location of each TU was recorded with the Total Station. Three datums were used to record the locations of the TUs, the location of the westernmost artifact scatters between the units, the extent of scatters in the southern area of the site, and special features such as rock rings, Native

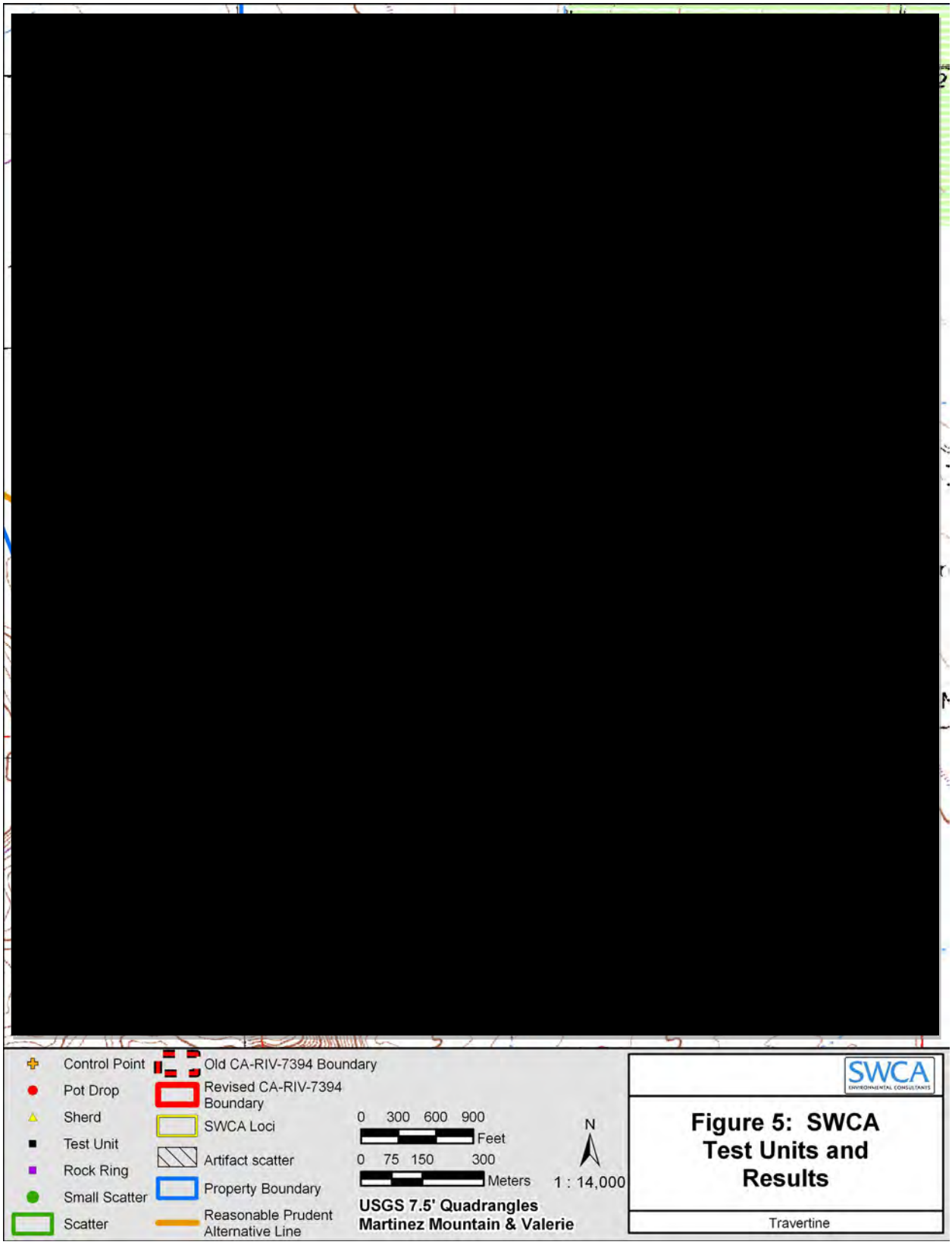
American trails, pot drops, and other items of interest. The three datums were tied to four known control points along the levee.

Table 7. Test Unit Locations and Results

TU #	Location	Placement	Depth (cm)	Results
1	[redacted]	[redacted]	30	Sterile
2	[redacted]	[redacted]	30	Sterile
3	[redacted]	[redacted]	30	Sterile
4	[redacted]	[redacted]	30	Sterile
5	[redacted]	[redacted]	30	Sterile
6	[redacted]	[redacted]	30	Sterile
7	[redacted]	[redacted]	30	Sterile
8	[redacted]	[redacted]	30	Sterile
9	[redacted]	[redacted]	30	Sterile
10	[redacted]	[redacted]	30	Sterile
11	[redacted]	[redacted]	30	Sterile
12	[redacted]	[redacted]	30	Sterile
13	[redacted]	[redacted]	30	Sterile
14	[redacted]	[redacted]	30	Sterile
15	[redacted]	[redacted]	30	Sterile
16	[redacted]	[redacted]	30	Sterile
17	[redacted]	[redacted]	30	Sterile

TUs 1-10. Ten systematically spaced 1x1 m TUs were placed along the [redacted] after flagging the previously recorded ceramic scatters. The TUs were placed at approximately 150-meter [redacted] The TUs extended for approximately 1190 m [redacted] TUs 1-8 and 10 were placed [redacted] That scatter is roughly contiguous with the [redacted] Due to the major ravine and sand deposits, no TUs could be placed between TU 8 and TU 17 near the southwest corner [redacted] To clarify the extent of [redacted] TU 9 was placed 10 m west of TU 7.

TUs 11-13. Only three TUs were planned within [redacted] of the Travertine property since occupation most likely [redacted] of former Lake Cahuilla. TU 11 was placed [redacted] Isolate 6, TU 12 approximately [redacted] Isolate 6, and TU 13 [redacted] Isolate 6.


Control Point
Pot Drop
Sherd
Test Unit
Rock Ring
Small Scatter
Scatter
Old CA-RIV-7394 Boundary
Revised CA-RIV-7394 Boundary
SWCA Loci
Artifact scatter
Property Boundary
Reasonable Prudent Alternative Line
0 300 600 900
Feet
0 75 150 300
Meters
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
N
1 : 14,000
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 5: SWCA Test Units and Results
Travertine

TUs 14-15. Two TUs were placed east of the recorded southern boundary of CA-RIV-7394 [redacted] These two units were placed as the terrain dictated, since it was cut by numerous deep washes coming out of the Toro Canyon area. The approximate location of CA-RIV-1342 was determined [redacted] and placing TU 14 [redacted] The recorded location of CA-RIV-1342 was within the wash and devoid of surface soils. TU 15 was placed [redacted] of TU 14.

TUs 16-17. As recorded by CRM Tech, the southern extent of CA-RIV-7394 [redacted] During SWCA's July 2005 fieldwork, the extent of surface scatters, isolates, and features was recorded in an effort to document the extent of surface material on the Travertine property. This work indicated that the southern boundary of CA-RIV-7394 was more extensive than previously recorded, particularly around Locus 21. With this greater areal extent in mind, we checked for additional surface artifacts [redacted] An additional artifact scatter was found immediately outside the previously recorded [redacted] (described below; see Figure 5). TUs 16 and 17 were placed [redacted] TU 8 and [redacted] No surface scatters were identified in the area of these two TUs.

SITE TESTING RESULTS

No prehistoric or historic cultural material was identified in any of 17 TUs (Table 7; Figure 5) excavated to a depth of 30 cm below the surface during limited site testing of CA-RIV-7394 in July 2005. Since no artifactual material was identified subsurface, no additional TUs were excavated beyond those placed corresponding to the location of loci or isolates recorded during the recent pedestrian surveys (see Figure 3).

Although no subsurface material was identified, this period of relatively intense activity permitted additional observations about the loci within and areal extent of site CA-RIV-7394. Figures 4 and 5 depict a [redacted] expansion of the boundaries of this prehistoric site based on the results of the July 2005 fieldwork. The figures also show that the [redacted]

Since both TU 1 and TU 10 were negative for cultural material, the small scatter of Tizon Brown Ware ceramic sherds at [redacted] (see Photograph 3) [redacted] of site CA-RIV-7394. At the [redacted]. An additional artifact scatter was found immediately outside the previously recorded [redacted] Locus 27 (Figure 5). Locus 27 is described as:

> [redacted] *Locus 27*. This locus is comprised of two rock rings and a sparse scatter of approximately 50 Tizon Brown Ware sherds over an area measuring approximately 75 x 50 m. The outside diameters of the two rock rings measure 2.1 and 2.3 m, respectively. The scatter is located [redacted]

TUs 16 and 17, which had been placed [redacted] Locus 27, were negative for cultural material (see Photograph 4). In addition, since there were no surface scatters recorded in the area of TUs 16 and 17, Locus 27 [redacted] CA-RIV-7394.

Photograph 3. Pottery rim sherd – [redacted] CA-RIV-7394

Photograph 4. Test Unit #17 – floor

Between the [redacted] of the site, a more detailed inspection of the area surrounding Locus [redacted] confirmed an earlier indication that this large scatter, along the high shoreline of Holocene Lake Cahuilla, is a westward extension of CA-RIV-7394. A light scatter of Tizon Brown Ware sherds was observed [redacted] The light scatter continued [redacted] These results also indicated that Isolate 3, [redacted] of Locus 18, be included [redacted] for CA-RIV-7394.

The lithics previously noted at Locus 18 were not observed in July 2005, even though three of the same crewmembers were present. It is possible that vandals had taken the chert Cottonwood Triangular point during the intervening months. Tire tracks were clearly visible from the main access road up to the edge of the scatter.

Within the [redacted], three TUs (11–13) placed near Isolate 6 were negative for cultural material. It is likely that Isolate 6 was washed from the gullies to the south [redacted] and then redeposited. A negative finding here in the lower elevation of the Travertine property's [redacted] confirms the field observations that the site boundary [redacted] With the slight contraction of the [redacted], Isolate 6 is no longer within the boundary of CA-RIV-7394. Since it appears to be in secondary context, however, no separate isolate form was prepared.

Two TUs (14 and 15) placed along [redacted] of the previously recorded boundary of CA-RIV-7394 were devoid of cultural material, so no additional TUs were excavated at the previously recorded location of CA-RIV-1342 (compare Figures 2 and 5). As noted during the pedestrian survey, no evidence of CA-RIV-1342 was found in its recorded location, although surface visibility was good in the area. Most likely the large, diffuse ceramic sherd scatter reported at CA-RIV-1342 was dispersed, washed further down slope, or buried during the intervening years by possible flash flood waters emerging from Toro Canyon. Alternately, the location of the cultural material originally observed by others in 1972 and 1990 was misplotted and is actually farther to the west. The material may thus represent one of the southeast loci identified within CA-RIV-7394.

Along the [redacted] boundary of CA-RIV-7394, [redacted] were noted as each containing relatively dense sherd scatters along the same north/south range. The fingers are on [redacted] had been recorded during the field survey. While the original Locus 21 is the largest of these fingers, the other six contain the same artifactual material (mostly Tizon Brown Ware sherds). The cultural material extends across the fingers of land, separated from one another by narrow and relatively deep ravines.

In addition to the hundreds of Tizon Brown Ware ceramic sherds identified at Locus 21, rock rings (see Photograph 5), a Native American trail, a likely Cottonwood series projectile point (base is missing), and grinding slicks were also present. Because of the areal continuity, material previously recorded separately, as Loci 20 and 24, as well as Isolates 4 and 7, have been grouped with Locus 21 as one locus. This expanded Locus 21 is shown in Figure 5 as a semi-circle encompassing the several adjacent scatters recorded with the Total Station. It also overlaps the western extent of Locus 23. Two rock rings and a pot drop are also shown within Locus 21. BLM archaeologist, Wanda Raschkow, identified one of the rock rings during her site visit on 14 July 2005.

Photograph 5. Stone ring in Locus 21. View to the east.

The southern extent of expanded Locus 21 or of the trail was not identified since the primary purpose of the July testing was to determine the extent of site CA-RIV-7394 in relation to the planned Travertine development. The trail is likely the same segment of a Native American trail recorded within Locus 4 on the original CA-RIV-7394 site record[redacted]. The surface scatter at Locus 21 also appears to continue toward the base of the rocky slopes (see Photograph 6).

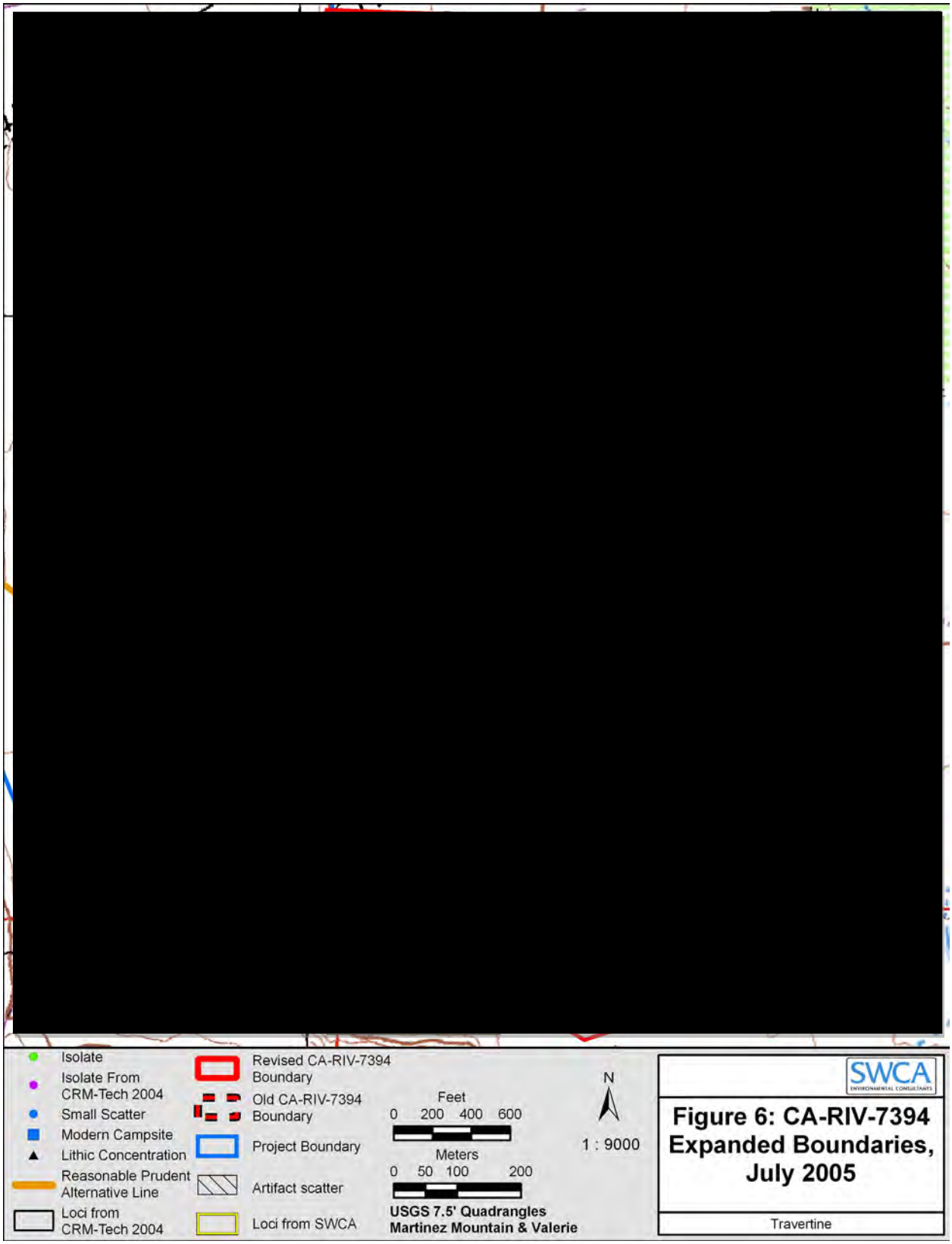
A second trail, originally recorded by CRM Tech as part of Locus 8, was relocated during the July 2005 fieldwork. This trail heads [redacted] SWCA archaeologist Kevin Hunt explored the [redacted] to a rock wall shown on Figure 5. The rock wall is identified with site CA-RIV-1331 (see Figure 2). The trail is part of a network of Native American trails connecting the village of *Mauūlmiī* to bedrock milling sites along the [redacted] (see CA-RIV-1331 site record; Schaefer et al. 1993:Fig. 8; W. Raschkow, personal communication December 2005). This particular trail is said to head up the slope directly above CA-RIV-1331 through a slight ravine, allowing clans at *Mauūlmiī* to return to resource collecting sites in the Santa Rosas from which they had originally come prior to living on the desert floor (G. Resvaloso, personal communication July 2005). As noted in the Ethnography section, Resvaloso has also suggested that the southwestern portion of CA-RIV-7394 be identified with the village of *Mauūlmiī*.

A third Native American trail is shown on Figure 5 [redacted] BLM CRS Raschkow earlier identified this trail, and provided a copy of her map for inclusion in this report, as a further example of the regional trail network.

Photograph 6. Native American trail in Locus 21 (stone ring in left foreground). View to the south.

To summarize, in July 2005, SWCA archaeologists typically observed a less dense, but continuous scatter of ceramic sherds between the known concentrations observed during March 2005. This pattern indicated that Loci 11, 17 and 18, located [redacted] CA-RIV-7394 previously recorded boundary, are not independent but are part of CA-RIV-7394. The same pattern was found along [redacted] confirming that Isolate 7 and Loci 21, 23 and 24, as well as Locus 27 in the [redacted] are also part of CA-RIV-7394. Considering the extent of the site complex designated as CA-RIV-7394 and the location of these artifacts on [redacted] plus the light scatters of ceramic sherds between the concentrations, it is the opinion of SWCA that the boundaries of CA-RIV-7394 should be extended to include the area represented by the designated loci.

As detailed on Figure 6, with the expanded [redacted] CA-RIV-7394 measures approximately 450 x 1600 m. It is comprised of 25 loci (Loci 1–19, 21–23, 25–27) and two segments of Native American trails. Ten loci were recorded by CRM Tech in 2003; 17 loci were recorded during the current endeavor by SWCA, and three of these loci then combined as one (expanded Locus 21). SWCA was not tasked with relocating the features or loci within site CA-RIV-7394 previously recorded by CRM Tech. Also shown on Figure 6 is the third Native American trail previously identified by BLM CRS Raschkow.


Isolate
Isolate From CRM-Tech 2004
Small Scatter
Modern Campsite
Lithic Concentration
Reasonable Prudent Alternative Line
Loci from CRM-Tech 2004
Revised CA-RIV-7394 Boundary
Old CA-RIV-7394 Boundary
Project Boundary
Artifact scatter
Loci from SWCA
Feet
0 200 400 600
Meters
0 50 100 200
USGS 7.5' Quadrangles
Martinez Mountain & Valerie
N
1 : 9000
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 6: CA-RIV-7394 Expanded Boundaries, July 2005
Travertine

DISCUSSION

CA-RIV-7394

Boundaries

Results from the surface surveys and testing program conducted by SWCA during 2004 and 2005 permit a more accurate determination of the boundaries of site CA-RIV-7394 to the [redacted] The data also update information on the boundaries of the site with reference to Travertine Corporation property (compare Figures 2 and 5).

The [redacted] CA-RIV-7394 extends along its entire length into the Travertine development property. Locus 11 is defined as [redacted] The extreme [redacted] increased to include Locus 27, now also expands into the project property's corridor near the intersection of [redacted]

Precise UTM coordinates along the western edge of the site were recorded in May 2006 with the assistance of the Stantec surveyor team, using a Trimble 4700. SWCA archaeologist Stephen O'Neil directed the surveyor to the edge of the loci or surface scatters, beginning at the [redacted] Stantec stopped collecting UTM data at the intersection of the site boundary with the RPA Line.

The site bulges further [redacted] well past the [redacted] incorporating newly identified loci (ceramic scatters and rock rings), as well as isolates and other ceramic scatters identified during previous surveys. These loci, as well as a Native American trail [redacted] where previously recorded archaeological sites are located.

The [redacted] CA-RIV-7394 was established through survey and the excavation of test units. The same methods were used to show the absence of CA-RIV-1342 in its previously recorded location. Combined with repeated failures to relocate that site in the past, it is suggested that CA-RIV-1342 may have been previously misplotted and is actually one of the artifact scatters within [redacted] CA-RIV-7394.

The placement of test units and surface observation confirmed that site CA-RIV-7394 [redacted] We have thus indicated that the site boundary in the [redacted] Prehistoric artifacts identified below this level in this area are likely redeposited.

The eastern boundary of the site has also been redrawn. After incorporating Locus 12 near the [redacted] Prehistoric artifacts identified further [redacted] in this area are likely redeposited.

Updated Description

The expanded boundaries of multi-component site CA-RIV-7394 are detailed on Figure 6. The [redacted]

[redacted]

With these expanded boundaries, CA-RIV-7394 now measures approximately 450 x 1600 m and is comprised of 25 loci (Loci 1–19, 21–23, 25–27), two segments of Native American trails, rock rings, projectile points (Desert Side-Notched and Cottonwood Triangular series), a thin, near continuous scatter of ceramic sherds along its western edge, and numerous isolated ceramic sherds and pot drops. Each locus consists primarily of ceramic sherd scatters, which are mainly Tizon Brown Ware, with some Colorado Buff Ware fragments. CRM Tech recorded ten loci during their survey in 2003; 17 loci were recorded by SWCA during the current endeavor in 2004 and 2005. After initial recordation, however, SWCA regrouped continuous scatters within Loci 20, 21, and 24 as the expanded Locus 21 shown on Figure 6. Part of [redacted] Locus 23 also extends into the enlarged Locus 21.

Additional cultural features recorded by either CRM Tech or SWCA as part of site CA-RIV-7394 include four cremation features, bedrock milling features, groundstone fragments, possible prehistoric hearths, fire-affected rock, and a U-shaped rock alignment. Toolstone recorded at the site includes wonderstone, chalcedony, metavolcanic rock, and chert.

Segments of Native American trails were identified in Loci 3, 4, and 21 in the [redacted] The trail recorded in Locus 4 by CRM Tech and later in Locus 21 by SWCA is likely the same trail segment that [redacted] The trail in Locus 8 extends [redacted] CA-RIV-1331. This network of trails suggests that site CA-RIV-7394 was part of a settlement system with a large resource procurement network, discussed further below.

An updated site record form for CA-RIV-7394 is appended to this report as part of *Confidential Appendix E*.

Association with Mauūlmiī Village

Based on the oral history provided by Gary Resvaloso, the [redacted] CA-RIV-7394, which is recorded as Loci 5–8, has been tentatively identified with the Desert Cahuilla village of *Mauūlmiī*. Ceramic sherd scatters, probably indicating temporary camps for gathering earlier lakeshore-related resources [redacted] On the other hand, loci within the [redacted] contain a variety of features related to settlement, including rock circles, grinding slicks, hearths, and cremations. These loci are situated [redacted] Gary Resvaloso indicated that hollows between the sand deposits were places where water would pool and could be used for vegetable gardens. A further aspect that made this place suitable for a village is that this is where three trails come down from the Santa Rosa Mountains meet (see Figure 6, and discussion below). All three trails meet at these sand deposits and the residential base, which research indicates was an actual destination, not merely an intersection leading elsewhere.

A concentration of ceramic sherds follows the [redacted] providing a link with Locus 8 of the village site. A Native American trail also runs along the [redacted] connecting with other trails at site CA-RIV-1331. This trail then follows a near vertical ravine up the cliff to the plateau above, where the trail continues into the higher elevations of the Santa Rosa Mountains where other resources could be gathered. Conversely, when Lake Cahuilla was at its highest level, inhabitants of settlements in the mountains who traveled to the lowlands for gathering resources may have

used this trail. It is apparently the same trail that was used by the Cahuilla clan who came out of the mountains to settle the village of *Mauūlmiī* in the distant past.

Association with MMRS Sites

Site CA-RIV-7394 was apparently part of a regional settlement system within a large resource procurement network. To the west of CA-RIV-7394, there are 12 sites situated along [redacted] the previously recorded sites are CA-RIV-1331, CA-RIV-1349, CA-RIV-5323, CA-RIV-3874, CA-RIV-3873, CA-RIV-3872, and CA-RIV-5322 (Figure 2). SWCA personnel surveying [redacted] recorded four milling stations: CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, and CA-RIV-7914 (Figure 4). A fifth milling station, CA-RIV-7963, located between CA-RIV-3873 and CA-RIV-3874, was later recorded during the visit with the Stantec surveyors (Figure 4). All of the MMRS sites have bedrock milling features; nine of the sites are only milling slicks. In addition, two (CA-RIV-1331 and CA-RIV-1349) of the 12 sites are rock shelters and one (CA-RIV-3874) is associated with a ceramic sherd scatter, with both Tizon Brown and Colorado Buff Wares.

The closest of the 12 MMRS sites to CA-RIV-7394 is CA-RIV-1331, located [redacted] There is a trail along the [redacted] (Figure 6) [redacted] (Bean 1990:3, 11; Wanda Raschkow, personal communication December 2005).

Data recovery at the two rock shelters suggests CA-RIV-1331 and CA-RIV-1349 were “temporary camps for exploitation of the lacustrine environment of prehistoric Lake Cahuilla” that were “contemporary with the last lacustral interval of the lake around A.D. 1600” (Schaeffer et al. 1993:5). The faunal assemblages included an abundance of *Anodonta* clam shells, as well as a high frequency of fish remains relative to mammal bones (Schaefer et al. 1993:88).

In addition, the milling features and recovered ground stone indicate the occupants at the two rock shelters also processed plants from the surrounding area. Since boulders suitable for processing a greater variety and abundance of plant resources during this period were, and still are, scarce on the alluvial fan dropping to the shoreline, milling was accomplished at the base of the MMRS. The base of the MMRS has a profusion of boulders suitable for plant processing, and all 12 of the MMRS sites contain milling features that were used for processing plant resources.

The data indicate that sites CA-RIV-1331 and CA-RIV-1349 were part of a regional settlement system during the Patayan II Period (Schaefer et al. 1993; Pallette and Schaefer 1995). The artifact assemblages contain a high frequency of Tizon Brown Ware, which was produced from upland clay sources in the Santa Rosa Mountains. Schaefer and others suggest the residential bases at this time were located in the upland environments rather than along the Lake Cahuilla shoreline. It is likely that their seasonal rounds included forays from the Santa Rosa Mountains to the western edge of CA-RIV-7394. The large number of ceramic sherds along the [redacted] suggests that these were seasonal camps. Like the assemblage at the two rock shelters, Tizon Brown Ware comprises the majority of the recorded surface ceramic scatters within CA-RIV-7394. It is possible that the lower elevation (eastern) portions of site CA-RIV-7394 were underwater at this time.

After the final desiccation of Lake Cahuilla, the desert floor was available for habitation, and permanent villages were established by the end of the Patayan III Period. *Mauúlmií* village, later the Contact Period village of Toro, was established along the Toro Canyon wash. Toro Canyon wash is also fed by the wash coming out of the MMRS that passes through the [redacted] CA-RIV-7394. The Desert Cahuilla continued to gather seasonal resources at the higher elevations, and use the boulders along the base of the MMRS for grinding plants. The same trail system would have been maintained, now used by the occupants of the desert floor to reach the animal and plant resources of the Santa Rosa Mountains in Piñon Flats and Casa de Cuerva (Bean 1990:11).

It is apparent from this discussion that CA-RIV-7394 and the 12 sites along [redacted] were part of the same regional settlement network. During prehistory when Holocene Lake Cahuilla was filled with fresh water, the sites were temporary camps used to exploit the local lacustrine resources. The trail network that developed to link these sites to the lakeshore and to the highland settlements also served when the lake was desiccated to link the desert floor villagers to food, mineral, and other resources in the mountains.

VANDALISM

Vandalism and pot hunting at CA-RIV-7394 and surrounding prehistoric sites have apparently caused considerable loss of data. The recollections of long-time local residents who have visited the site periodically since the 1930s are that CA-RIV-7394 had many more ceramic sherds in the past, as well as a number of partial and complete vessels (Leslie Mouriquand, personal communication July 2005). None of the latter is currently present. Vandalism was reported on site record forms for CA-RIV-1342 (“potting”), and CA-RIV-1351/1341 (“and potted”), both sites representing large concentrations that are now recognized as components of CA-RIV-7394.

Several past archaeological surveyors noted in site record forms that they collected large portions of sherd scatters seen at sites, and on two occasions made a collection of sherds from small site scatters. As noted in site records, the petroglyph sites of CA-RIV-10, CA-RIV-193, and CA-RIV-6404 that are within [redacted] of the Travertine property have been vandalized by spray-paint and graffiti.

The construction of camps and fire rings can be equally damaging to prehistoric sites. Examples are the two modern rock ring features identified in Loci 8 and 9 of CA-RIV-7394 (see Figure 6), as well as the modern campsites within the [redacted] shown on Figure 4.

SITE EVALUATIONS

Based on the research design and results discussed above, SWCA’s evaluation of the significance of the archaeological sites found within the current study area is presented in the following sections. Included are SWCA’s recommendations regarding whether the sites meet the official definitions of a “historic property” or a “historical resource” as defined by Section 106 and CEQA regulations.

The recorded locations of eight isolates, comprised of ceramic sherds, groundstone, chipped stone, or a rock figure at each location, have been fully documented as part of this Class III inventory. An additional 10 isolated finds, consisting of ceramic sherds or chipped stone, were recorded previous to the current study. These isolated finds include no further potential to contribute to cultural heritage issues, and by definition, are not eligible for listing on the NRHP or CRHR.

EVALUATION CRITERIA

In order for a cultural resource to be considered a "historic property" NRHP criteria (i.e., eligible for inclusion on the NRHP), it must be demonstrated that the resource possesses *integrity* of location, design, setting, materials, workmanship, feeling and association, and must meet at least one of the following four criteria delineated by Section 106 (Advisory Council on Historic Preservation 2000), as listed in 36 CFR 60.4:

(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) that are associated with the lives of persons significant in our past; or
(c) that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
(d) that have yielded, or may be likely to yield, information important in prehistory or history.

The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties. According to PRC SS5024.1(c)(1-4) a resource is considered *historically significant* if it meets at least one 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 installation, or represents the work of an important creative individual, or possesses high artistic values; or
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archeological site is not an historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
> (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing on the NRHP or CRHR nor qualify as a "unique archaeological resource" under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, "A nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" [PRC Section 21083.2(h)].

The archaeological sites identified within the current project area are evaluated under the criteria for listing on the NRHP and CRHR pursuant to these statutory and regulatory guidelines. The results of the evaluations for each site are presented below.

SITE EVALUATIONS

CA-RIV-3872 is a bedrock milling station [redacted] of the MMRS. Previously, the SHPO concurred with the BLM in determining that this site was not eligible for listing on the NRHP or CRHR. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-3872 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-3873 is a bedrock milling slick [redacted] of the MMRS. Previously, the SHPO concurred with the BLM in determining that this site was not eligible for listing on the NRHP or CRHR. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-3873 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-3874 is a bedrock milling slick and ceramic sherd scatter [redacted] of the MMRS. Previously, the SHPO concurred with the BLM in determining that this site was not eligible for listing on the NRHP or CRHR. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-3874 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-3875 was recorded as a small surface scatter of ceramic sherds that appeared to be in secondary context and thus does not retain integrity. Two attempts to relocate this site were unsuccessful, by the Keith Companies in 1994 (Chace 1994:19) and by SWCA in 2005, suggesting the scatter has been dispersed and transported further down the [redacted] In agreement with Chace (1994:22), SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-3876 was recorded as a small surface scatter of ceramic sherds that appeared to be in secondary context and thus does not retain integrity. Two attempts to relocate this site were unsuccessful, by the Keith Companies in 1994 (Chace 1994:19) and by SWCA in 2005, suggesting the scatter has been

dispersed and transported further down the [redacted]. In agreement with Chace (1994:22), SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-5319 consists of a surface scatter of ceramic fragments located at the [redacted] of former Lake Cahuilla. The disturbance by flood control (dike) construction activities, off-road vehicles, and recreational horse riding possibly destroyed a portion of this site (Chace 1994:20), and likely destroyed any further research potential. Also, there were no midden or subsurface deposits evident at the time of initial recordation or when the site was relocated in 2006. In agreement with Chace (1994:22-23), SWCA finds that the site has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-5320 is the remnant of an isolated pot drop that has been disturbed by flood control (dike) construction activities. In agreement with Chace (1994:22), SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-5321 consists of an isolated stone ring feature, with no associated artifacts. In agreement with Chace (1994:22), SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-7394 is a large multi-component site consisting of 25 loci, two segments of Native American trails, a thin, near continuous ceramic sherd scatter along its western boundary, rock rings, projectile points (Desert side-Notched and Cottonwood Triangular series), and numerous isolated ceramic sherds and pot drops. The site extends generally along the [redacted] of Holocene Lake Cahuilla at the base of the Santa Rosa Mountains. It is currently unknown if there is a buried component to the site; current efforts were designed to identify its horizontal extent. Each locus consists primarily of ceramic sherd scatters, mainly Tizon Brown Ware with some Colorado Buff Ware fragments. Additional cultural material recorded within the site includes four cremation features, bedrock milling features, groundstone fragments, possible prehistoric hearths, fire-affected rock, and a U-shaped rock alignment. Further, site CA-RIV-7394 may be associated with the Toro village complex of *Mauūlmiī*, the western extent of which is located [redacted].

Previously, Hogan et al. (2004:35-36) determined that site CA-RIV-7394 qualified as a "historic property" and "historic resource" and recommended that the site was eligible for listing on the NRHP and CRHR. In agreement with this recommendation, SWCA finds that site CA-RIV-7394 clearly contains and has yielded important information for understanding the prehistory and ethnohistory of the area. The site contributes significant information to our knowledge of the Late Prehistoric Period of cultural development in the Coachella Valley region, including data on the cultural chronology, subsistence systems, and settlement patterns within the valley. Site CA-RIV-7394 also has the potential to add to our knowledge of the Desert Cahuilla during the Ethnohistoric Period since a portion of the site may be part of the village of *Mauūlmiī*.

Based on the range of artifacts (pottery and projectile point types), occupation of site CA-RIV-7394 occurred during the Late Prehistoric Period (Patayan II and Patayan III). In addition, within the southwest corner of the site are four loci (Loci 5–8) that have been tentatively identified as a portion of the Late Prehistoric and Contact Period Desert Cahuilla village of *Mauūlmiī*. This identification is based, in part, on the presence of Late Prehistoric artifacts at the site, plus the site's location [redacted] its proximity to the Toro village complex, and the oral history provided by the Cultural

Resource Coordinator for the Torres Martinez Desert Cahuilla Indians. In support of this relationship, ethnohistoric data indicates Cahuilla villages were typically composed of widely scattered dwellings (Bean 1972, 1990).

The location of site CA-RIV-7394 and its association with a trail network provides valuable information on subsistence practices during the Late Prehistoric Period, and most likely the Ethnohistoric Period. The relationship of site CA-RIV-7394 to the trail network, connecting it with the base of the MMRS and the Santa Rosa uplands, indicates occupants of the site depended on resources collected from both lowland and upland ecological communities. Although known plant or animal remains within the site are limited to four unidentified pieces of animal bone recorded in Locus 6, the site assemblage contains a variety of features and artifacts related to processing or obtaining food resources. These include milling features, groundstone, ceramics, hearths, chipped stone, and projectile points. A similar range of artifacts was recovered from the excavations at two Patayan II Period sites at the [redacted] (CA-RIV-1331 and CA-RIV-1349), as well as fish, shellfish, and faunal remains from upland and lowland environments (Schaeffer et al. 1993). Resource collecting continued in the uplands and lowlands during ethnohistoric use of the area. It is possible that analysis of artifacts (e.g., protein residue or use-wear analysis) from site CA-RIV-7394 may provide more detailed information on the specific resources (e.g., fish, shellfish, plants, rabbits, etc.) procured by the site occupants during periods of infilling or desiccation of the former lake.

Interpretation of the archaeological assemblage at CA-RIV-7394 indicates that it functioned as a habitation site during at least three different cultural periods, and that the cyclical filling and desiccation of Lake Cahuilla dictated the settlement patterns in this area. The site represents the remnants of a shoreline habitation area along the high stand of former Lake Cahuilla during the Patayan II Period. It also represents occupation of the area after the final desiccation of the lake during the subsequent Patayan III Period. In addition, cultural material within the site likely represents occupation at this location during the Ethnohistoric period, particularly within the southwestern portion of the site that may be part of the village of *Mauūlmiī*.

Based on the location and content of the archaeological features, it appears that habitation patterns at site CA-RIV-7394 may have changed through time. Ceramic Tizon Brown Ware sherd scatters dominate the north portion of the site and probably represent temporary camp areas used while gathering lakeshore-related resources during the Patayan II Period. It is likely that the extensive ceramic scatter accumulated over time during reoccupation of this former shoreline. On the other hand, loci within the southwest corner of the site contain a variety of features related to more long-term settlement, including rock circles, grinding slicks, hearths, and cremations. This area also contains the relatively few fragments of Colorado Buff Ware noted at the site, which are associated with the Patayan III Period.

The four southwestern loci are situated [redacted] As noted, the features are likely representative of residential occupation after the final desiccation of the lake during the Patayan III Period. Gary Resvaloso, the Torres Martinez Desert Cahuilla Indians Cultural Resource Coordinator, has indicated that hollows between the sand deposits were places where water would pool and could be used for vegetable gardens, as recorded during the Ethnohistoric Period. A further aspect that made this area suitable for a village is the convergence of the three trails emerging from the Santa Rosa Mountains. All three trails meet at these sandy deposits and the residential base at CA-RIV-7394, which is interpreted as an actual destination, not merely an intersection leading elsewhere.

As a habitation site that was occupied during the Late Prehistoric Period into the Ethnohistoric Period, the cultural evidence within CA-RIV-7394 provides valuable information regarding the local settlement system and the settlement system theories proposed for the Coachella Valley. The site is clearly an

element of a prehistoric and ethnohistoric settlement system with a large resource procurement network, as evidenced by the trail system and the 12 identified sites [redacted] The network of trails would have connected CA-RIV-7394, the MMRS sites, and the Santa Rosa Mountains during the high stands of Holocene Lake Cahuilla during the Patayan II Period, as well as after the final desiccation of the lake during the subsequent Patayan III Period. Use of these trails continued into the Ethnohistoric Period, and they are still used today by the local Desert Cahuilla when collecting plant resources. Data recovery from the temporary camps at the two MMRS rock shelters, for example, indicates upland residents used the trails to exploit lacustrine resources during the Patayan II Period (Schaeffer et al. 1993; Pallette and Schaefer 1995). The trail network was also used to access the profusion of [redacted] suitable for plant processing, as well as the upland clay sources used to produce Tizon Brown Ware.

The narrow range of activities represented by the artifact and feature assemblage at site CA-RIV-7394, plus the lack of high status and ceremonial items, tends to support the Lake Cahuilla settlement theory presented by Weide (1976); namely that residence on the fluctuating shoreline was temporary and limited to temporary camps established by small groups of opportunistic foragers. The results of the excavations at the two Patayan II Period rockshelters [redacted] (CA-RIV-1331 and CA-RIV-1349) also support this theory, and suggest the seasonal camps along the high stand of the lake were likely connected by the series of trails to residential bases located in the uplands (Schaefer et al. 1993; Pallette and Schaefer 1995). The prevalence of upland-produced Tizon Brown Ware at the two rockshelters, as well as at CA-RIV-7394, supports this theory. In addition, ethnohistoric accounts of the Toro Canyon area (Bean 1990) emphasize that lowland resources were exploited from upland base camps during infillings of Lake Cahuilla. On the other hand, the more residential features in the [redacted] CA-RIV-7394 may represent later establishment of sedentary villages on the valley floor during the Patayan III Period. Residents during this period continued to use the trail network for travel to special-purpose smaller sites in the Santa Rosa Mountains for the collection of seasonal upland resources.

The importance of the trail network, recorded in part within CA-RIV-7394, to the regional settlement system in this area during the Late Prehistoric and Ethnohistoric Periods is unmistakable. The artifact assemblage at site CA-RIV-7394, however, provides limited information regarding the magnitude of long-distance trade within this system. The only non-local material identified at the site is one Desert Side-Notched projectile point made from wonderstone, located in Locus 1 in the [redacted] and a relatively few pieces of Colorado Buff Ware. If additional exotic material, such as obsidian or shell beads, was once present at the site, pothunters may have removed it. *Olivella* shell beads from the Gulf of California, for example, in addition to Colorado Buff Wares and wonderstone artifacts, were recovered from CA-RIV-1331 and CA-RIV-1349.

Site CA-RIV-7394 may also possess Native American heritage value. The Cultural Resource Coordinator for the Torres Martinez Desert Cahuilla Indians indicated that the project area lies within the territory defined as the Tribe's Traditional Use Area. He also informed that the Cahuilla people of the adjacent Torres-Martinez Reservation value site CA-RIV-7394 as an important and irreplaceable part of their cultural heritage. In addition, during the course of the fieldwork, based on the oral history provided by Mr. Resvaloso, loci within the [redacted] CA-RIV-7394 have been tentatively identified as a portion of the Late Prehistoric and Contact Period Desert Cahuilla village of *Mauūlmiī*. Today, members of the reservation can trace their families to lineages of the *Mauūlmiī* village community.

The current study resulted in the documentation of multiple surface loci, including four cremation features, at CA-RIV-7394. The vast majority of the artifacts encountered did not appear to be ceremonial in nature. Artifacts can be considered sacred or ceremonial when associated with burials, ritual/ceremonial features, or other sacred places. At the time CRM Tech identified three cremation features in 1994, artifacts were associated with only one. These included ceramic sherds and a Desert

Side-Notched chalcedony point. There were no artifacts within the cleared circle containing the cremation features within Locus 18 identified by SWCA in 2006.

In regard to the Native American trails that are recorded as part of CA-RIV-7394, as well as CA-RIV-1331, it was noted by Lowell Bean, the Toro Canyon Cahuilla ethnographer that:

> Some Cahuilla today are concerned about the preservation of trails. There is a visible presence of trails throughout the area. To the extent possible trails should be saved. Their historical use and significance, detailed surveying, and mapping should be done…. These trails may still be used by Cahuillas visiting the Toro Canyon area and the Casa de Cuerva area. There is a trail to the base of the rockslide. (Bean 1990:11)

Site CA-RIV-7394 is not documented, either historically or ethnographically, as a sacred site. However, use of the site by Native Americans did continue after the arrival of European immigrants. As noted above, it is a valued piece of the cultural heritage of the local Desert Cahuilla. In addition, individuals from the adjacent Torres-Martinez Reservation continue today to use the trails that are recorded as part of CA-RIV-7394 to travel to the MMRS bedrock grinding slicks and to resources in the Santa Rosa Mountains.

In agreement with Hogan et al. (2004:35-36), SWCA finds that site CA-RIV-7394 is a significant archaeological resource, and appears to be eligible for NRHP inclusion under Criterion D and CRHR listing under Criterion 4 due to its tremendous potential to continue to yield information important to prehistory and history of this region. As a place that possesses specific importance to the Native American community, the site may also be eligible for listing under NRHP Criterion A and CRHR Criterion 1. Despite modern and historic disturbance in the area, the site retains sufficient integrity of location, design (e.g., intrasite variability), setting, materials, workmanship (e.g., projectile points, ceramics), feeling, and association to be considered eligible. This significant site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

SWCA further finds that CA-RIV-7394 be recorded with the known 12 MMRS sites as a contributing element of a proposed archaeological district. Along with the 12 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected CA-RIV-7394, the 12 MMRS sites, and the Santa Rosa Mountains.

CA-RIV-7911 is a bedrock milling station [redacted] The site was fully documented in 2004 as part of this Class III inventory. There was no evidence of other archaeological material or a midden. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-7911 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-7912 is a bedrock milling slick at [redacted] The site was fully documented as in 2004 part of this Class III inventory. There was no evidence of other archaeological material or a midden. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement

network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-7912 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-7913 is a bedrock milling site at [redacted] The site was fully documented in 2004 as part of this Class III inventory. There was no evidence of other archaeological material or a midden. Along with National Register eligible site CA-RIV-7394, and the additional 11 known [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-7913 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-7914 is a bedrock milling site [redacted] The site was fully documented in 2005 as part of this Class III inventory. There was no evidence of other archaeological material or a midden. Along with National Register eligible site CA-RIV-7394, and the additional 11 known sites at [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-7914 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

CA-RIV-7960 consists of a small surface scatter of ceramic sherds that appears to be in secondary context and thus does not retain integrity. The site was fully documented in 2005 as part of this Class III inventory. SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-7961 consists of a small surface scatter of ceramic sherds that appears to be in secondary context and thus does not retain integrity. The site was fully documented in 2005 as part of this Class III inventory. SWCA finds that the site is not a unique archaeological resource, has no potential to yield any additional information, and is recommended not eligible for listing on the NRHP or CRHR. The site does not warrant further protection.

CA-RIV-7962 is an isolated stone cairn that exhibits desert varnish and is likely prehistoric, although there is no associated trail or cultural artifacts. Since rock cairns in this region are associated with burials and cremations, further investigation of this cairn as a potential burial or cremation feature is recommended. The site is in good condition, but its research potential is uncertain. Thus SWCA finds that the historical significance of site CA-RIV-7392 cannot be ascertained without further archaeological investigations. Additional research procedures would be necessary at this site in order to adequately evaluate its significance. Avoidance of this site is recommended.

CA-RIV-7963 is a bedrock milling slick at the base of the MMRS. The site was fully documented in 2006 as part of this Class III inventory. There was no evidence of other archaeological material or a midden.

Along with National Register eligible site CA-RIV-7394, and the additional 11 known [redacted] this site was part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although the site on its own does not meet the eligibility requirements for listing on the NRHP or CRHR, SWCA finds that CA-RIV-7963 warrants inclusion as a contributing element of a proposed archaeological district. The site thus warrants protection and avoidance is recommended. In the event of any undertaking near or within the site boundary, compliance with Section 106 of the NHPA would be necessary.

Four sites (**CA-RIV-1331, CA-RIV-1349, CA-RIV-5322, CA-RIV-5323),** [redacted] are on Federal lands administered by the BLM. Previously, the SHPO concurred with the BLM in determining that sites CA-RIV-1331 and CA-RIV-1349 were eligible for listing on the NRHP or CRHR. Along with National Register eligible site CA-RIV-7394, and the additional eight known sites at [redacted] these four sites were part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. A trail network connected the 12 MMRS sites, CA-RIV-7394, and the Santa Rosa Mountains. Although two of the sites remain unevaluated for individual listing on the NRHP or CRHR, SWCA finds that sites CA-RIV-1331, CA-RIV-1349, CA-RIV-5322, and CA-RIV-5323 warrant inclusion as contributing elements of a proposed archaeological district. The sites thus warrant protection and avoidance is recommended. In the event of any undertaking near or within the site boundaries, compliance with Section 106 of the NHPA would be necessary.

PROJECT EFFECTS ASSESSMENT

REGULATORY REQUIREMENTS

The BLM is charged with protecting and promoting the scientific knowledge and historical value of archaeological sites to the general public. As mandated by Section 106 of the NHPA, federal agencies must take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate adverse effects on such properties [36 CFR 800.1(a)]. Likewise, CEQA regulations state 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 Section 21084.1). “Substantial adverse change” means “demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired” [PRC Section 5020.1(q)].

If an archaeological site qualifies for listing on the NRHP or CRHR, the provisions of Section 106 and CEQA mandate that the lead agencies further determine whether the proposed undertaking will have an “effect” and “adverse effect” upon the site [36 CFR 800.4(d)(1)]. According to federal regulations, “*Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register” [36 CFR 800.16(i)]. The criteria of adverse effect are:

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. [36 CFR 800.5(a)(1)]

As summarized in Table 8, of the 21 archaeological sites evaluated as part of this inventory, the project has the potential to cause an adverse effect on three prehistoric sites that qualify as historic properties and historical resources; namely, CA-RIV-1331, CA-RIV-1349, and CA-RIV-7394. The significance of CA-RIV-7962 and two sites (CA-RIV-5322 and CA-RIV-5323) located on federal lands administered by the BLM has yet to be determined. Although eight [redacted] sites (CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) on their own do not meet the eligibility requirements for listing on the NRHP or CRHR, they are recommended as contributing elements of a proposed archaeological district.

Table 8. Current Status of Recorded Sites and Isolates

Site or Isolate Number	Brief description	In APE (yes/no)	Previous determination	Eligibility recommendations
CA-RIV-1331	Rock shelter, associated cultural material, and trails at base of Martinez Mountain Rock Slide	No (BLM ownership)	Eligible (1990, BLM with SHPO concurrence)	Eligible; also eligible as part of proposed district
CA-RIV-1349	Rock shelter and associated cultural material at base of Martinez Mountain Rock Slide	No (BLM ownership)	Eligible (1990, BLM with SHPO concurrence)	Eligible; also eligible as part of proposed district
CA-RIV-3872	Bedrock milling station at base of Martinez Mountain Rock Slide	No (conservation area)	Not eligible (1990, BLM with SHPO concurrence)	Eligible as part of proposed district
CA-RIV-3873	Bedrock milling slick at base of Martinez Mountain Rock Slide	No (conservation area)	Not eligible (1990, BLM with SHPO concurrence)	Eligible as part of proposed district
CA-RIV-3874	Bedrock milling slick and ceramic sherd scatter at base of Martinez Mountain Rock Slide	No (conservation area)	Not eligible (1990, BLM with SHPO concurrence)	Eligible as part of proposed district
CA-RIV-3875	Ceramic sherd scatter; appears secondary context	Yes	Not eligible (1990, BLM with SHPO concurrence)	Not eligible
CA-RIV-3876	Ceramic sherd scatter; appears secondary context	Yes	Not eligible (1990, BLM with SHPO concurrence)	Not eligible
CA-RIV-5319	Three pot drops	Yes	Not eligible (Chace 1994)	Not eligible
CA-RIV-5320	One pot drop	Yes	Not eligible (Chace 1994)	Not eligible
CA-RIV-5321	Rock alignment, probable hearth	No (conservation area)	Not eligible (Chace 1994)	Not eligible
CA-RIV-5322	Bedrock milling slick at base of Martinez Mountain Rock Slide	No (BLM ownership)	Not eligible (Chace 1994)	Unevaluated; eligible as part of proposed district
CA-RIV-5323	Bedrock milling slick at base of Martinez Mountain Rock Slide.	No (BLM ownership)	Not eligible (Chace 1994)	Unevaluated; eligible as part of proposed district
CA-RIV-7394	Multi-component Lake Cahuilla shoreline site	No (conservation area)	Eligible (Hogan et al. 2004)	Eligible

Table 8. Current Status of Recorded Sites and Isolates

Site or Isolate Number	Brief description	In APE (yes/no)	Previous determination	Eligibility recommendations
CA-RIV-7911	Bedrock milling station at base of Martinez Mountain Rock Slide	No (conservation area)		Eligible as part of proposed district
CA-RIV-7912	Bedrock milling slick at base of Martinez Mountain Rock Slide	No (conservation area)		Eligible as part of proposed district
CA-RIV-7913	Bedrock milling slicks at base of Martinez Mountain Rock Slide	No (conservation area)		Eligible as part of proposed district
CA-RIV-7914	Bedrock milling slicks at base of Martinez Mountain Rock Slide	No (conservation area)		Eligible as part of proposed district
CA-RIV-7960	Ceramic sherd scatter; appears secondary context	No (BOR ownership)		Not eligible
CA-RIV-7961	Ceramic sherd scatters; appears secondary context	No (BOR ownership)		Not eligible
CA-RIV-7962	Rock cairn	No (conservation area)		Unevaluated
CA-RIV-7963	Bedrock milling slick at base of Martinez Mountain Rock Slide	No (conservation area)		Eligible as part of proposed district
33-8919	Isolate – 1 ceramic sherd	Yes		Not eligible
33-8920	Isolate – 1 ceramic sherd	Yes		Not eligible
33-8921	Isolate – 1 ceramic sherd	Yes		Not eligible
33-8922	Isolate – 1 ceramic sherd	Yes		Not eligible
33-11347	Isolate – 1 ceramic sherd	Yes		Not eligible
33-11348	Isolate – 1 ceramic sherd	Yes		Not eligible
33-11349	Isolate – 1 ceramic sherd	Yes		Not eligible
33-11350	Isolate – 1 ceramic sherd	Yes		Not eligible
33-11351	Isolate – 1 quartz flake	Yes		Not eligible
33-11352	Isolate – 1 ceramic sherd	Yes		Not eligible
33-14852	Large metate and mano	Yes		Not eligible
33-14853	Flake scraper	No (conservation area)		Not eligible
33-14854	Isolate – 1 ceramic sherd	No (BOR ownership)		Not eligible
33-14855	Isolate – 3 ceramic sherds	No (conservation area)		Not eligible
33-14856	Isolate – 1 ceramic sherd	No (conservation area)		Not eligible
33-14857	Isolate - 4 lithic flakes	No (conservation area)		Not eligible
33-14858	Isolate - cruciform rock figure	Yes		Not eligible
33-14989	Isolate – 1 ceramic sherd	No (BLM ownership)		Not eligible

CONSIDERATIONS AND RECOMMENDATIONS

SITE OWNERSHIP

Due to the proximity of the intersection of the 12 sites [redacted] with BLM-administered federal lands and Travertine property, the ownership status of each site was unclear. To resolve this issue, the site coordinates were mapped using updated GPS data collected by both SWCA and Stantec Engineering (Figure 7). Stantec surveyors collected data points using a Trimble 4700 for seven [redacted]

[redacted] CA-RIV-1331, CA-RIV-1349, CA-RIV-3873, CA-RIV-3874, CA-RIV-5323, CA-RIV-7913, and CA-RIV-7963. This data was collected during the February 2006 visit. SWCA archaeologists recorded the GPS data for the remaining five [redacted] (CA-RIV-3872, CA-RIV-5322, CA-RIV-7911, CA-RIV-7912, and CA-RIV-7914) in February 2004 and March 2005, using a handheld Magellan Meridian.

The GPS data indicate that eight of the sites [redacted] are located on Travertine property: CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963. The remaining four sites are located on BLM-administered federal lands: CA-RIV-1331, CA-RIV-1349, CA-RIV-5322, and CA-RIV-5323. These results and the GPS data are listed on the new or updated site records for the 12 MMRS sites included in *Confidential Appendix E*.

Both SWCA and Stantec also recorded [redacted] NRHP and CRHR-eligible site CA-RIV-7394, using the total station system and the Trimble 4700, respectively. It is clear from this investigation that the boundaries of site CA-RIV-7394 extend into the proposed Travertine Corporation development property. The [redacted] into Travertine property. [redacted] The remainder of site CA-RIV-7394 is on BLM-administered public land.

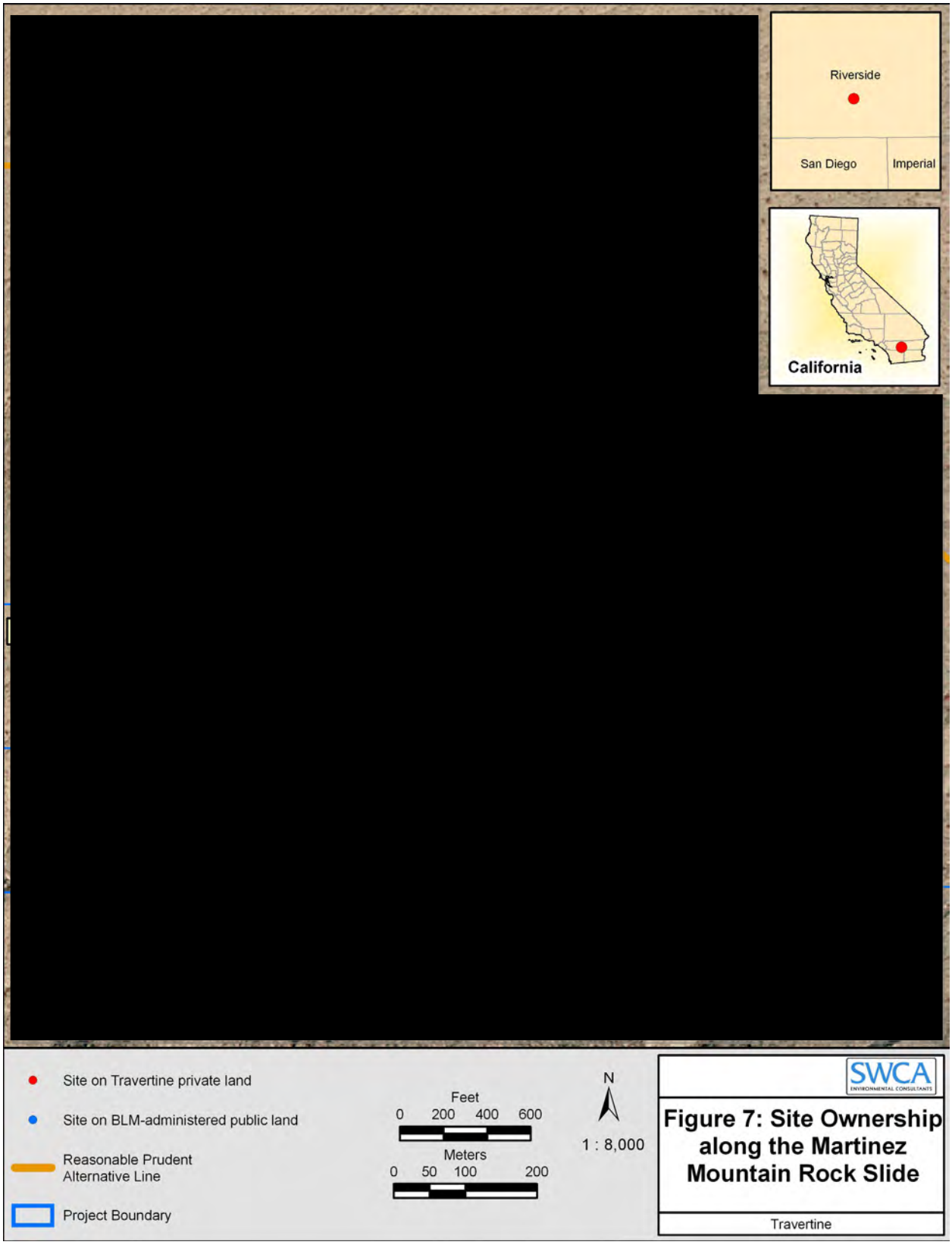
The recorded segment of a Native American trail that connects CA-RIV-7394 with CA-RIV-1331 is also located within Travertine Corporation property within [redacted] Although recorded as a part of site CA-RIV-1331, the extent of the trail was not noted in the original site record. This is clarified in the site record update included in *Confidential Appendix E.*

PLANNED CONSERVATION AREAS

Travertine is committed to the protection and preservation of cultural resources, in accordance with federal, state, and city legislation. To the greatest extent possible, Travertine will avoid disturbances to all such resources.

Travertine Corporation has established a planned conservation area, located [redacted] The 12 MMRS sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) and site CA-RIV-5321, all located [redacted] are included within the conservation area, and are thus outside the project area of potential effect (APE) (Table 8). In addition, site CA-RIV-7962, located [redacted] and is thus included within the conservation area, and outside the APE. Access to the conservation area from the Travertine development will be blocked by planned landscaping elements along the RPA Line.

In consultation with the BLM, we understand that Travertine Corporation will be placing a conservation easement over its entire acreage covered by site CA-RIV-7394, [redacted] In addition, a buffer zone is planned between the Travertine development and [redacted] of the site. This buffer zone will parallel [redacted] of CA-RIV-7394, [redacted] Thus, portions of the site on land owned by Travertine [redacted] will not be impacted by the project APE (Table 8). The buffer zone along the [redacted] will include landscaping elements that will form an access barrier, blocking pedestrian or off-road vehicle access between the site and the Travertine development.


Riverside
San Diego
Imperial
California
Site on Travertine private land
Site on BLM-administered public land
Reasonable Prudent Alternative Line
Project Boundary
Feet
0 200 400 600
Meters
0 50 100 200
N
1 : 8,000
SWCA
ENVIRONMENTAL CONSULTANTS
Figure 7: Site Ownership along the Martinez Mountain Rock Slide
Travertine

As noted above (Table 1), Travertine Corporation will be using only three of the five proposed access roads (Steve DeLateur, personal communication January 2006). One of the two now **not** planned for construction, Access Road 1, would have provided direct access [redacted] Members of the Torres-Martinez Reservation welcomed this decision.

The recorded segment of the Native American trail that connects CA-RIV-7394 with CA-RIV-1331 is located [redacted] This trail is thus included within the planned conservation area and outside the project APE.

RECOMMENDATIONS

Based on the results of the current investigation, prehistoric sites CA-RIV-1331, CA-RIV-1349, and CA-RIV-7394 qualify as historic properties and historical resources (Table 8). These three sites either have yielded or are likely to yield information important in prehistory or history, possess integrity, and meet the standards of Criterion D. Site CA-RIV-7394 may also meet the standards of Criterion A. We recommend the preservation of the distinctive materials, features, and special relationships within these sites and of CA-RIV-1331, CA-RIV-1349, and CA-RIV-7394 to each other as contributing elements of the proposed archaeological district.

Given the fragility of site CA-RIV-7394, comprised of surface artifacts and Native American trails, any disturbance would be extremely destructive. In addition to planned construction, the placement of access roads, material storage area, and equipment "bone yards" should not be located on the archaeological site, including the trails. Given the nature of the site and the fragile soil conditions on which it rests (relict beach sands, desert pavement, fingers of land made of sand and rock), the presence of any heavy equipment on the site would result in the complete destruction of that area. Of special sensitivity is the corridor through the southern portion of CA-RIV-7394. As shown in Figure 3, there are several loci in this area, three of which contain cremation features. Figure 6, at the point labeled "Locus 7," shows the proximity of one of these cremations to the Travertine property line. The most sensitive portion of the site, the village loci in the [redacted] must be protected.

The 12 prehistoric sites, located at the base of the MMRS (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963), are recommended as contributing elements of a proposed archaeological district. These 12 sites were part of a Late Prehistoric settlement system with a large resource procurement network, which continued to function into the Contact Period. The sites include rock shelters, milling features, ceramic scatters, and a trail network connecting to nearby NRHP-eligible site CA-RIV-7394 and the Santa Rosa Mountains, where local clays for the Patayan II Period (Late Prehistoric) ceramics were also collected. Seasonal resource exploitation included forays to Holocene Lake Cahuilla as well as the Santa Rosa Mountains. Excavation at the two rock shelters (CA-RIV-1331 and CA-RIV-1349) has already yielded information important to cultural development in the Coachella Valley region, and the SHPO previously concurred with the BLM that these two sites were eligible for listing on the NRHP and CRHR. Moreover, the Cahuilla people continue to use the trails that were recorded as part of CA-RIV-1331, and which connect to CA-RIV-7394, to travel to resources in the Santa Rosa Mountains.

An additional concern that needs to be addressed is likely secondary impact resulting from the Travertine project development. The BLM and private lands on which the NRHP and CRHR eligible sites are situated are currently the location of numerous recreational activities, including off-road driving with motorbikes and four-wheel drive trucks, hunting and target shooting, parties, and dumping trash. These activities take place on a weekly basis, involving potentially hundreds of people every year. Over the

decades these activities have been very destructive to the surface artifacts. When the Travertine development is completed, the residences and golf courses will bring to the area thousands of people on a sustained basis.

Two of the NRHP and CRHR eligible sites (CA-RIV-1331 and CA-RIV-7394) record segments of Native American trails. Recommended mitigation of the trails would include use of some feature of the development to block pedestrian or off-road vehicle access. One trail, which connects CA-RIV-7394 with CA-RIV-1331[redacted] This trail is thus included within the planned conservation area, with access blocked by planned landscaping elements along the RPA Line. The trail recorded as part of CA-RIV-7394 extends from the Travertine property [redacted] Access to this trail from the Travertine development will be blocked by the landscaping elements included within the buffer zone [redacted]

The preferred and recommended mitigation for each of these archaeological sites is avoidance. With the establishment of the planned conservation areas, buffer zone, and access barriers, none of the evaluated sites, including those [redacted] is within the Travertine project APE. The only known archaeological sites within the project APE are recommended not eligible for listing on the NRHP or CRHR. These include CA-RIV-3875, CA-RIV-3876, CA-RIV-5319, and CA-RIV-5320. The impact of the project to historic properties and historical resources, as well as to the contributing elements to the proposed archaeological district, is thus less than significant.

UNANTICIPATED DISCOVERIES

Construction Monitoring

Due to the archaeological sensitivity of the area, it is recommended that a qualified archaeologist monitor any ground-disturbing activity in native soils or sediments during the proposed development of the Travertine property. The monitoring archaeologist must be empowered to temporarily divert grading equipment in the event of a discovery and allow for sufficient time to evaluate and potentially remove the find.

This recommendation is consistent with the Mitigation, Monitoring and Reporting Program (MMRP) Checklist included as part of the Final Environmental Impact Report for the Travertine Specific Plan. Pursuant to the MMRP, approved in 1995 and renewed in 1999 with an indefinite extension:

> 3.10.1 A trained archeological monitor shall be present during the project's construction and grading operations to evaluate and coordinate the recovery of any archeological resources uncovered.
>
> 3.10.2 A trained archeological monitor shall be present during the project's construction and grading operations to ensure that any work or land disruptions in the off-site archeological areas (RIV-1334, RIV-1351, and RIV-5319) are avoided.

Since development of the MMRP, the checklist items warrant updating. First, on federal lands, a *qualified* archaeologist pursuant to the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (36 CFR Part 61) must conduct the cultural resources monitoring. Secondly, archaeological sites CA-RIV-1334 and CA-RIV-1351 are now incorporated as part of site CA-RIV-7394, a NRHP and CRHR eligible property.

As a result of these updates, we recommend amendment of the MMRP Checklist as follows:

> 3.10.1 A *qualified* archeological monitor shall be present during the project's construction and grading operations to evaluate and coordinate the recovery of any archeological resources uncovered.
>
> 3.10.2 A *qualified* archeological monitor shall be present during the project's construction and grading operations to ensure that any work or land disruptions in the off-site archeological areas are avoided. Off-site archaeological areas include: RIV-7394, which now incorporates RIV-1334 and RIV-1351; RIV-5319; and RIV- 7962.

Included in the appended Monitoring and Discovery Plan (Appendix D) is a seven-point section on archaeological monitoring, which includes the presence of qualified archaeologists during construction and grading operations. Implementation of a monitoring program during the construction phase of the project will assure that if cultural resources are discovered or if previously identified resources are impacted in an unanticipated manner, such resources receive mitigation to lessen the impact to less than significant.

Native American Monitor

SWCA recommends that a Native American monitor be present during any ground-disturbing activity in native soils or sediments during the proposed development of the Travertine property.

Worker Cultural Awareness Training

SWCA further recommends that prior to initiation of ground-disturbing activities, qualified archaeologists conduct a short awareness training session for all construction workers and supervisory personnel. The course would explain the importance of, and legal basis for, the protection of significant archaeological resources. Each worker would also learn the proper procedures to follow in the event cultural resources or human remains/burials are uncovered during construction activities, including work curtailment or redirection and to immediately contact their supervisor and the archaeological monitor. It is recommended that this worker education session include visuals of artifacts (prehistoric and historic) that might be found in the project vicinity, and that it take place on the construction site immediately prior to the start of construction. The approximately 30–45 minute training session may be conducted onsite by video, power point presentation, or related media.

Unanticipated Discovery Plan

Despite the record searches, field surveying, limited site testing, monitoring, or other actions taken to ensure that all cultural resources are located prior to construction, there still remains the possibility that undiscovered, buried cultural resources might be encountered during construction. These "inadvertent discoveries" can appear unexpectedly in construction trenches or in back dirt piles and, once discovered, they require special treatment.

It is the intention of the Monitoring and Discovery Plan, attached as Appendix D, to provide the necessary information to protect cultural resources that may be the result of an inadvertent discovery during construction activities for the proposed residential development. The plan provides for the identification, protection, and treatment of cultural resources discovered by archaeological monitors, Native American monitors, or construction workforce during project activities either inside or outside designated project

boundaries. The plan also recognizes the requirement for strict compliance with federal and state regulations and guidelines regarding the treatment of human remains, if any are discovered.

Curation of Recovered Cultural Materials

It is recommended that any cultural materials collected during monitoring or unanticipated discovery be curated at the Museum maintained by the Cabazon Band of Mission Indians in Indio, California. This curation facility does not meet the curatorial standards set forth at 36 CFR 79, pursuant to the NHPA, Section 101 (a)(7)(A). However, meeting NHPA standards is not necessary unless archaeological material is removed from public (here BLM or BOR) or Native American lands. Excavations on private property are not bound by this requirement.

Human Remains

Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e) (CEQA). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to insure the integrity of the immediate area must be taken. The Riverside County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC), who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 24 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 24 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

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ACRONYMS

APE	Area of Potential Effect
ARMR	Archaeological Resource Management Reports
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CRHR	California Register of Historical Resources
CRS	Cultural Resources Specialist
CVWD	Coachella Valley Water District
EIC	Eastern Information Center
GPS	Global Positioning System
MLD	Most Likely Descendent
MMRP	Mitigation, Monitoring and Reporting Program
MMRS	Martinez Mountain Rock Slide
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
RPA Line	Reasonable Prudent Alternative Line
SHPO	State Historic Preservation Officer
TU	Test Unit
USGS	United States Geologic Survey
UTM	Universal Transverse Mercator
WPLT	Western Pluvial Lakes Tradition

APPENDIX A:
BLM Cultural Use Permits and Fieldwork Authorization Forms

Appendix Redacted

Confidential
APPENDIX B:
Records Search Results

Appendix Redacted

Confidential
APPENDIX C:
Sacred Lands Search Results

Appendix Redacted

Confidential
APPENDIX D:
Monitoring and Discovery Plan

Appendix Redacted

Confidential
APPENDIX E:
Site Record Forms

Appendix Redacted

SUPPLEMENTAL CULTURAL RESOURCES TECHNICAL REPORT FOR THE TRAVERTINE DEVELOPMENT, CITY OF LA QUINTA, RIVERSIDE COUNTY, CALIFORNIA

December 2017

PREPARED FOR

Hofmann Land Development Company
3000 Oak Road, Suite 360
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SUPPLEMENTAL CULTURAL RESOURCES TECHNICAL REPORT FOR THE TRAVERTINE DEVELOPMENT, CITY OF LA QUINTA, RIVERSIDE COUNTY, CALIFORNIA

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SWCA Cultural Resources Report Number 17-669

December 13, 2017

Keywords: Travertine Development; CEQA; NEPA; Section 106; positive results;
CA-RIV-1331; CA-RIV-3872; CA-RIV-3873; CA-RIV-3874; CA-RIV-5321;
CA-RIV-5323; CA-RIV-7394; CA-RIV-7911; CA-RIV-7912; CA-RIV-7913;
City of La Quinta, Riverside County;
Township 6 South; Range 7 East; Section 4 and 5;
Township 7 South; Range 7 East; Section 4 and 5;
7.5-minute USGS topographic quadrangle, Martinez Mountain, California.

Archaeological and other heritage resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. Information regarding the location, character, or ownership of a cultural resource is exempt from the Freedom of Information Act pursuant to 54 USC 307103 (National Historic Preservation Act) and 16 USC Section 470(h) (Archaeological Resources Protections Act).

Sensitive site information has been redacted from this report.

MANAGEMENT SUMMARY

Purpose and Scope: SWCA Environmental Consultants (SWCA) was retained by Hofmann Land Development Company (Hofmann) to provide an updated cultural resources assessment in support of the proposed Travertine development project (Project) in the City of La Quinta (City), Riverside County, California. Hofmann proposes the development of the Travertine master planned resort community (Travertine) located on the southern edge of Coachella Valley at the base of the Santa Rosa Mountains. This study is intended to identify and describe cultural resources that could be affected by ground-disturbing activities associated with the Project. The proposed Project is located on an 877.5-acre area. This study is performed in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA). The proposed area of potential effects (APE) is located on 877.5 acres generally located between Avenue 60 to the north, Avenue 64 to the south, Coachella Valley Water District (CVWD) Dike No. 4 on the east, and Jefferson Street on the west. The vertical APE for the Project (depth of construction required for each task) is not planned to exceed 5-feet in grading depth.

The following report documents the methods and results of a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC), an updated records search at the California Historical Resources Information System (CHRIS), updated site visits and background research used to determine the presence of resources within the APE, and includes the report written by SWCA in 2006 (Sikes et al. 2006) for the same Project. In addition, the City, as lead agency, conducted tribal consultation in compliance with Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18). The results of that outreach is summarized here.

Regulatory Setting: The Project APE is located on private land and land managed by the Bureau of Reclamation (BOR); the BOR is the lead federal agency. Some archaeological sites located within the APE straddle private land and land managed by the Bureau of Land Management (BLM). The location of the APE on BOR and BLM land constitutes a federal nexus. The current study is conducted in compliance with Section 106 of the NHPA of 1966, as amended, and its implementing regulations, 36 Code of Federal Regulations (CFR) 800.

Additionally, the study was conducted in compliance with CEQA, Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of historical resources to determine their eligibility for the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). The NRHP is a federal listing of historic properties, and indicates which properties are to be protected from substantial impacts, as defined in NHPA. The CRHR is a listing of the state's historical resources, and indicates which properties are to be protected from substantial adverse change, as defined in CEQA, to the extent that is prudent and feasible.

Dates of Investigation: On August 3, 2017, the Eastern Information Center (EIC) CHRIS records search. The search included any previously recorded cultural resources and investigations within the APE and surrounding 0.5-mile (0.8-km) area. Concurrent with the CHRIS records search in June 2017, SWCA also reviewed property-specific historical and ethnographic context research to identify information relevant to the APE. SWCA, on behalf of the City of La Quinta, requested an SLF request from the NAHC on July 24, 2017. A response from the NAHC was received on July 26, 2017. The City of La Quinta contacted the NAHC to request a consultation list of tribes with traditional lands or cultural places within the project area in August 2017. A response from the NAHC was received on August 23, 2017.

Some of the sites that are inside the APE are also located on BLM land, therefore SWCA requested a Fieldwork Authorization permit on September 8, 2017. We received the signed version of this permit on September 18, 2017, permit number 66.66 17-17. SWCA archaeologists Erica Nicolay, M.A. and Lindsay Fontenot, B.A. conducted updated site recording of 13 previously recorded sites that are in or adjacent to

the current APE on September 19 through 20, 2017. The current report was written in October and November of 2017.

Findings: A total of 29 previously recorded sites are located within the APE. The NAHC's SLF search indicated that no Native American cultural resources are known within the immediate vicinity of the APE. The 2006 study for the project (Sikes et al. 2006) resulted in identification or updated recordation of 21 sites with the APE as defined at that time. Of these, 11 sites were recommended eligible for the NRHP either individually or as a portion of an archaeological district, one of the 11 sites eligible for the NRHP was also was recommended eligible for the CRHR, and seven sites were recommended ineligible for the NRHR. Three sites were not evaluated as part of the 2006 study. Travertine Development has been redesigned to avoid impacts to archaeological resources which have been recommended eligible. As part of the current field effort, SWCA revisited all sites recommended eligible to examine current conditions and confirm site boundaries. Due to the fact that the survey for the 2006 report 1) involved subsurface testing and 2) was performed recently, SWCA determined that a simple revisit to each of the eligible properties would be sufficient. Although these sites are located within or adjacent to the APE, Hofmann has re-designed the Travertine Development to avoid impacts to the sites that have been recommended eligible.

Investigation Constraints: Ground surface visibility in the APE was excellent and varied from 80 to 100 percent. However, the fieldwork was confined to examining the current condition and site boundaries of previously recorded sites that are located within the APE and are recommended eligible for listing to the NRHP either as individually or as part of a proposed archaeological district.

Recommendations: Because the Travertine Project has been redesigned to avoid impacts to historic properties (as defined in Section 106 of the NHPA) and historical resources (as defined in CEQA), the Project will result in no adverse effect under Section 106 of the NHPA and less than significant impact under CEQA. However, SWCA recommends continued avoidance of historic properties and historical resources. If cultural resources are inadvertently encountered during construction, work in the area should stop until an archaeologist is able to make a determination of significance. If human remains are encountered during construction activities, work at the site should stop until the Los Angeles County Coroner is able to make a determination of origin and deposition pursuant to the State of California Health and Safety Code Section 7050.5 and PRC Section 5097.98.

Disposition of Data: The final report and any subsequent related reports will be submitted to Hofmann Land Development Company and the EIC at University of California, Riverside. Research materials and the report are also on file at the SWCA's Pasadena Office.

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INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by Hofmann Land Development Company (Hofmann) to provide an updated cultural resources assessment in support of the proposed Travertine development project (Project) in the City of La Quinta (City), Riverside County, California (Figure 1). This cultural resources study is intended to characterize and describe cultural resources identified in the Project's Area of Potential Effects (APE) that could be affected by ground-disturbing activities associated with the proposed Project. Hofmann proposes the development of the Travertine master planned resort community (Travertine) located on the southern edge of Coachella Valley at the base of the Santa Rosa Mountains. The proposed Project is located on 877.5 acres generally located between Avenue 60 to the north, Avenue 64 to the south, Coachella Valley Water District (CVWD) Dike No. 4 on the east, and Jefferson Street on the west (Figures 2 and 3).

The Project APE is located on private land and lands managed by the Bureau of Reclamation (BOR). In addition, some archaeological sites within the Project area straddle private land and land owned by the Bureau of Land Management (BLM). The Project is an undertaking for the purposes of Section 106 of the NHPA because the APE is located on BOR and BLM land. Undertakings on federal lands are subject to compliance with the NHPA of 1966, as amended (16 United States Code [USC] 470 et seq.), and implementing regulations (36 CFR 800). This study was conducted pursuant to the National Environmental Policy Act of 1969; the Archaeological and Historic Preservation Act of 1974; and Section 106 of the NHPA, including 36 CFR 800. The NHPA requires the identification and evaluation of historic properties to determine their eligibility for the National Register of Historic Places (NRHP). The NRHP is a federal listing of historic properties, and indicates which properties are to be protected from substantial adverse effects, as defined in NHPA.

Additionally, the current study was conducted in compliance with California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of historical resources to determine their eligibility for the California Register of Historical Resources (CRHR). The CRHR is a listing of the state's historical resources, and indicates which properties are to be protected from substantial adverse change, as defined in CEQA, to the extent that is prudent and feasible.

The following report documents the methods and results of a Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC), an updated records search of the California Historical Resources Information System (CHRIS), updated site visits and background research used to determine the presence of resources within the APE, and includes the report written by SWCA in 2006 (Sikes et al. 2006; Appendix D). In addition, the City, as lead agency, conducted tribal consultation in compliance with Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18). The results of that outreach is summarized here.The purpose of this cultural resources study is to determine whether previously recorded or unrecorded cultural resources are located in the APE, and to aid Hofmann in avoiding impacts/effects to these resources during project implementation.

The format used in this report follows Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (California Office of Historic Preservation [OHP] 1990), and includes four appendices, two of which are the Confidential Appendix A Native American Coordination Documentation and Confidential Appendix B State of California Department of Parks and Recreation 523 Series Forms.

SWCA Cultural Resources Project Manager Mandi Martinez, M.A., Registered Professional Archaeologist (RPA) managed the project and authored the report. SWCA archaeologist Erica Nicolay, M.A., conducted background research and co-authored the report. SWCA archaeologists Erica Nicolay, M.A., and Lindsay Fontenot, B.A., conducted archaeological site updates. This report was reviewed for quality

assurance/quality control by Cultural Resources Principal Investigator Heather Gibson, Ph.D., RPA. SWCA Geographic Information Systems (GIS) specialist Peter Von der Porten created all the figures. Copies of the report are on-file with SWCA's Pasadena Office and the Eastern Information Center located at the University of California, Riverside (EIC).

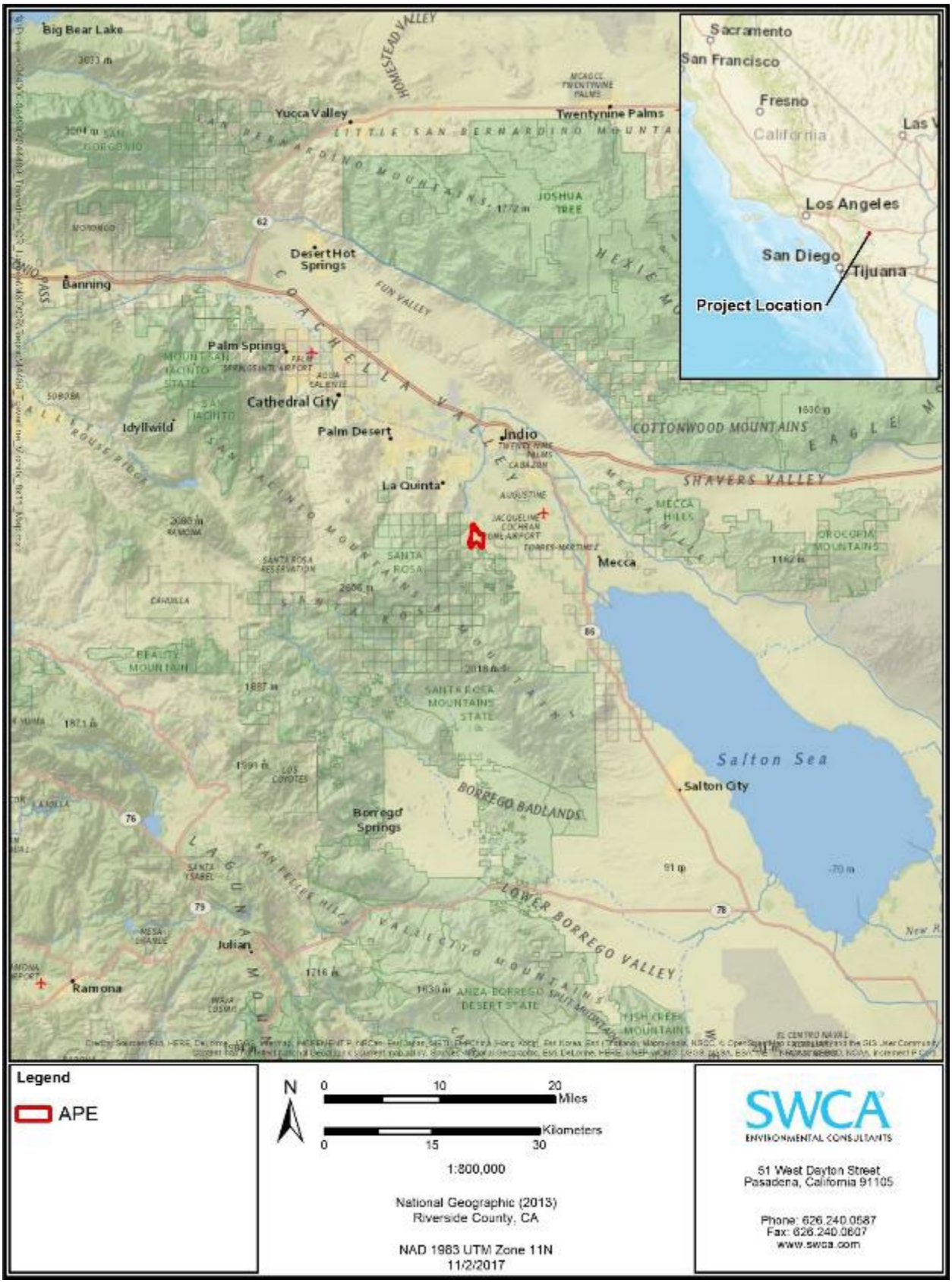

Figure 1. Project vicinity map.

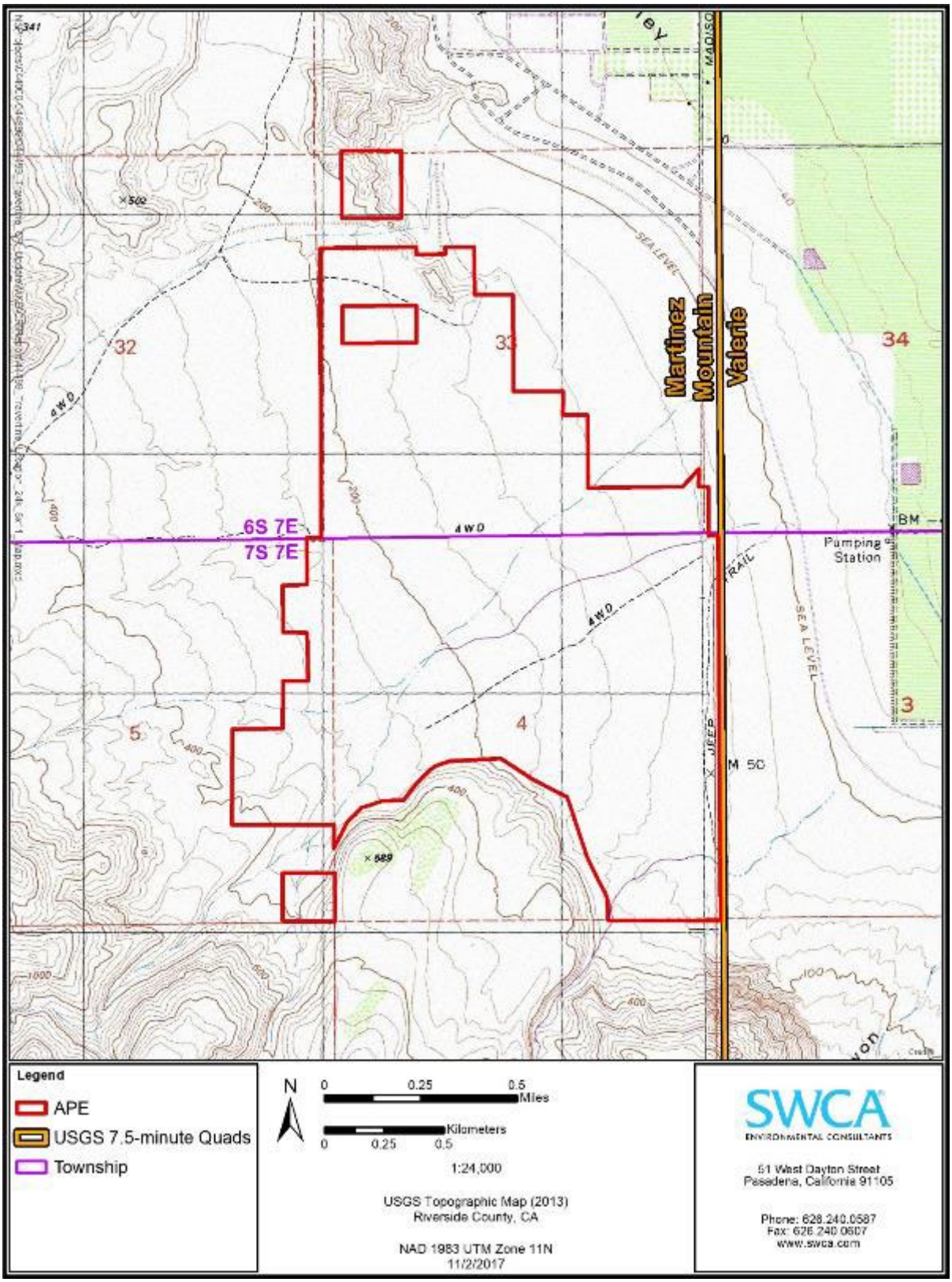

Figure 2. Project location mapped on Martinez Mountain, California USGS topographic map.

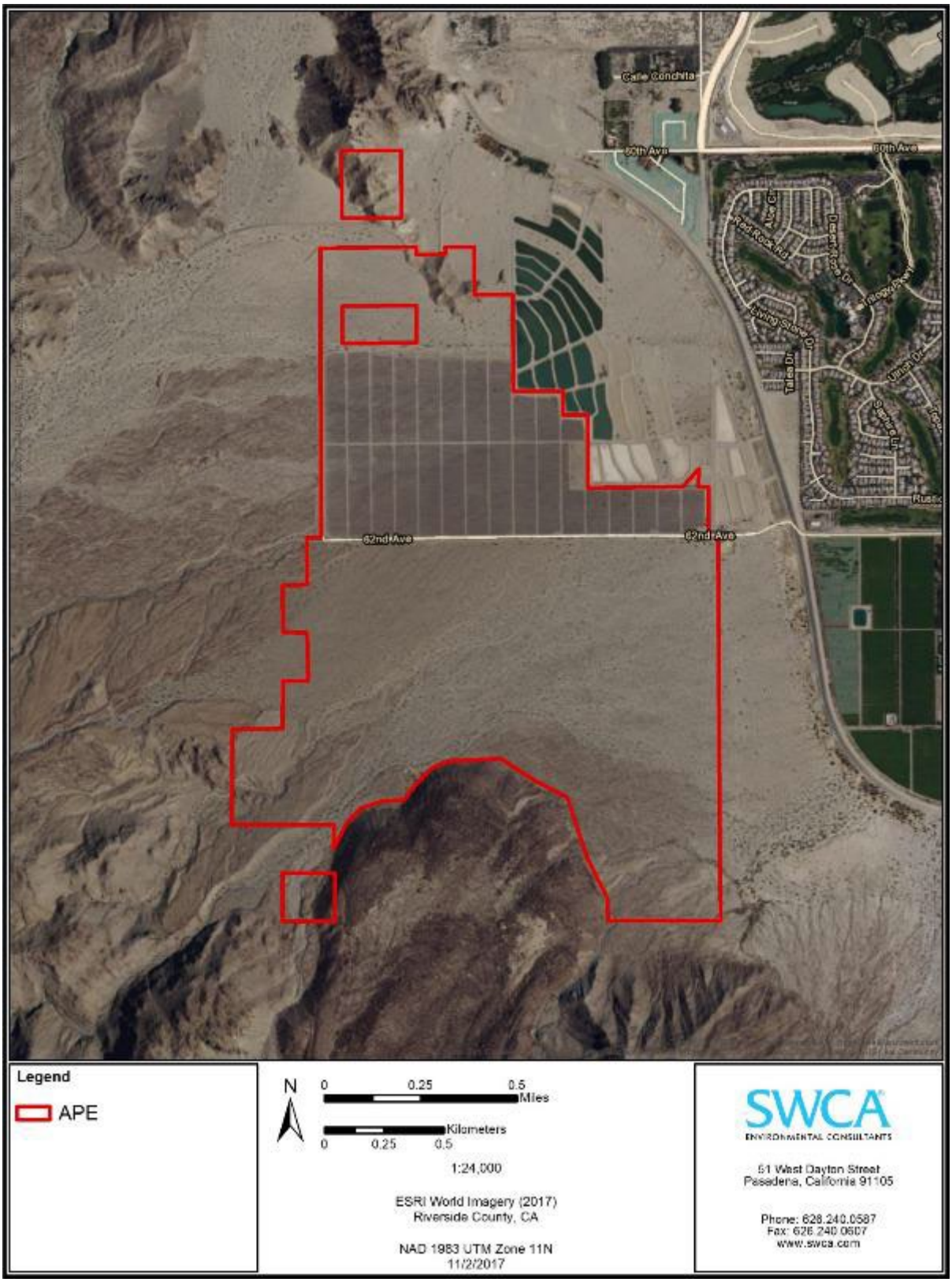

Figure 3. APE on aerial photograph.

REGULATORY FRAMEWORK

This section identifies federal and state legislation that govern the identification and treatment of cultural resources; and the analysis of project-related effects to these resources. The lead agency must consider these requirements when making decisions on projects that may affect cultural resources. The current project was undertaken in conformance with these regulations.

Federal Regulations

NATIONAL HISTORIC PRESERVATION ACT OF 1966

Enacted in 1966 and amended most recently in 2014, the NHPA (54 USC 300101 et seq.) instituted a multifaceted program, administered by the Secretary of the Interior, to encourage sound preservation policies of the nation's cultural resources at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also set up a mechanism to certify local governments to carry out the goals of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106

Section 106 of the NHPA (54 USC 306108) states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations in Title 36 of the CFR part 800, on such undertakings. The Section 106 process involves identification of significant historic resources within an "area of potential effect [APE]; determination if the undertaking will cause an adverse effect on historic resources; and resolution of those adverse effects through execution of a Memorandum of Agreement." In addition to the ACHP, interested members of the public, including individuals, organizations, and agencies (such as the California Office of Historic Preservation), are provided with opportunities to participate in the process.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR part 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be *significant* in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess *integrity* of location, design, setting, materials, workmanship, feeling, and association.

Significance

A property is eligible for the NRHP if it is *significant* under one or more of the following criteria:

- **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history.
- **Criterion B:** It is associated with the lives of persons who are significant in our past.
- **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- **Criterion D:** It has yielded, or may be likely to yield, information important in prehistory or history. Ordinarily cemeteries, birthplaces, or graves of historic figures; properties owned by

religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be 50 years of age to be considered for the NRHP unless it satisfies a standard of exceptional importance.

Integrity

In addition to meeting the significance criteria, a property must retain historic *integrity*, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

- **Location:** The place where the historic property was constructed or the place where the historic event occurred
- **Design:** The combination of elements that create the form, plan, space, structure, and style of a property
- **Setting:** The physical environment of a historic property
- **Materials:** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property
- **Workmanship:** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
- **Feeling:** A property's expression of the aesthetic or historic sense of a particular period of time; and/or
- **Association:** The direct link between an important historic event or person and a historic property

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 3001 et seq.) protects human remains, funerary objects, sacred objects, and items of cultural patrimony of indigenous peoples on federal lands. NAGPRA stipulates priorities for assigning ownership or control of such cultural items excavated or discovered on federal or tribal lands, or in the possession and control of an agency that has received federal funding.

NAGPRA also provides for the repatriation of human remains and associated items previously collected from federal lands and in the possession or control of a federal agency or federally funded repository. Implementing regulations are codified in 43 CFR Part 10. In addition to defining procedures for dealing with previously collected human remains and associated items, these regulations outline procedures for negotiating plans of action or comprehensive agreements for treatment of human remains and associated items encountered in intentional excavations, or inadvertent discoveries on federal or tribal lands.

State Regulations

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, is responsible for carrying out the duties described in the California PRC and maintaining the CHRISCRHR. The state-level regulatory framework also includes CEQA, which requires the identification and mitigation of substantial adverse impacts that may affect the significance of eligible historical and archaeological resources.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires a lead agency to analyze whether historic and/or archaeological resources may be adversely impacted by a proposed project. Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (PRC Section 21084.1). Answering this question is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

Historical Resources

According to CEQA guidelines section 15064.5, for the purposes of CEQA, historical resources are as follows:

> A resource listed in, or formally determined eligible … for listing in the CRHR (PRC 5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et seq.).
>
> A resource included in a local register of historical resources, as defined in Section PRC 5020.1(k), of the Public Resources Code or identified as significant in a historic resources survey meeting the requirements of Section PRC 5024.1(g).
>
> Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the CRHR (as defined in PRC Section 5024.1, Title 14 CCR Section 4852).

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet the NRHP criteria may still be eligible for listing in the CRHR.

According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude the lead agency from determining that the resource may be an historical resource (PRC Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (CEQA guidelines Section 15064.5[b]).

Substantial Adverse Change and Indirect Impacts to Historical Resources

State CEQA guidelines specify that a "substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA guidelines Section 15064.5). Material impairment occurs when a project alters in an adverse manner or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to CEQA guidelines section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

The following guides and requirements are of particular relevance to this study's analysis of indirect impacts to historic resources. Pursuant to CEQA guidelines (Section 15378), study of a project under CEQA requires consideration of "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." CEQA guidelines (section 15064(d)) further defines direct and indirect impacts as follows:

(1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.

(2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.

(3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

Archaeological Resources

In terms of archaeological resources, PRC Section 21083.2(g) defines a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a], [b], and [c]). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor an historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (CEQA guidelines section 15064.5[c][4]).

California State Senate Bill 18

Signed into law in 2004, SB 18 requires that cities and counties notify and consult with California Native American tribes about proposed local land use planning decisions for the purpose of protecting traditional tribal cultural sites. Cities and counties must provide general and specific plan amendment proposals to California Native American Tribes that have been identified by the NAHC as having traditional lands located within the City's boundaries. If requested by the Native American Tribes, the City must also conduct consultations with the tribes prior to adopting or amending their general and specific plans.

California State Assembly Bill 52

AB 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

Consultation with Native Americans

AB 52 formalizes the lead agency/tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Tribal Cultural Resources

Section 4 of AB 52 adds Sections 21074(a) and 21074(b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines *tribal cultural resources* as one of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   (A) Included or determined to be eligible for inclusion in the CRHR.
   (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2:** It is associated with the lives of persons important in our past.
- **Criterion 3:** It 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.
- **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

TREATMENT OF HUMAN REMAINS

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code (CHSC) Section 7050.5. More specifically, remains suspected to be Native American are treated under CEQA at CCR Section 15064.5; PRC Section 5097.98 illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CCR 15064.5 and PRC 5097.98).

PROJECT DESCRIPTION AND LOCATION

The proposed Project consists of low to medium density development of 1,200 residential units, a resort and spa facility with 100 rooms, a golf course, and public hiking trails in the southern portion of the City of La Quinta. The Project area is situated within the center of Riverside County, on the southern edge of the Coachella Valley at the base of the Santa Rosa Mountains and approximately 1.6 km (1 mile) south of the Lake Cahuilla reservoir (see Figure 1-3). The project design includes the development of 391 acres of residential properties, 72 acres of resort and golf club facilities, 380 acres devoted to a golf course, and open space.

As part of this project, Hofmann Land proposes to amend the Riverside County Specific Plan. The Specific Plan will guide the development of the site by setting forth a development plan, phasing plan, infrastructure plans, development standards, recreation plan, and design guidelines for architecture, landscaping, and other design elements.

Land Use Plan Description

As part of the Project, there are six major Land Use Plans:

1) Low Density Residential—includes single family detached housing and intermixed recreational areas, trails and roads;

2) Medium Density Residential—includes single family residential housing and intermixed recreation areas, trail, and roads;

3) Open Space/Golf and Resort/Golf Course—includes hotel, spa, restaurants, medical offices, parks, playfields, golf course, biking, hiking and equestrian trails, preschools and daycares, retail space, swimming pools, tennis facilities, and other features and amenities;

4) Open Space/Recreational—includes hiking, pedestrian, and equestrian trails, golf course, picnic grounds, parking lots, and other intermixed facilities;

5) Open Space/Restricted—includes areas with restricted access due to biological, archaeological and geological concerns (it will not be developed); in these areas, no construction, grubbing, grading, or other development will occur; and

6) Roadways—includes major road thoroughfares that extend through the development and connect the development to other parts of the City.

AREA OF POTENTIAL EFFECTS

The APE is currently developed as agricultural land. The APE is delineated to identify all historical, architectural, and archaeological resources listed in or eligible for listing to the NRHP or CRHR that may be directly or indirectly affected by the proposed project. The APE is plotted within Section 33 of Township 6 South, Range 7 East, and Sections 4 and 5 of Township 7 South, Range 7 East as depicted on the 7.5-

minute USGS topographic quadrangle for Martinez Mountain, California (see Figure 2). The proposed project is located on an 877.5-acre area generally located between Avenue 60 to the north, Avenue 64 to the south, CVWD Dike No. 4 on the east, and Jefferson Street on the west (see Figure 3).

Under Section 106 of the NHPA, assessment of indirect effects to historic properties, and under CEQA, indirect impacts to historical resources, is also required. Properties that are subject to indirect effects are also considered in the APE, called the Indirect APE. In this case, there are no historic properties (including built environment resources within a 0.25-mile radius) that could be subject to a visual or other indirect impacts or effect as a result of the Project. Therefore, there is no Indirect APE defined for this Project.

ENVIRONMENTAL SETTING

The APE is located within the City of La Quinta (City) in the southern extent of the Coachella Valley. The Coachella Valley is considered the westernmost extension of the Colorado Desert, located south of the Mojave Desert in Imperial, Riverside, and San Diego Counties. The Colorado Desert is bordered by the Peninsular Range and the Pacific Coastal Plain on the west and the Colorado River on the east. Coachella Valley is bordered on the north and east by Little San Bernardino, Cottonwood, and Orocopia Mountains, and bordered on the west by the Santa Rosa and San Jacinto Mountains. The Colorado Desert is an arid region, though what remains of Lake Cahuilla indicate episodic freshwater coverage of the desert during the Holocene. The closest water source, other than the reservoir at Lake Cahuilla, is the Salton Sea, located 21 km (13 miles) southeast of the APE.

The Coachella Valley climate is semi-arid with seasonal temperature extremes and wind patterns. Summer temperatures can reach 125 degrees Fahrenheit (52ºC), with frost in winter and snow in the early spring in the surrounding mountains. The mountains reach elevations of 6,000–10,000 feet (1,800–3,000 meters [m]), and create a rain shadow effect in the valley. Due to the rain shadow effect, very little precipitation reaches the eastern slopes or the valley floor. The annual average rainfall is 8.1 cm (3.2 inches) during the winter, with occasional summer tropical storms from the Gulf of Mexico that can result in flash floods. Runoff from the seasonally active streams within washes that empty into the valley quickly sinks into the alluvial fans at the mouths of the canyons.

The predominant plant community in the Coachella Valley and the APE is Creosote Bush Scrub. This plant community occurs on well-drained upland slopes and alluvial fans within the Colorado Desert, and is a dry, mixed evergreen deciduous habitat dominated by shrubs and sparse groundcover. The dominant species are the creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Other species within this community include saltbush (*Atriplex* spp.), brittlebush (*Encelia farinosa*), ocotillo (*Fouquieria splendens*), and prickly pear (*Opuntia* spp.) (Calflora.org 2015; Sawyer and Keeler-Wolf 2009).

Within Coachella Valley, there are a number of mammal, bird, reptile and amphibian species that reside in this harsh arid environment. Large mammal species include desert bighorn sheep (*Ovis canadensis nelsoni*), mountain lion (*Puma concolor*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*). Among the medium- to small-sized mammals, the species present include the desert kit fox (*Vulpes macrotis arsipus*), black-tailed jackrabbit (*Lepus californicus*), the desert cottontail rabbit (*Sylvilagus audubonii*), and Palm Springs ground squirrel (*Spermophilus tereticaudus chlorus*). Large-bodied birds that may occur include golden eagle (*Aquila chrysaetos*), turkey vulture (*Cathartes aura*), common raven (*Corvus corax*), and greater roadrunner (*Geococcyx californianus*). Numerous small bird species may be present, such as cactus wren (*Campylorhynchus brunneicapillus*) and Bell's sparrow (*Artemisiopiza belli*) (Center for Natural Lands Management 2014; Cornell Lab of Ornithology 2015). Many species of reptiles can occur including Western diamond-backed rattlesnake (*Crotalus atrox*), Great Basin whiptail (*Aspidoscelis tigris tigris*), desert tortoise (*Gopherus agassizii*), and Coachella fringe-toed lizard (*Uma inornata*).

CULTURAL SETTING

Prehistoric Overview

California's southeastern desert region has a long history of human occupation, with dates at the start of the early Holocene stretching back to ca. 10,000 years B.C. (Moratto 1984:96–97; Schaefer 1994:62; Sutton et al. 2007:233–237). This now-arid region includes the Colorado and Mojave Deserts, located east of the Sierra Nevada, Peninsular, and Transverse ranges. Prehistoric material culture in this region has been categorized according to periods or patterns that define technological, economic, social, and ideological elements. Within these periods, archaeologists have defined cultural patterns or complexes specific to prehistory within the desert region, including the current project APE.

The chronological framework developed for the Colorado Desert region is divided into three major periods: Paleoindian Period (ca. 10,000–6000 B.C.), Archaic Period (6000 B.C.–A.D. 870), and Late Prehistoric Period (A.D. 870–Historic Contact) (Table 1). The timescales referenced in the following discussion are presented either in radiocarbon years before present (B.P.) (where the "present" is 1950) or calendar dates (years B.C./A.D.), as well as geologic era. Some dates referenced in the text have been calibrated (cal) in order to convert raw radiocarbon years to calendrical dates. Use of the term "cultural complex" instead of "period" denotes a cultural manifestation rather than a temporal one.

Table 1. Chronology of Human Occupation of the Colorado Desert Region

Period	Sub-period	Cultural Complex	Date Range
Paleoindian Period / Western Pluvial Lakes Tradition		Lake Mojave and San Dieguito Complexes	10,000–6000 B.C.
Archaic	Early Archaic Period	Pinto Complex	6000–2000 B.C.
	Late Archaic Period	Gypsum Complex	2000 B.C.–A.D. 870
Late Prehistoric Period		Patayan I–III	A.D. 870–Historic Contact

Paleoindian period (ca. 10,000–6000 B.C. [12,000–8000 B.P.])

The precise timing and nature of human migration to North America continues to be a matter of considerable debate (e.g., Adovasio 2002; Dillehay 1997; Jablonski 2002; Swedlund and Anderson 1999), with the first occupation of the continent occurring at the end of the Pleistocene (e.g., Antevs 1955; Major 1988). The environment was cooler and moist, and megafauna such as mammoths, camels, and ground sloths were abundant and exploited by the earliest human migrants. The artifact assemblage typically associated with this period consists of Clovis and Folsom fluted projectile points, and other lanceolate, leaf-shaped, and stemmed points, including the Lake Mojave and Silver Lake projectile points. Fluted projectile points believed to be Clovis occur in several locales throughout California, including Pleistocene China and Thompson Lakes in the Mojave Desert, though lingering contextual questions prevent affirmation of Clovis technology (Rondeau et al. 2007:66).

Evidence of human occupation in California prior to 6000 B.C. (8,000 B.P.) is relatively sparse and scattered. The earliest accepted dates in southern California come from coastal sites in the Northern Channel Islands, specifically San Miguel and Santa Rosa Islands, which date between 11,500 B.P. and 8,600 B.P. (Erlandson 1991:105; Erlandson et al. 2007:57; Johnson et al. 2002). Evidence for human occupation of the Colorado Desert during the Pleistocene and early Holocene is sparse, though this scarcity could reflect adaptation of highly mobile groups to sparse resources as well as a potential result of unstable landforms during the Holocene. At the onset of the Holocene ca. 10,000 B.P., there was significant warming and drying in the Colorado Desert, and hunter-gatherer groups adapted their subsistence to the changing environment, with lakes and streams in the desert interior gradually drying up.

Archaic period (ca. 6000 B.C.–A.D. 870 [8000–1200 B.P.])

Around 6000 B.C., subsistence patterns shifted along with the changing environment, and greater emphasis was placed on plant resources and smaller animal species. Subsistence patterns became more diversified, focusing on gathering in the interior, and maritime resources in the coastal regions (Erlandson 1997:4). The Archaic period is characterized by this shift to gathering, which resulted in the increased number of ground stone implements in the artifact assemblage, including metates, manos, and mullers. Within the Colorado Desert, the Archaic period is divided into two sub-periods: the Early Archaic period or Pinto complex (6000–2000 B.C.) and the Late Archaic period or Gypsum complex (2000 B.C.–A.D. 870) (Warren 1984; also see Schaefer 1994; Schaefer and Laylander 2007).

During the Pinto complex, occupation sites within the Colorado Desert were most likely temporary, seasonal camps of small, highly mobile groups (Schaefer 1994:64; Warren 1984:414). As with the Paleoindian period, the archaeological record during this time period is sparse, and it has been suggested that populations withdrew to the margins of the desert and/or concentrated around the few oases still present (Warren 1984:413–414). There is greater evidence for the Pinto complex recovered from the Mojave Desert, with the artifact assemblages for this period characterized by Pinto series projectile points and shaped scrapers, as well as slab metates and manos. The presence of ground stone is the greatest difference from the Paleoindian period. Recent dates indicate that intensive plant processing began as early as ca. 7000 cal. B.C. within the Mojave Desert region, and faunal remains suggest an increase in the reliance on small animals and a decrease in the reliance in artiodactyl species such as pronghorn and deer (Sutton et al. 2007:238).

The Late Archaic/Gypsum period coincides with a period of moist climate called the Little Pluvial, with arid conditions returning in the latter half of the period. The archaeology of this period is characterized by caves sites with a wide range of diagnostic projectile points such as the Gypsum and Elko types, and split-twig figurines (Warren 1984:416–417). Mortars and pestles appear during this period in addition to the continued use of manos and metates. The bow and arrow was introduced at the end of this period, and there was an increase in trade goods such as shell ornaments from the Pacific Coast. Recent excavations within Coachella Valley indicate that occupation of the Colorado Desert was limited to temporary specialized camps around the Holocene Lake Cahuilla (Love and Dahdul 2002:81). These shoreline sites contain the remains of fish, shellfish, and waterfowl. Sites farther away from the shoreline suggest a permanent or semi-permanent occupation (CA-RIV-2936), with the artifact assemblage consisting of multiple occupation layers of hearths and milling implements, as well as Coso obsidian and shell beads from the Gulf of California. The obsidian and shell beads indicate exchange networks during this period. The overall reduction of size in projectile points indicates a shift from the atlatl and dart to the bow and arrow, the use of which continued into the Late Prehistoric period.

Late Prehistoric Period (A.D. 870–Historic Contact [1200 B.P.–Historic Contact])

The Late Prehistoric period within southern California is characterized by a shift in subsistence patterns to what is known among Native American groups during the Historic period. The changes in subsistence, foraging, and land use patterns most likely reflect cultural adaptations in response to shifts in environmental conditions and influences from outside Native American groups. The greatest indicator of this period is the presence of ceramics in the archaeological record beginning ca. A.D. 870 within the Colorado Desert (Love and Dahdul 2002; Schaefer and Laylander 2007:252). Brownware manufactured from upland clay sources and buffware from lowland sedimentary clays become increasingly common, with artifacts including clay figurines and pipes. Other indicators of the Late Prehistoric period are Cottonwood Triangular and Desert Side-Notched projectile points, a shift from extended inhumations to cremations, networks of trail systems with pot-drops and trailside shrines, and the introduction of small-scale agriculture.

The networks of trails are evidence of the importance of trade, travel, and exchange throughout the southern California deserts. Trail systems with the Colorado Desert are associated with trailside shrines, ceramic

pot-drops, and rock art (Schaefer 1994:66). Pot-drops near springs and tanks were essential for water access during dry seasons or long distance travel across the desert (Schaefer and Laylander 2007:254–255). Rock art complexes near water sources and pot-drops may indicate a spiritual value placed on these water sources, and mark some trails as representing routes between sacred places. The trail networks facilitated the trade of items such as shell beads and steatite from the Pacific Coast and Gulf of California, wonderstone from Rainbow Rock, and obsidian from Obsidian Butte at the southern end of the Salton Sea; these networks appear to have extended as far as the Great Basin and American Southwest.

The subsistence and settlement patterns in the Colorado Desert were influenced by episodes of infilling and recession of the Holocene Lake Cahuilla, with the final recession around A.D. 1580 (Buckles and Krantz 2005; Laylander 1995; Waters 1983). Native populations followed the receding shoreline and continued to exploit the dwindling resources. Near the end of the Late Prehistoric period and into the Historic period, permanent villages were established on the valley floor and were supported by large walk-in wells and extensive mesquite groves.

Ethnographic Overview

The APE is situated within the traditional territory of the Cahuilla (Bean 1978; Kroeber 1925). The Cahuilla dialects were part of the Cupan group of the Takix branch of the Uto-Aztecan language family, and the name "Cahuilla" is possibly derived from a native word meaning "master, boss" (Bean 1978; Kroeber 1925; Mithun 2001). *Ivi'lyu'atam* is the traditional term for the Cahuilla cultural identity. Archaeological evidence suggests that the Cahuilla migrated to southern California about 2,000 to 3,000 years ago, most likely from the southern Sierra Nevada ranges of east-central California (Moratto 1984:559). The Cahuilla traditional territory extended from the present day City of Riverside to the central portion of the Salton Sea in the Colorado Desert, and from the San Jacinto Valley to the San Bernardino Mountains.

Cahuilla socio-political identity had three main levels. The highest and most overarching level was that of the cultural nationality, encompassing all *Ivi'lyu'atam*. The next level was a division of two patrimonies, with each clan belonging to either the *tuktum* (Wildcats) or the *'istam* (Coyotes). Within these two overarching patrimonies is the third level of organization, which consists of a collection of individual patrimonial clans called *sibs* (Bean 1978:580). The separate lineages within the clans cooperated in many ways, including defense, subsistence activities, and religious ceremonies, and although most lineages had their own village and resource area, most of Cahuilla territory was considered communal property.

The *sibs'* individual territories within the Coachella Valley desert were formed around natural springs within and alluvial fans spreading out from mountain canyons to maximize the use of the natural resources. The villages were occupied year-round, with groups leaving for hunting, gathering, visiting other villages, or trade between villages. The relationships between individual patrilineal groups and different *sibs* were maintained through intermarriage and ceremonial reciprocity (Bean 1972). Each lineage had houses (*kish*), granaries for food storage, and *ramadas* (shades) for working and cooking. Villages also had sweat houses and song houses for non-religious music, and each village had a separate house for the lineage or clan leader. A separate ceremonial house (*kíš ?ámnawet*) was used for major religious ceremonies. Spacing between structures was often great, causing villages to extend over a mile in some cases.

Resource collection locations for food gathering, hunting, and/or mineral collection were the property of individual patrilineal lineages, and locations considered sacred could only be used by shamans or healers (Bean 1990:2). Some of the animal resources exploited by the Cahuilla include bighorn sheep, cottontail rabbits, jackrabbits, bobcats, desert foxes, and birds, including quail and doves. The Cahuilla also exploited more than 200 desert and mountain plant species. Some of the most important plants included acorns, honey mesquite, piñon nuts, prickly-pear cactus fruit and leaves, and yucca blossoms and stalks. The amole tuber was used for making soap and various tools, and the elderberry was used for medicine. In addition to making medicine, twine, baskets, ornamentation, and tools, numerous other plants were used in religious ceremonies (O'Neil 2001). There was some limited agriculture practiced by the Cahuilla prior to contact.

Bean, squash, and corn were grown using techniques likely adopted from Colorado River groups to the east (Bean 1978:578). Corn, pumpkins, and beans were observed being grown by the 1823–1824 Romero Expedition (Bean and Mason 1962:104). It is also likely that the Cahuilla practiced controlled burning, selective harvesting and pruning, replanting, seed distribution, and limited irrigation, activities that the native populations were believed to have used to improve the structure and productivity of the environment (Bean and Lawton 1993).

Cahuilla material culture consisted of a variety of tools to gather and collect food resources, including the bow and arrow, traps, nets, slings, and hunting blinds. Some of the food-processing tools used included portable and bedrock mortars, basket hopper mortars, pestles, manos, metates, bedrock grinding slicks, hammerstones, anvils, leaching baskets, bone saws, knives, and wooden drying racks. Food consumption was facilitated by woven baskets and carved wood and ceramic vessels. Pottery was introduced to the Cahuilla during the Late Prehistoric period through trade with Yuman-speaking groups across the Colorado River, and ceramic production using the paddle-and-anvil technique was adopted later. Typical ceramic vessels included jars, cooking vessels, ladles, *ollas* (large round pots with small necks), and pipes. Ollas were sometimes filled with foodstuffs, sealed, and cached in caves and rock shelters for later consumption (Bean 1978:578–579).

Spanish mission outposts were established at San Bernardino and San Jacinto by 1819, though interactions with Europeans was less intensive in Cahuilla territory than for the coastal native groups because the extreme environment made the area undesirable. By the 1820s, there was constant contact with the ranchos of Mission San Gabriel, and the Cahuilla frequently gained employment from the private rancheros or were relocated to the Mission San Luis Rey. The later Mexican ranchos also provided employment for the Cahuilla. The Bradshaw Trail was established in 1862 as the first major east-west stagecoach and freight line road through Coachella Valley. The influx of immigrants into the region also introduced a number of European diseases to the Cahuilla, with the worst small pox epidemic occurring in 1862–1863. By 1891, disease had reduced the Cahuilla population from an estimated 6,000–10,000 to only 1,160 (Bean 1978:583–584).

Between 1875 and 1891, the U.S. government established 10 reservations for the Cahuilla within their traditional territory: Agua Caliente, Augustine, Cabazon, Cahuilla, Los Coyotes, Morongo, Ramona, Santa Rosa, Soboba, and Torres-Martinez (Bean 1978:585). Four of these reservations are shared with other Native American groups, including the Chemehuevi, Cupeño, and Serrano. The Cahuilla on the Morongo Reservation established the Malki Museum in 1965, which today is a respected repository for artifacts and ethnographic knowledge. The Malki Museum also publishes books on Native American lifeways as well as the *Journal of California and Great Basin Anthropology.*

Historic Overview

The post-Contact history of California is divided into three specific periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). The Spanish period begins with the establishment of settlements in San Diego in 1769 by the Spanish, which included the construction of the first of 21 missions established between 1769 and 1823. The Mexican period begins with independence from Spain and goes up to the signing of the Treaty of Guadalupe Hidalgo in 1848. The end of the Mexican-American War began the American period with California becoming a territory of the United States. The following sections provide a brief overview of each period and are followed by a discussion of the regional history of Palm Springs.

Spanish Period (1769–1822)

Some of the first expeditions by Spanish explorers along the southern coast of California occurred between the mid-1500s and the mid-1700s. One explorer, Juan Rodríquez Cabríllo, was searching for the legendary Northwest Passage when he stopped in 1542 in what is known today as the San Diego Bay. Cabríllo

explored the shorelines of present Santa Catalina Island and the San Pedro and Santa Monica Bays, which were given their names by the next Spanish explorer, Sebastián Vizcaíno. Vizcaíno was a Spanish naval officer who mapped and recorded the coastlines of California and Oregon. Using the surveys conducted by Cabrillo and Vizcaíno, the Spanish crown laid claim to California (Bancroft 1886:96–99; Gumprecht 1999:35). For the next 200 years, very little inland exploration and colonization was done in Alta California by the Spanish. The beginning of the Spanish period in California is marked by the overland expedition of Captain Gaspar de Portolá in 1769. Portolá led a group of 64 soldiers, missionaries, Baja California Native Americans, and Mexican civilians to the San Diego area, where they established the Presidio of San Diego, a fortified military outpost and the first Spanish settlement in Alta California. In addition to the Presidio, Franciscan missionary Fr. Junípero Serra established the Mission San Diego de Alcalá at Presidio Hill, following the directive of the King of Spain that the Franciscan Order would direct religious and colonial matters in the American territories. The Mission San Diego de Alcalá was the first of 21 missions that would be established in Alta California between 1769 and 1823.

Captain Juan Bautista de Anza was the first to establish overland connections between California and Mexico. In 1774, he led a group of 34 padres, soldiers, and others across the Colorado River into the present day Imperial Valley. The route had been charted by Fr. Francisco Garcés in 1770, and Fr. Garcés led De Anza through present-day Imperial County along the Alamo River drainage (NPS 2004). The expedition continued northwest, traveling into present-day Imperial County through the Cahuilla Valley, following the Santa Rosa Mountains and continuing through Coyote Canyon and San Jacinto Valley, eventually ending up in Monterey Bay (Brown 1985). De Anza made another expedition along the same route in 1775 with a larger group and continued all the way to San Francisco Bay (Guerrero 2006).

After the expeditions of De Anza, several missions were established in the 1770s as far north as San Francisco. The 21 missions were situated parallel to the California coastline between present-day San Diego and Sonoma, with the coastline positions easy to defend and supply by ships. The missions were also placed near large populations of Native Americans, who were seen as potential converts. The roadway connecting the missions became known as "El Camino Real," with the current Interstate 5 and U.S. Highway 101 generally following the old road's footprint. Only three fortified posts were established in Alta California in addition to the Presidio of San Diego. The Presidio of Monterey was established in 1770, the Presidio of San Francisco in 1776, and the Presidio of Santa Barbara in 1782.

At the missions, the Franciscan padres oversaw all economic activities of Alta California and used the Native American neophytes as a source of labor, exercising strict control over them. Although the area known as Riverside County did not have any formal missions, the area maintained connection to the presidios and missions through the establishment of *estancias* (ranchos) and *asistencias* (sub-missions with a chapel but no resident priest). A series of mission *estancias* and *asistencias* was established in Riverside County, including Santa Margarita, Las Flores, San Mateo, San Juan, Pala, San Marcos, Agua Hedionda, Buena Vista, and, the northernmost, San Jacinto (Greenwood et al. 1993:10; Tetra Tech 1999:7).

Mexican Period (1822–1848)

The threat of foreign invasion, political dissatisfaction, demand for land by civilian settlers and retiring soldiers, and unrest among Native American populations kept growth in Alta California to a minimum, with the establishment of only three pueblos during the Spanish Period. After years of intermittent rebellion and warfare, New Spain, encompassing what is now Mexico and California, won independence from Spain in 1821. In 1822, the Mexican government in California ended isolationist policies designed to protect the Spanish monopoly on trade and opened all California ports to foreign merchants (Dallas 1955:14).

During the Mexican Period, extensive land grants were given in the interior intended to lure populations away from the coastal areas. The California missions were in decline, and following the Secularization Act of 1833, the Mexican government privatized most of the Franciscan lands, including those of the missions. By 1836, the missions were reduced to parish churches, and the vast mission lands and livestock holdings

were redistributed by the Mexican government through land grants to private, non-Native American ranchers (Langum 1987:15–18). The Native Americans expelled from the missions were used by the Mexican ranchers as cheap labor, and in some instances, the Native Americans were also expelled from their grant holdings. These large ranchos became important economic and social centers, with some 20 ranchos covering nearly 500,000 acres, including Ranchos El Rincón, Jurupa, La Laguna, La Sierra, Pauba, San Jacinto, Santa Rosa, Temecula, Cucamonga, Santa Ana, and San Bernardino. Cattle hides became a primary California export to other areas in the United States and Mexico.

The non-Native population increased in California during the Mexican Period due to the large influx of explorers, trappers, and ranchers. The rising population had the unfortunate effect of introducing and increasing outbreaks of foreign diseases among the Native American populations. Large numbers in the Central Valley died from disease between 1830 and 1833, eliminating entire tribes along the American, Merced, Tuolumne, and Yuba Rivers. A second epidemic in 1837 further decimated the indigenous populations (Cook 1955).

American Period (1848–present)

War broke out between Mexico and the United States in 1846, bringing U.S. Colonel Stephen Watts Kearny and his army to present-day Imperial Valley from Kansas. The American Period begins with the end of the Mexican-American War in February 1848 with the signing of the Treaty of Guadalupe Hidalgo. Horticulture and livestock continued to dominate the southern California economy even through the first decade of the Gold Rush, which began in January 1848. The Compromise of 1850 officially designated California as a U.S. state, followed by the designation and organization of San Diego County in 1852, followed by San Bernardino County in 1853 (Greenwood et al.1993:14). San Diego County was later divided to create Riverside County (along with parts of Los Angeles and San Bernardino Counties) in 1893 and Imperial County in 1907.

During the California Gold Rush, thousands of people traveled across the Colorado River into California and through the Colorado Desert to San José Valley. With the influx of these gold seekers, cattle were no longer used primarily for hides, and during the cattle boom of the 1850s, rancho cowboys (*vaqueros*) drove large herds from southern California north to feed the mining and commercial boom in northern California. The influx of cattle driven from neighboring states and severe droughts ended the cattle boom in southern California.

American politics and the need for a mild winter route to California resulted in the U.S. Gadsden Purchase of 1854, securing additional lands from Mexico. Surveys in 1857 established the current international border between Mexico and the United States, stretching from New Mexico to California (Walker and Bufkin 1986). Wagon roads and railroads were constructed across the Colorado and Mojave Deserts between the 1850s and the 1870s, which connected the coastal regions of California with the rest of the United States. Trains transported mail, prospectors, miners, entrepreneurs, merchants, immigrants, laborers, muleteers, settlers, and military personnel, as well as civilian and military supplies, livestock, produce, timber, and minerals to and from California. With the increased use of the automobile at the turn of the twentieth century, permanent roadways were constructed across desert trails and wagon roads.

With the onset of the American Civil War as well as other factors, many of the large ranchos changed ownerships frequently and were often subdivided into smaller holdings. The 1862/1863 and 1863/1864 winters produced almost no rainfall in southern California, resulting in the death of thousands of livestock animals. The droughts and a changing economy ruined many of the rancho families, and resulted in the rise of sheep in California grazing activities (Beattie and Beattie 1939; Brown 1985; Ingersoll 1904).

The History of La Quinta

Historic settlement of the Coachella Valley began in the 1870s with the establishment of railroad stations along the Southern Pacific Railroad. By 1883, there were stations at Banning, Beaumont, Cabezon, Whitewater (later Palm Springs Station), Seven Palms, and Indio. Settlement spread further after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws. The exploitation of underground water sources allowed farming to dominate the economy in the valley, but it was not until the completion of the Coachella Canal in 1948–1949 that there was an adequate and reliable water source. The date palm was first introduced around the turn of the twentieth century, and came to dominate agriculture in the area. Starting in the 1920s, the resort industry began to spread through Coachella Valley, bringing resort hotels, equestrian camps, and country clubs, and eventually making the area southern California's leading winter retreat location (Hruby et al. 2006).

The origin of the City of La Quinta is attributed largely to vacationers. The City's resort industry was born in the 1920s when Walter H. Morgan opened the La Quinta Resort and Club, originally designed by renowned architect Gordon B. Kauffman. The resort quickly became popular among Hollywood elite who considered the place a desert oasis. Notably, the first golf course in the Coachella Valley was built at the Resort. In 1982, when the City officially became incorporated, residents decided to adopt the name of the premier resort that put them on the map: La Quinta. Though the area still is known for its resorts and golf courses, it boasts a fairly large permanent population of just over 40,000 people as of 2015.

METHODS

SWCA reviewed the previous survey work and associated reports completed for the project, performed an updated records search at the EIC, assisted the City with AB 52 and SB 18 consultation, and conducted additional archaeological fieldwork. The following sections discuss the methods used for these efforts.

Prior Work by SWCA for the Travertine Development Project

In 2006 SWCA completed a cultural resources investigation for the Project that included 941 acres of archaeological resources investigations. This included a records search, field survey of portions of the 941 acres, testing of site CA-RIV-7394, and the completion of a technical report. That report resulted in the identification or updated recordation of 21 sites in or abutting the previous project's APE (Table 1). Of these 21 sites, 11 were recommended eligible for listing to the NRHP either by themselves or as part of a proposed archaeological district. Because of the identification of so many resources, Hofmann, as good land stewards, changed the footprint of the Travertine Project to avoid impacts to any cultural resources. As part of this alteration, Hofmann reduced the overall APE and made plans to preserve portions of the APE along the southern, western, and eastern boundaries to Open Space/Restricted status. These alterations were made to restrict development due to biological, geological, and cultural resources concerns. In these areas, no construction, grubbing, grading, or other development will occur.

Records Search

On June 19, 2017, an SWCA Cultural Resource Specialist requested an updated records search of the CHRIS to be conducted at the EIC for previous cultural resources studies and previously recorded cultural resources of the APE and within a 0.5-mile radius of the project APE. The CHRIS search also included a review of the NRHP the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, the City of Los Angeles Historic-Cultural Monuments (HCM) list, and the California State Historic Resources Inventory. The results of the record search were received on August 3, 2017, and are described below.

Native American Contact Program

On behalf of the City, SWCA contacted the NAHC requesting an SLF search as well as contact information for Native American groups or individuals that may have concerns about cultural resources in the project APE. SWCA prepared and e-mailed a request letter to the NAHC in August 2017. The NAHC responded to the request in a letter dated August 23, 2017, that was received via e-mail. The results of the SLF search were given to the City who initiated an SB 18- and AB 52-compliant Native American consultation program. The purpose was to inform interested parties of the proposed project and to address any concerns regarding tribal cultural places or tribal cultural resources that might be affected by the project, as required by SB 18, AB 52 and 36 CFR 800.2(A) of Section 106 of the NHPA. The purpose of this program was to determine whether TCPs exist in the project APE. The City prepared letters addressed to each group or individual provided on the contact list by the NAHC and those letters were mailed on August 28, 2017. The results of the Native American contact program are described below.

Field Survey

Because the prior work by SWCA in 2006 was determined adequate for identification of resources, resurvey of the entire APE was determined not to be necessary. In 2006, there was testing and excavation completed. This research into the area was thorough, recent, and performed for the same project. Therefore fieldwork for this Project focused on updating the existing conditions, boundaries, and documentation of sites within in or adjacent to the APE. Additionally because global positioning system (GPS) units have better accuracy now than in 2006, SWCA also verified the location of sites within 10 meters of the new Project boundary.

SWCA Archaeologists Erica Nicolay M.A., and Lindsay Fontenot, B.A., revisited 13 sites located within the APE that have either been determined NRHP eligible or have not been evaluated. A handheld submeter-accurate GPS unit was used to identify the location of previously recorded sites. The current site condition was compared to the site records to confirm site boundaries and descriptions and make any necessary updates to conditions described in 2006. The site area and cultural constituents were photographed using a digital camera. Updated site records were completed on California Department of Parks and Recreation (DPR) forms and submitted to the EIC. All field notes, photographs, and records related to the current study are on file at the SWCA Pasadena, California office.

RESULTS

Records Search

Previously Conducted Cultural Resource Studies

Results of the CHRIS records search at the EIC indicate that 33 previous cultural resource studies have been conducted within the APE and a 0.5-mile radius of the APE; 12 of those included a portion of the APE. The 2006 cultural resource study, conducted by SWCA, covered a total of 941 acres, including the entirety of the current APE. At that time, more resources intersected the APE than now (in 2017) because the project design was altered after the 2006 study. Of the 21 sites that previously intersected the original APE, only 12 resources currently intersect the altered APE. Details pertaining to these investigations are presented in Table 2. Figure 4 shows the extent of the previously conducted cultural resource studies within the Project Area and the radius.

Table 2. Previously Conducted Cultural Resource Studies within the Project APE and the 0.5-mile radius around the APE

EIC Report Number	Title of Study	Author: Affiliation	Year	Proximity to APE
RI-00134	*Archaeological Survey of Martinez Canyon*	Chaloupka, Chris : Department of Archaeology, U.C. Riverside	1972	Overview study, not mapped
RI-00135	*Description and Analysis of Some 1170 Martinez Canyon Sherds*	King, Thomas J.	1974	Overview study, not mapped
RI-00956	*Environmental Impact Evaluation: An Archaeological Assessment of the Proposed Wastewater Treatment Plant in Section 34, T6S, R7E, SBBM in the Coachella Valley, Riverside County, California*	Wilke, Philip J.: Archaeological Research Unit, U.C. Riverside	1980	Outside (within 0.5 mile)
RI-01211	*A Cultural Resources Overview of the Colorado Desert Planning Units*	Till Warren, Elizabeth von and Robert H. Crabtree, Claude N. Warren, Martha Knack, and Richard McCarty: Institute for American Research	1980	Overview study, not mapped
RI-02277	*Interim Cultural Resources Report Archaeological Testing and Mitigation Shea Homes Portion of the Coral Mountain Project Near La Quinta Riverside County, California*	Love, Bruce, Harry Quinn, Michael Hogan, and Mariam Dahdul: CRM Tech	2000	Outside (within 0.5 mile)
RI-02760	*Environmental Impact Evaluation: An Archaeological Assessment of 1280 Acres of Land Located South of Indio in Central Riverside County, California*	Arkush, Brook: Archaeological Research Unit, U.C. Riverside	1990	Within
RI-03245	*Cultural Resources Sensitivity Overview For The Coachella Valley Enterprise Zone*	Van Horn, David M., Laurie S. White, and Robert S. White: Archaeological Associates, LTD.	1990	Overview study, not mapped
RI-03406	*An Archaeological Assessment of Comprehensive General Plan Amendment 347*	Keller, Jean A.: N/A	1991	Outside (within 0.5 mile)
RI-03489	*Cultural Resources: La Quinta General Plan EIR*	Love, Bruce, Joan S. Schneider, Gwyn Alcock, Dawn Reid, Kevin Hallaran, and Tom Tang: Archaeological Research Unit, U.C. Riverside	1992	Overview study, not mapped
RI-03829	*A Cultural Resources Survey For The Green Specific Plan, City of La Quinta*	Chace, Paul: The Keith Companies, Costa Mesa, CA	1994	Outside (within 0.5 mile)
RI-03830	*A Cultural Resources Survey For The Travertine Point Project, City of La Quinta*	Chace, Paul: The Keith Companies, Costa Mesa, CA	1994	Within
RI-03840	*Identification And Evaluation of Historic Properties: Coachella Valley Water District Groundwater Recharge Facility Project. Riverside County, California*	Love, Bruce: CRM Tech	1995	Outside (within 0.5 mile)
RI-03841	*Cultural Resources Report, Class I Reconnaissance: Coachella Valley Water District Groundwater Recharge Facility Project. Riverside County, California*	Love, Bruce: CRM Tech	1995	Outside (within 0.5 mile)

EIC Report Number	Title of Study	Author: Affiliation	Year	Proximity to APE
RI-03842	*Addendum Identification And Evaluation of Historic Properties: Coachella Valley Water District Groundwater Recharge Facility Project. Riverside County, California*	Love, Bruce: CRM Tech	1995	Outside (within 0.5 mile)
RI-03844	*Archaeological Monitoring Report: Groundwater Recharge Basin Expansion Project, Coachella Valley Water District, Riverside County, California*	Love, Bruce: CRM Tech	1998	Outside (within 0.5 mile)
RI-04003	*A Cultural Resources Survey For the U. S. Bureau of Land Management Segment of the Jefferson Street Alignment Project, City of La Quinta*	Chace, Paul an Charles E. Reeves: The Keith Companies, Costa Mesa, CA	1996	Within
RI-04084	*Cultural Resources Report: Coral Mountain Project. Coachella Valley, Riverside County, California*	Love, Bruce and Bai "Tom" Tang: CRM Tech	1998	Outside (within 0.5 mile)
RI-04469	*A Cultural Resources Survey For the U.S. Bureau of Reclamation of the Madison Street Alignment Project, City of La Quinta*	Chace, Paul G.: Paul G. Chace & Associates, Escondido, CA	2001	Outside (within 0.5 mile)
RI-04624	*A Class III Cultural Resources Inventory : 123-Acre Coral Mountain Regional Park City of La Quinta, County of Riverside, California*	Smith, David M.: The Keith Companies, Costa Mesa, CA	2003	Within
RI-05773	*Final Report on Archaeological Testing and Mitigation: The Trilogy at La Quinta Coral Mountain Project, Near the City of La Quinta. Riverside County, California*	Love, Bruce, Michael Hogan, Harry Quinn, Richard Norwood, and Mariam Dahdul: CRM Tech, Riverside CA	2002	Outside (within 0.5 mile)
RI-05877	*Cultural Resources Technical Report, City of Palm Desert General Plan*	Love, Bruce, Bai Tang, and Mariam Hogan: CRM Tech, Riverside CA	2000	Overview study, not mapped
RI-05990	*Historical/Archaeological Resources Survey Report, Coral Mountain Expansion, City of La Quinta, Riverside County, CA*	Tang, Bai, Michael Hogan, Mariam Dahdul, Casey Tibbet, Daniel Ballester, and Terri Jacquimain: CRM Tech, Riverside CA	2003	Outside (within 0.5 mile)
RI-06071	*Final Cultural Resources Inventory for the Coachella Valley Management Plan, Riverside County, CA*	Jay K. Sander, Roger D. Mason, Evelyn N. Chandler, and Cary D. Cotterman: CHAMBERS GROUP, INC., Redlands, CA	2003	Within
RI-06209	*Identification and Evaluation of Historic Properties, Coral Mountain Reservoir Project, In the Coachella Valley, California*	Hogan, Michael, Bai "Tom" Tang, Mariam Dahdul, Laura Hensley, and Daniel Ballester: CRM Tech, Riverside CA	2004	Within
RI-06316	*Historical/Archaeological Resources Survey Report, Tentative Tract Map NO. 3248, City of La Quinta, Riverside County, CA*	Tang, Bai, Michael Hogan, and Matthew Wetherbee: CRM Tech, Riverside CA	2004	Outside (within 0.5 mile)
RI-06409	*Archaeological Monitoring Report, Tentative Tract Nos. 30842, 30842-1, Aan 30842-2, Skyview Ridge Project, City of Murrieta, Riverside County, CA*	Hogan, Michael, Bai Tang and Matthew Wetherbee: CRM Tech, Riverside CA	2005	Unknown
RI-06412	*Archaeological Testing and Evaluation Report, Site CA-RIV-7205/H (33-12956), APN 766-110-016, City of La Quinta, Riverside County, CA*	Hogan, Michael: CRM Tech, Riverside CA	2005	Outside (within 0.5 mile)

EIC Report Number	Title of Study	Author: Affiliation	Year	Proximity to APE
RI-06942	*Class III Cultural Resources Inventory and Evaluation, Including Limited Subsurface Testing of Archaeological Site CA-RIV-7394, for the Proposed Travertine Development Project, City of La Quinta, Riverside County, California*	Sikes, Nancy E. and Stephen O'Neil: SWCA Environmental Consultants, Mission Viejo, CA	2006	Within
RI-07100	*Letter Report: Supplemental Report on Cultural Resources Survey along Access Road 3 (Madison Street) and Access Road 4 (Jefferson Street) for the Proposed Travertine Development Project, City of La Quinta, Riverside County, California*	Sikes, Nancy E.: SWCA Environmental Consultants, Sacramento, CA	2007	Within
RI-07260	*Letter Report: Phase I Report on Vineyard Acreage within Section 33 of the Proposed Travertine Development Project, City of La Quinta, Riverside County, California*	Sikes, Nancy E.: SWCA Environmental Consultants, Sacramento, CA	2007	Within
RI-08105	*Summary of Findings, Citywide Historic Resources Survey Update, City of La Quinta, Riverside County, California*	Tang, Bai "Tom" and Michael Hogan: CRM Tech, Riverside, California	2006	Within
RI-08572	*Emergency Data Recovery Investigations at CA-RIV-7398 For the Dike 4 Groundwater Recharge Facilities Project in the Coachella Valley, California*	Mirro, Vanessa and Dennis McDougall: Applied EarthWorks Inc.	2010	Within
RI-09768	*Cultural Resource Element City of La Quinta General Plan*	Love, Bruce and Bai "Tom" Tang, CRM Tech	2000	Within

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Figure 4. Previously conducted cultural resource studies within the Project APE and the 0.5-mile radius of the APE.

Previously Recorded Cultural Resources

A total of 86 cultural resources have been previously documented within the APE and a 0.5-mile radius of the APE. Twenty-nine of these were located within the APE. Of the 29 resources that intersect the APE, 13 are prehistoric sites including: four ceramic scatters, one habitation site, seven bedrock milling sites, one Native American trail, and one hearth. One of the 29 resources within the APE is a historic site consisting of a single family property. Fifteen of the 29 resources within the APE are prehistoric isolates including: nine ceramic fragments, one metate and mano, one Anodonta shell fragment, one quartz flake, one lithic scraper, one isolated lithic scatter, and one isolated rock scatter. Of the 29 resources within the APE, the 15 isolates are ineligible for the NRHP and CRHR and of the 14 previously recorded sites, nine have been previously recommended eligible for the NRHP either individually or as a contributing element of an archaeological district, one has been recommended eligible for the CRHR, three have been recommended ineligible, and two have not been evaluated. Details pertaining to these resources are presented in Table 3. The locations of the previously recorded isolates and sites are shown on Figure 39 and Figure 40 in Appendix D, respectively.

Table 3. Previously Recorded Cultural Resources within the APE and its 0.5-mile Radius

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-000193	CA-RIV-0193	Site	Prehistoric	Petroglyphs	1973 (Shepard); 1987 (D. F. McCarthy, Archaeological Research Unit, U C Riverside [ARU]); 1998 (H. Quinn, CRM TECH [CRM]); 2000 (B. Love, and Bai Tang, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001331	CA-RIV-1331	Site	Prehistoric	Habitation site	1989 (B. S. Arkush, ARU)	Within	Eligible
P-33-001332	CA-RIV-1332	Site	Prehistoric	Cache site	1972 (P.J. Wilke)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001337	CA-RIV-1337	Site	Prehistoric	Habitation site	1972 (P.J. Wilke)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001338	CA-RIV-1338	Site	Prehistoric	Habitation site, and lithic scatter	1972 (P.J. Wilke)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001339	CA-RIV-1339	Site	Prehistoric, Historic,	Ceramic, and lithic scatter	1972 (Wilke, P. J.); 1980 (Wilke, P. J., ARU); 2008 (M. Hogan)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001340	CA-RIV-1340	Site	Prehistoric	Lithic scatter	1972 (P. Wilke); 1998 (B. Love, CRM); 2010 (M. Hogan and D. Ballester, CRM)	Outside (within 0.5 mile)	Unknown Eligibility

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-001343	CA-RIV-1343	Site	Prehistoric	Cremation, sherd scatter	1972 (P. J Wilke); 1980 (P.J. Wilke); 1998 (Bruce Love, CRM); 2003 (D. Ballester, CRM); 2010 (M. Hogan and D. Ballester, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001344	CA-RIV-1344	Site	Prehistoric	Campsite, sherd scatter	1972 (P.J. Wilke)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001346	CA-RIV-1346	Site	Prehistoric	Lithic scatter	1972 (J. Craib); 1981 (J. D. Swenson); 2002 (D. Ballester)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001347	CA-RIV-1347	Site	Prehistoric	Small raised dune	1972 (J. Craib); 1981 (J. D. Swenson)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001349	CA-RIV-1349	Site	Prehistoric	Rock shelter	1972 (J. Craib); 1989 (B. S. Arkush, ARU); 2006 (S. O'Neil, SWCA)	Outside (within 0.5 mile)	Eligible
P-33-001350	CA-RIV-1350	Site	Prehistoric	Rock shelter	1972 (R. Black)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001715	CA-RIV-1715	Site	Prehistoric	Rock art panels	1998 (H. Quinn, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-001717	CA-RIV-1717/H	Site	Prehistoric, Historic	Ceramic, and lithic scatter	1979 (T. M. Kearns, Scientific Resource Surveys, Inc., Santa Ana, CA); 1998 (B. Love, B. Tang, H. M. Quinn and R. H. Norwood, Cultural Resources Report, Coral Mountain Project, Riverside, CA)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-003872	CA-RIV-3872	Site	Prehistoric	Bedrock milling station	1990 (B. S. Arkush, ARU); 2006 (S. O'Neil, SWCA)	Within	Eligible
P-33-003873	CA-RIV-3873	Site	Prehistoric	One milling slick	1990 (B. S. Arkush, ARU); 2006 (S. O'Neil, SWCA)	Within	Eligible
P-33-003874	CA-RIV-3874	Site	Prehistoric	Ceramic scatter	1990 (A. Duffield, Bureau of Land Management, Palm Springs, CA); 1990 (B.S. Arkush, ARU); 2006 (S. O'Neil, SWCA)	Within	Eligible
P-33-003875	CA-RIV-3875	Site	Prehistoric	Ceramic scatter	1990 (B. S. Arkush, ARU)	Within	Ineligible
P-33-003876	CA-RIV-3876	Site	Prehistoric	Ceramic scatter	1990 (B. S. Arkush, ARU)	Within	Ineligible

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-005213	CA-RIV-5213	Site	Prehistoric	Ceramic scatter	1987 (D. Gallegos, C. Kyle, R. Phillips, and A. Pigniolo, WESTEC Services)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-005214	CA-RIV-5214	Site	Prehistoric	Ceramic scatter	1987 (D. Gallegos, C. Kyle, R. Phillips, and A. Pigniolo, WESTEC Services); 1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-005319	CA-RIV-5319	Site	Prehistoric	Ceramic scatter, chipped stone, and a granite mano	2003 (D. Ballester, N/A); 1994 (W. McManis, The Keith Companies [TKC])	Within	Ineligible
P-33-005320	CA-RIV-5320	Site	Prehistoric	Ceramic scatter	1994 (W. McManis, TKC)	Outside (within 0.5 mile)	Ineligible
P-33-005321	CA-RIV-5321	Site	Prehistoric	Hearth	1994 (W. McManis, TKC)	Within	Ineligible
P-33-005322	CA-RIV-5322	Site	Prehistoric	Milling slick	2006 (S. O'Neil, SWCA); 1994 (W. McManis, TKC)	Outside (within 0.5 mile)	Eligible
P-33-005323	CA-RIV-5323	Site	Prehistoric	Milling slick	2006 (S. O'Neil, SWCA); 1994 (W. McManis, TKC)	Within	Eligible
P-33-005324	CA-RIV-5324	Site	Prehistoric	Milling slick	1994 (P. G. Chace and C. Reeves, TKC)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008028	CA-RIV-5977	Site	Prehistoric	Ceramic scatter	1997 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008364	CA-RIV-6098	Site	Prehistoric	Ceramic scatter	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008365	CA-RIV-6099	Site	Prehistoric	Ceramic scatter	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008366	CA-RIV-6100	Site	Prehistoric	Partially fired clay, and hearth	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008367	CA-RIV-6101	Site	Prehistoric	Ceramic scatter	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008368	CA-RIV-6102	Site	Prehistoric	Ceramic scatter	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008369	CA-RIV-6103H	Site	Historic	Irrigation system	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008386	CA-RIV-6120	Site	Prehistoric	Ceramic scatter	1998 (B. Love, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-008919		Isolate	Prehistoric	Tizon Brown pottery	1994 (W. McManis, TKC)	Within	Ineligible - Isolate

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-008920		Isolate	Prehistoric	Tizon Brown pottery	1994 (W. McManis, TKC)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008921		Isolate	Prehistoric	Anodonta fragment	1994 (W. McManis, TKC)	Within	Ineligible - Isolate
P-33-008922		Isolate	Prehistoric	Tizon Brown pottery	1994 (W. McManis, TKC)	Within	Ineligible - Isolate
P-33-008955		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008956		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008957		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008958		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008959		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008960		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008961		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008962		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008963		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-008964		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009000		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009001		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009002		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009003		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009004		Isolate	Prehistoric	Brownware sherds	1998 (B. Love, CRM Tech)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-009545	CA-RIV-6404	Site	Prehistoric	Petroglyphs	1998 (H. Quinn, CRM)	Outside (within 0.5 mile)	Unknown Eligibility

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-011347		Isolate	Prehistoric	Tizon Brownware sherd	1990 (B.S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-011348		Isolate	Prehistoric	Tizon Brownware sherd	1990 (B. S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-011349		Isolate	Prehistoric	Tizon Brownware sherd	1990 (B. S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-011350		Isolate	Prehistoric	Ceramic body sherd	1990 (B. S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-011351		Isolate	Prehistoric	Quartz flake	1990 (B. S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-011352		Isolate	Prehistoric	Tizon Brownware sherd	1990 (B. S. Arkush, ARU)	Within	Ineligible - Isolate
P-33-012259		Isolate	Prehistoric	Potsherds	2002 (J. Sander, Chambers Group Inc.)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-012956	CA-RIV-7205/H	Site	Prehistoric	Ceramic, and lithic scatter	2005 (D. Ballester, CRM)	Outside (within 0.5 mile)	Ineligible
P-33-013288	CA-RIV-7394	Site	Historic	Structure	1982 (M. Luven, Riverside County Historical Comm.)	Within	Eligible
P-33-013296	CA-RIV-7398	Site	Prehistoric	Ceramic potsherds, lithics, and ground stone	2003 (D. Ballester, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-013297	CA-RIV-7399	Site	Prehistoric	Ceramic scatter, and a metate fragment	2003 (J. J. Eddy, CRM)	Outside (within 0.5 mile)	Unknown Eligibility
P-33-014844	CA-RIV-7911	Site	Prehistoric	Milling Slicks	2004 (P. Paige and M. Tuma, SWCA)	Within	Eligible
P-33-014845	CA-RIV-7912	Site	Prehistoric	Milling Station	2004 (P. Paige and M. Tuma, SWCA)	Within	Eligible
P-33-014846	CA-RIV-7913	Site	Prehistoric	Milling Station	2004 (P. Paige and M. Tuma, SWCA)	Within	Eligible
P-33-014847	CA-RIV-7914	Site	Prehistoric	Milling Station	2005 (M. Tuma, M. Cruz and S. O'Neil, SWCA)	Outside (within 0.5 mile)	Eligible
P-33-014852		Isolate	Prehistoric	Metate and Mano	2005 (M. Tuma, M. Cruz and S. O'Neil, SWCA)	Within	Ineligible - Isolate
P-33-014853		Isolate	Prehistoric	Lithic scraper	2005 (M. Tuma, M. Cruz, L. Burgos, M. Garrity and S. O'Neil, SWCA)	Within	Ineligible - Isolate
P-33-014854		Isolate	Prehistoric	Tizon Brownware sherd	2005 (S. O'Neil, and K. Hunt, SWCA)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-014855		Isolate	Prehistoric	Tizon Brownware sherd	2005 (S. O'Neil, and K. Hunt, SWCA)	Within	Ineligible - Isolate

Primary Number	Trinomial	Resource Type	Temporal Affiliation	Resource Description	Recording Year (Name, Affiliation)	Proximity to APE	Eligibility Status
P-33-014856		Isolate	Prehistoric	Tizon Brownware sherd	2005 (S. O'Neil, and K. Hunt, SWCA)	Within	Ineligible - Isolate
P-33-014857		Isolate	Prehistoric	Lithic scatter	2005 (S. O'Neil, and K. Hunt, SWCA)	Within	Ineligible - Isolate
P-33-014858		Isolate	Prehistoric	Rock scatter	2005 (S. O'Neil, and K. Hunt, SWCA)	Within	Ineligible - Isolate
P-33-014985	CA-RIV-7960	Site	Prehistoric	Ceramic scatter	2005 (S. O'Neil, and K. Hunt, SWCA)	Outside (within 0.5 mile)	Ineligible
P-33-014986	CA-RIV-7961	Site	Prehistoric	Ceramic scatter	2005 (S. O'Neil, and K. Hunt, SWCA)	Outside (within 0.5 mile)	Ineligible
P-33-014987	CA-RIV-7962	Site	Prehistoric	Rock Cluster	2005 (S. O'Neil, and K. Hunt, SWCA)	Outside (within 0.5 mile)	Unevaluated
P-33-014988	CA-RIV-7963	Site	Prehistoric	Milling Slicks	2006 (S. O'Neil, and K. Hunt, SWCA)	Outside (within 0.5 mile)	Eligible
P-33-014989		Isolate	Prehistoric	Tizon Brownware sherd	2004 (P. Paige, and M. Tuma, SWCA)	Outside (within 0.5 mile)	Ineligible - Isolate
P-33-15642	CA-RIV-8152	Site	Prehistoric	Native American Trail	2006 (Roschkow, BLM)	Within	Unevaluated
P-33-017755		Isolate	Historic	Ceramic scatter	2002 (R. Porter, CRM)	Outside (within 0.5 mile)	Ineligible - Isolate
	CA-RIV-1342	Unknown	Unknown	Unknown		Outside (within 0.5 mile)	Unevaluated

Sacred Lands File Search

The City of La Quinta requested a Native American consultation list from the NAHC in August of 2017. The NAHC emailed a response to the City of La Quinta's consultation list request on August 23, 2017 (Appendix A). There was no SLF search conducted at this time. In July of 2017 SWCA contacted the NAHC and requested a Native American Consultation list and an SLF search. The NAHC emailed their response to SWC's SLF search request on July 27, 2017. The SLF search did not identify any specific site information within the APE. The NAHC noted that negative results may not indicate the absence of Native American cultural resources in the area and provided a contact list of 20 Native American tribal organizations that may have knowledge of cultural resources in or near the study area. The Lead Agency initiated a Native American Contact Program on August 28, 2017.

Table 4. Summary of Native American Individuals and Groups Culturally Affiliated with the APE

Native American Contact	Lead Agency's Coordination Efforts	Native American Reponses
Agua Caliente Band of Cahuilla Indians Jeff Grubbe, Chairperson	Letter Sent: 8/28/2017 Called Katie Croft, Tribe archaeologist: 9/22/2017 Cultural report sent to Katie Croft: 10/4/2017 CHRIS Record Search information, Management Recommendations, and Survey Results Maps were sent to Pattie Garcia-Plotkin: 1/23/2018	Katie Croft is the Tribe archaeologist and she responded. The City received the correspondence on 9/20/17. Ms. Croft requested the report and the City sent it 10/4/17. On 11/5/17, The City also asked Ms. Croft if she would like to have a meeting, and the Tribe said "Yes" on 11/6/17. But by the time of this report, the City had not been successful in setting up a meeting, despite its attempts. On 1/12/2018 Ms. Pattie Garcia-Plotkin contacted the City of La Quinta regarding the Travertine Project and requested the survey results maps, CHRIS results, and recommendation tables.
Augustine Band of Cahuilla Mission Indians Amanda Vance, Chairperson	Letter Sent: 8/28/2017	No response received.
Cabazon Band of Mission Indians Doug Welmas, Chairperson	Letter Sent: 8/28/2017	No response received.
Cahuilla Band of Indians Daniel Salgado, Chairperson	Letter Sent: 8/28/2017	No response received.
Campo Band of Mission Indians Ralph Goff, Chairperson	Letter Sent: 8/28/2017	No response received.
Ewiiaapaayp Tribal Office Robert Pinto, Chairperson	Letter Sent: 8/28/2017	No response received.
Jamul Indian Village Erica Pinto, Chairperson	Letter Sent: 8/28/2017	No response received.
La Posta Band of Mission Indians Gwendolyn Parada, Chairperson	Letter Sent: 8/28/2017	No response received.
Los Coyotes Band of Mission Indians Shane Chapparose, Chairperson	Letter Sent: 8/28/2017	No response received.
Manzanita Band of Kumeyaay Nation Angela Elliot Santos, Chairperson	Letter Sent: 8/28/2017	No response received.
Mesa Grande Band of Mission Indians Virgil Oyos, Chairperson	Letter Sent: 8/28/2017	No response received.
Ramona Band of Cahuilla Mission Indians Joseph Hamilton, Chairperson	Letter Sent: 8/28/2017	No response received.
San Pasqual Band of Mission Indians Allen E. Lawson, Chairperson	Letter Sent: 8/28/2017	No response received.

Native American Contact	Lead Agency's Coordination Efforts	Native American Reponses
Santa Rosa Band of Mission Indians Steven Estrada, Chairperson	Letter Sent: 8/28/2017	No response received.
Torres-Martinez Desert Cahuilla Indians Mary Resvaloso, Chairperson	Letter Sent: 8/28/2017 Follow Up Phone call: 10/16/2017, 10/202017, and 11/8/2017 Cultural report sent: 11/8/2017	On 10/16/17, 10/20/17, and 11/8/17, the City contacted the Tribe. Because this Tribe is the closest one to the APE, the City would like their input. Therefore, the City sent an unrequested cultural report to the new Tribal Chairperson, Thomas Tortez, P.O. Box 1177, Thermal, CA 92274.
Twenty-Nine Palms Band of Mission Indians Darrell Mike, Chairperson	Letter Sent: 8/28/2017 In person meeting: 10/3/2017 Cultural report sent: 11/15/2017	Met with representative of Twenty-Nine Palms Band of Mission Indians on 10/3/2017. They requested a copy of the previous cultural report to review. The City followed up with the Tribe on 11/15/17. However, by the date of this report, the Tribe had not responded.
Viejas Band of Kumeyaay Indians Robert Welch, Chairperson	Letter Sent: 8/28/2017	Received response letter on 9/5/2017. The Tribe indicated that no further consultation would be needed unless there were inadvertent discoveries at the site.

Field Survey

The previous survey conducted by SWCA in 2005 covered 941 acres and resulted in the identification or updated recordation of 21 sites. Twelve of the sites identified in 2006 intersect the altered APE and were identified as either eligible for the NRHP or were not evaluated (Sikes et al. 2006). Additionally, one site was identified within the APE by a BLM archaeologist after SWCA's 2005 survey. The current field effort aimed to revisit all 13 of the sites that intersect the APE and have been identified as either eligible for the NRHP or were not previously evaluated in order to confirm the boundaries of these sites and to ensure they have not changed since 2006 SWCA.

Between September 19 and September 21, 2017 SWCA archaeologists Erica Nicolay, M.A., and Lindsay Fontenot, B.A., revisited 14 sites that were identified during the original 2006 survey or during investigations by the BLM as being either within the APE or within 5 meters of the APE, since 5 meters is within the normal error of the 2005-era GPS. The CHRIS search conducted for this project indicated these sites have either been recommended eligible for the NRHP or have not been evaluated. All 13 sites and their current statuses are described below. The location of the sites visited in relation to the location where these sites were previously recorded is shown on Figure 41 - Figure 47 in Appendix D.

Following fieldwork, SWCA prepared DPR 523 Series forms for all newly recorded and updated resources, including primary record, archaeological site record, location map, and sketch map forms, as well as additional forms as needed. All completed DPR 523 Series forms can be found in Appendix D. DPR forms for all newly recorded and updated archaeological resources will be submitted to the SCCIC, which will issue primary numbers for all newly recorded resources and trinomials for all newly recorded archaeological sites. Based on the Sikes et al. (2006) report (fieldwork performed in 2005 and 2006) and the current investigations, there are 18 sites in or near the project APE. Of these 18 sites, there are 14 that are within the APE and 4 that are outside the APE but within the records search radius (Table 5).

As part of the current effort, SWCA archaeologists revisited 14 sites within the APE that had been originally recorded in the 2005 survey and were identified as being within the APE or close enough to the border to warrant a revisit. All of these sites were either previously unevaluated or recommended eligible for listing to the NRHP or CRHR. All 14 sites were relocated; 10 are confirmed to be located within the current APE (CA-RIV-1331, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5321, CA-RIV-7394, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, and CA-RIV-8152) and four are confirmed to be located outside of the current APE (CA-RIV-5322, CA-RIV-5323, CA-RIV-7914, and CA-RIV-7963) but within the records search radius.

Additionally, there are four sites located within the APE that were recommended ineligible and therefore not revisited as part of this survey: CA-RIV-3875, CA-RIV-3876, CA-RIV-5319, and CA-RIV-5320. Table 5 summarizes the site revisit efforts as well as the sites located within the APE that were not revisited because they were recommended ineligible for listing to the NRHP or CRHR.

Table 5. Cultural Resources Identified within or near the APE in 2006 and/or 2017

Primary Number	Trinomial	Resource Type	Site Description	Proximity to Revised APE	Revisited in 2017
P-33-001331	CA-RIV-1331	Prehistoric archaeological site	Habitation site	Within [redacted]	Yes
P-33-003872	CA-RIV-3872	Prehistoric archaeological site	Three Milling Slicks	Within [redacted]	Yes
P-33-003873	CA-RIV-3873	Prehistoric archaeological site	Milling Slick	Within [redacted]	Yes
P-33-003874	CA-RIV-3874	Prehistoric archaeological site	Milling Slick and ceramic scatter	Within [redacted]	Yes
P-33-003875	CA-RIV-3875	Prehistoric archaeological site	Prehistoric Ceramic scatter	Within [redacted]	No
P-33-003876	CA-RIV-3876	Prehistoric archaeological site	Prehistoric Ceramic scatter	Within [redacted]	No
P-33-005319	CA-RIV-5319	Prehistoric archaeological site	Prehistoric artifact scatter	Within [redacted]	No
P-33-005320	CA-RIV-5320	Prehistoric archaeological site	Ceramic pot drop	Within [redacted]	No
P-33-005321	CA-RIV-5321	Prehistoric archaeological site	Rock Alignment	Within [redacted]	Yes
P-33-05322	CA-RIV-5322	Prehistoric archaeological site	Milling Slick and rock shelter	Outside	Yes
P-33-005323	CA-RIV-5323	Prehistoric archaeological site	Milling Slick	Outside	Yes
P-33-013288	CA-RIV-7394	Multicomponent archaeological site	Multicomponent ceramic scatter, historic trash scatter, habitation site	Within [redacted]	Yes
P-33-014844	CA-RIV-7911	Prehistoric archaeological site	Milling Slick	Within [redacted]	Yes
P-33-014845	CA-RIV-7912	Prehistoric archaeological site	Milling Slick	Within [redacted]	Yes
P-33-014846	CA-RIV-7913	Prehistoric archaeological site	Milling Slick	Within [redacted]	Yes
P-33-014847	CA-RIV-7914	Prehistoric archaeological site	Milling Slick	Outside	Yes
P-33-014988	CA-RIV-7963	Prehistoric archaeological site	Milling Slick	Outside	Yes
P-33-15642	CA-RIV-8152	Prehistoric archaeological site	Native American Trail	Within [redacted]	Yes

CA-RIV-1331 (P-33-001331)

CA-RIV-1331 was originally recorded by P. Wilke in 1972 who described the site as a prehistoric habitation site containing several large granite boulders with rock walls which may have been domestic structures, one rock ring, sparse quartz debitage, and a sparse tizon brownware scatter. The site was updated once in 1989 by B. Arkush who described the site as being largely unchanged since its original recordation. The majority of the original features were still present in 1989; however, the surface assemblage appeared to have been collected over time. The site record was updated during a survey of the Project Area conducted by SWCA in 2005. At that time all previously recorded features were observed. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-1331 and 12 other nearby sites (CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site is in the same condition as the recordation in 2005 (Sikes et al. 2006), however the original rock ring and bedrock mortar that had been previously identified and mapped within the APE were not relocated. The originally recorded rock wall was relocated but was found outside of the current APE. The site boundary was not updated as a result of this site visit because the overall site boundary appeared to be accurate. (Appendix D: Figure 43).

Figure 5. CA-RIV-1331 site overview facing northwest.

CA-RIV-3872 (P-33-003872)

CA-RIV-3872 was originally recorded in 1990 by B. Arkush who described the site as a bedrock milling station. The site consisted of three milling slicks on two separate boulders and one unifacial mano. The site was updated during a survey of the Project Area conducted by SWCA in 2005 (Sikes et al. 2006). At that time the site was re-visited and the milling slick was relocated. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-3872 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-

7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The previously recorded boulder with two grinding slicks was relocated within the APE (Figure 6 and Figure 7). As in the 2006 update, archaeologists were not able to relocate the second boulder with grinding slick and the unifacial mano which were observed in 1990. The site was located within the APE, approximately 4 meters away from its 2005 recordation, which is within the margin of error for 2005-era GPS technology (Appendix D: Figure 41).

Figure 6. CA-RIV-3872 overview; view facing north.

Figure 7. CA-RIV-3872 plan-view of boulder relocated with grinding slicks.

CA-RIV-3873 (P-33-003873)

CA-RIV-3873 was originally recorded in 1990 by B. Arkush who described the site as a single milling slick. The site was updated during a survey of the Project Area conducted by SWCA in 2005. At that time the site was relocated and recorded. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-3873 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its previous recording; see Figure 8 and Figure 9). The site was located within the APE, in the same location as identified during the 2005 survey (Appendix D: Figure 41).

Figure 8. CA-RIV-3873 overview; view facing west.

Figure 9. CA-RIV-3873 milling station; plan view.

CA-RIV-3874 (P-33-003874)

CA-RIV-3874 was originally recorded in 1990 by B. Arkush who described the site as a single milling slick. The site was updated in 1990 by D. Duffield who also located a small scatter of approximately 25 Colorado buff ceramic sherds northeast of the feature. The site was updated during a survey of the Project Area conducted by SWCA in 2005. At that time the site was relocated and one milling station was observed,

the ceramic scatter could not be relocated. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-3874 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its previous recording in 2005; as in 2005 no ceramic sherds were located near the milling station (Figure 10 and Figure 11). The site was located within the APE in the same location as identified in 2005 (Appendix D: Figure 42).

Figure 10. CA-RIV-3874 overview; view facing north.

Figure 11. CA-RIV-3874 milling station; plan-view.

CA-RIV-5321 (P-33-005321)

CA-RIV-5321 was originally recorded in 1994 by B. McManis who described the site as a prehistoric hearth with no associated artifacts. The site was recommended ineligible for the NRHP by Chache in 1994.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and remains unchanged since its initial recording (Figure 12 and Figure 13). SWCA archaeologists noted that the rocks appear to be placed directly on top of ground and there does not appear to be any buildup of sand or gravels around the rocks (an occurrence for rock rings that have been present since prehistory). These indications suggest that the rock ring may be a historic hearth constructed in modern times rather than a prehistoric hearth as previously suggested. The site was located within the APE, approximately 21 meters [redacted] from its 2005 recordation (Appendix D: Figure 39).

Figure 12. CA-RIV-5321 overview; view facing west.

Figure 13. CA-RIV-5321 overview; plan-view.

CA-RIV-5322 (P-33-005322)

CA-RIV-5322 was originally recorded in 1994 by B. McManis who described the site as a bedrock milling station with a single grinding slick. The site was updated during a survey of the Project Area conducted by SWCA in 2005. At that time the site was relocated and the one milling slick was relocated. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-

5322 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3873, CA-RIV-3874, CA-RIV-53221, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was originally recorded 10 meters southeast of the APE and thus was field verified since this is within the error margin of 2005-era GPS systems. The site was relocated and remains unchanged; however the originally recorded UTMs were incorrect; the site is actually located 36 meters further [redacted] (Figure 14 and Figure 15). The original UTMs and the updated UTMs both place the site [redacted] outside of the APE (Appendix D: Figure 40).

Figure 14. CA-RIV-5322 overview; view facing north.

Figure 15. CA-RIV-5322 plan-view of boulder relocated with grinding slicks.

CA-RIV-5323 (P-33-005323)

CA-RIV-5323 was originally recorded in 1994 by B. McManis who described the site as a milling slick. The site was updated during a survey of the Project Area conducted by SWCA in 2005. At that time the site was relocated and recorded. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-5323 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recordings. The slick is located near an extremely large boulder [redacted] (Figure 18 and Figure 19). In SWCA's 2006 site update, the words were mistakenly associated with site CA-RIV-3874. Additionally, the originally recorded location was not accurate; the site is actually located 44 meters southwest (Appendix D: Figure 42).

Figure 16. CA-RIV-5323 overview; view facing east, with blue graffiti evident.

Figure 17. CA-RIV-5323 overview; plan-view.

CA-RIV-7394 (P-33-013288) [originally CA-RIV-1334 and CA-RIV-1341/1351]

CA-RIV-7394 was originally recorded in 2003 by D. Ballester. The site encompasses two individual sites, CA-RIV-1334 and CA-RIV-1341/1351, and artifacts found between them to form a larger site complex. CA-RIV-1334 was originally recorded by J. Craib in 1972 who described the site as a light prehistoric ceramic scatter. At the time of its original recordation there was a light scatter of mostly reddish-brown ceramic sherds and one worked sherd disc which was collected. Site CA-RIV-1341 and site CA-RIV-1351 were initially recorded as separate sites by Black and Wilke in 1972 who described both sites as prehistoric ceramic scatters. CA-RIV-1351 was updated in 1990 by B. Arkush. The site had been heavily affected by recreational campers, evidenced by much of the surface assemblage being looted. The site was updated a second time in 1994 by McManis who indicated that this site, and neighboring site CA-RIV-1341 had lost all integrity as individual sites and suggested they be combined into a single site called CA-RIV-1341/1351. At that time there were approximately 300 Tizon brownware fragments and one piece of quartz debitage documented. Both sites (CA-RIV-1341/1351 and CA-RIV-1334) were updated by D. Ballester in 2003 who indicated that the sites were in such close proximity to each other that they should be re-recorded as a larger site complex. The larger site was designated CA-RIV-7394.

When CA-RIV-7394 was recorded in 2003 by Ballester, it included 10 distinct loci consisting primarily of ceramic sherd scatters. Segments of Native American trails were located within two of the loci and cremation features were located in three of the loci. The site was updated in 2006 by Sikes et al. who identified a thin, nearly continuous scatter of ceramic sherds along the former Lake Cahuilla shoreline. As a result of this, the site was expanded to include this ceramic scatter. Within the newly formed site boundaries there are 25 distinct loci, two segments of Native American trails, rock rings, projectile points, and numerous isolated ceramic sherds and pot drops. All artifacts within the 25 loci consisted mainly of Tizon brownware with some Colorado Buff Ware present.

In the original survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7394 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the [redacted] which overlaps the current APE on September 20, 2017. The site was relocated and many features of the site were identified including rock rings (Figure 20), pot drops (Figure 19), ceramic concentrations, Native American trails, rock alignments, rock cairns, and historic trash scatters. There is a light, but continuous, ceramic and historic trash scatter throughout the site, with some areas exhibiting a higher density of artifacts. The densest area of historic trash occurs at the northwestern portion of the site where there are several large loci of historic trash, mainly cans. In addition to historic cans there are large quantities of glass fragments, building material, and historic ceramic. There are over 500 cans in this portion of the site with the majority being sanitary food and beverage cans (Figure 20 and Figure 21). In the southwestern portion of the site the loci of historic trash and glass are much less dense. In total there are approximately 50 historic cans in the southwestern portion of the site, mainly sanitary cans. In addition to the prehistoric and historic component of the site, there is modern trash throughout the site, including cans, bottles, and bullet shells. It is apparent that the site is still used today as a recreational locale and as a shooting site. The site boundaries were not changed during this site visit (Appendix D: Figure 44 - Figure 47). Figure 22 shows an updated site sketch with additional features that SWCA identified during the current survey effort.

Figure 18. CA-RIV-7394; Rock ring; view facing north.

Figure 19. CA-RIV-7394; Pot Drop; plan view.

Figure 20. CA-RIV-7349; Northwest area of site; historic trash scatter; view facing south.

Figure 21. CA-RIV-7394; Historic trash scatter in northwest portion of site; view facing northeast.

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Figure 22. CA-RIV-7394 site sketch with additional features identified by SWCA in 2017.

CA-RIV-7911 (P-33-014844)

CA-RIV-7911 was originally recorded in 2004 by P. Paige and M. Tuma who described the site as a granitic boulder with five milling slicks. The site was updated during a survey of the Project Area conducted by SWCA in 2005. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7911 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recording (Figure 23 and Figure 24). The site was located within the APE approximately 3 meters northwest of its previous recordation, this distance falls within the margin of error for 2005-era GPS technology (Appendix D: Figure 40).

Figure 23. CA-RIV-7911 site overview; View facing northwest.

Figure 24. CA-RIV-7911 site overview; View facing east.

CA-RIV-7912 (P-33-014845)

CA-RIV-7912 was originally recorded in 2004 by Paige and Tuma who described the site as a granitic boulder with one milling slick. In the original survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7912 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7913, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recordings (see Figure 25 and Figure 26). Two medium sized unmodified cobbles had been arranged on the boulder, possibly serving as a marking. When comparing this rock arrangement to SWCA's previous recordation, it is apparent that these are the same rocks observed in 2005. The site was located within the APE approximately 5 meters south of its previous recordation, this distance falls within the margin of error for 2005-era GPS technology (Appendix D: Figure 40).

Figure 25. CA-RIV-7912 overview; view facing northwest.

Figure 26. CA-RIV-7912 overview; plan-view.

CA-RIV-7913 (P-33-014846)

CA-RIV-7913 was originally recorded in 2004 by Paige and Tuma who described the site as a granitic boulder with one milling slick. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7913 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-

RIV-7912, CA-RIV-7914, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recordings (Figure 27 and Figure 28). The site is located within the APE and was located in a similar location as previously recorded (Appendix D: Figure 41).

Figure 27. CA-RIV-7913 overview; view facing east.

Figure 28. CA-RIV-7913 overview; plan-view.

CA-RIV-7914 (P-33-014847)

CA-RIV-7914 was originally recorded in 2005 by Tuma and O'Neil who described the site as a granitic boulder with one milling slick. As a result of the same recordation by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7914 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7394, and CA-RIV-7963) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recordings (Figure 29 and Figure 30). The site was recorded outside the APE, but within 10 meters of the APE and thus was field verified since this is within the error margin of 2005-era GPS systems. The site was located approximately 4 meters away from its previous recordation and was confirmed to be [redacted] outside of the APE (Appendix D: Figure 40).

Figure 29. CA-RIV-7914 overview; view facing north.

Figure 30. CA-RIV-7914 overview; plan-view.

CA-RIV-7963 (P-33-007963)

CA-RIV-7963 was originally recorded in 2006 by O'Neil and Beeler during a survey of the Project Area conducted by SWCA in 2006. The site was initially described as a single bedrock milling slick on a boulder. In the survey report produced by SWCA in 2006, Sikes et al. (2006) evaluated the site and recommended that CA-RIV-7963 and 12 other nearby sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7394) be recorded as elements of an archaeological district (Sikes et al. 2006). However, that district has never been defined or nominated.

SWCA archaeologists revisited the site on September 19, 2017. The site was relocated and appears unchanged from its past recordings (Figure 31 and Figure 32). The site was recorded outside the APE, but within 10 meters, and thus was field-verified since this is within the error margin of 2005-era GPS systems. The site is confirmed to be [redacted] outside of the APE (Appendix D: Figure 42).

Figure 31. CA-RIV-7963 overview; view facing east.

Figure 32. CA-RIV-7963 overview; plan-view.

CA-RIV-8152 (P-33-015642)

CA-RIV-8152 was originally recorded in 2006 by Raschkow who described the site as a trail segment running from a small canyon northeast across a rocky alluvial fan. The trail provides a route between the Santa Rosa Mountains and the ancient shore bed of Lake Cahuilla. Site CA-RIV-7394 (see Figures 20-24)

has been recorded [redacted] The site (CA-RIV-8152) has never been updated or evaluated for the NRHP.

SWCA archaeologists revisited the site on September 20, 2017. The site was relocated and appears to have been unchanged since its original recordation (Figure 33). [redacted] No artifacts were identified on the trail. One rock cairn was identified along the trail (Figure 34). This rock cairn is a new addition to the site as both rock cairns identified by Raschkow in 2006 were located outside of the APE. The trail was relocated 1 to 9 meters south of the location where it was originally recorded (Appendix D: Figure 44). This distance is within the margin of error for 2006-era GPS systems.

Figure 33. CA-RIV-8152 overview; View facing east.

Figure 34. CA-RIV-8152; Rock Cairn along trail; View facing east.

EVALUATIONS

Based on the Sikes et al. (2006) report (fieldwork performed in 2005 and 2006) and the current investigations, there are 18 sites in or near the project APE. Of these 18 sites, there are 14 that are within the APE and 4 that are outside the APE but within the records search radius (Table 5).

As part of the current effort, SWCA archaeologists revisited 14 sites within the APE that had been originally recorded in the 2005 survey and were identified as being within the APE or close enough to the border to warrant a revisit. All of these sites were either previously unevaluated or recommended eligible for listing to the NRHP or CRHR. All 14 sites were relocated; 10 are confirmed to be located within the current APE (CA-RIV-1331, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5321, CA-RIV-7394, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, and CA-RIV-8152) and four are confirmed to be located outside of the current APE (CA-RIV-5322, CA-RIV-5323, CA-RIV-7914, and CA-RIV-7963) but within the records search radius.

Additionally, there are four sites located within the APE that were recommended ineligible and therefore not revisited as part of this survey: CA-RIV-3875, CA-RIV-3876, CA-RIV-5319, and CA-RIV-5320. Table 5 summarizes the site revisit efforts as well as the sites located within the APE that were not revisited because they were recommended ineligible for listing to the NRHP or CRHR.

Prehistoric archaeological sites qualify as NHPA “historic properties” and/or CEQA “historical resources” if they are determined to be eligible for listing on the NRHP or CRHR, respectively. To be considered eligible to the NRHP or CRHR, resources must possess physical integrity. Prehistoric archaeological resources are typically evaluated relative to their ability to meet Criterion D on the NRHP and Criterion 4 on the CRHR: that the site has yielded, or may be likely to yield, information important in prehistory or history. A variety of prehistoric archaeological property types may qualify as historical resources if they address research questions considered to be important in the field of prehistoric archaeology. The direct study of prehistoric archaeological sites and artifacts has the potential to yield information about prehistory that is not otherwise addressed or available in the documentary record.

Historic archaeological sites can be considered NHPA "historic properties" and/or CEQA "historical resources" if they are determined to be eligible for listing on the NRHP, CRHR, or local listings. To be considered eligible to the NRHP, CRHR, or local listings, resources must possess physical integrity. Historic archaeological resources are typically evaluated relative to their ability to meet any of the four criteria for the NRHP (A through D) or CRHR (1 through 4). Sites can be eligible for listing to the NRHP or CRHR either individually or as contributors to a larger archaeological district.

Martinez Mountain Rockslide District Evaluation

In the survey report produced by SWCA in 2006, Sikes et al. evaluated all of the sites within the APE and recommended that 13 of the sites (CA-RIV-1331, CA-RIV-1349, CA-RIV-3872, CA-RIV-3873, CA-RIV-3874, CA-RIV-5322, CA-RIV-5323, CA-RIV-7394, CA-RIV-7911, CA-RIV-7912, CA-RIV-7913, CA-RIV-7914, and CA-RIV-7963) be recorded as elements of an archaeological district. However, that district was never defined or nominated.

As part of the current effort, SWCA defines the proposed district as the aforementioned 13 sites with the addition of CA-RIV-8152. Sikes et al. (2006:62) recommended that a district be created based on the fact that they seemed to be "part of a Late Prehistoric settlement system with a large resource procurement network." The proposed district is also unified by the similar feature types found at each of these sites: rock shelters, milling features, ceramic scatters, and a trail network. Review of the potential district and surrounding regional setting suggests that there are several more sites like the 13 described here that may be located further south (and outside of the APE) into the Martinez Mountain Rockslide (MMR) area (Appendix D: Figure 48). Thus the proposed archaeological district would be defined to include sites that:

(1) contain *at least* one of the following elements: (a) rock shelters, (b) milling features, (c) ceramic scatter, or (d) a trail network;

(2) date to (or potentially date to) the Late Prehistoric period (A.D. 870–Historic Contact [1200 B.P.–Historic Contact]); and

(3) are located within or abutting the MMR area.

SWCA proposes to label the district "Martinez Mountain Rockslide District" or MMRD (also referred to as the District herein; Figure 35). The MMRD is recommended eligible for listing to the NRHP and CRHR based on Criteria A/1 and D/4. The proposed MMRD has a temporal affiliation that is significant for the prehistory of the region: the Late Prehistoric. During the Late Prehistoric period in Southern California there was a marked shift in subsistence patterns, the greatest indicator of this is the presence of ceramics in archaeological sites beginning ca. A.D. 870 (see above for further discussion). Networks of trails are also evidence of the shift in subsistence strategies, demonstrating the importance of trade, travel, and exchange throughout the Southern California deserts. These subsistence and settlement patterns in the Colorado Desert were influenced by episodes of infilling and recession of the Holocene Lake Cahuilla, with the final recession around A.D. 1580 (Buckles and Krantz 2005; Laylander 1995; Waters 1983). Native populations followed the receding shoreline and continued to exploit the dwindling resources. Near the end of the Late Prehistoric period and into the Historic period, permanent villages were established on the valley floor. Permanent housing can also be demonstrated by the occurrence of rock shelters (like those in the proposed MMRD). Therefore, the proposed MMRD is recommended eligible for listing to the NRHP Criterion A and CRHR Criterion 1 based on its association with the Late Prehistoric shift in subsistence and settlement patterns.

The proposed MMRD is also recommended eligible for listing to the NRHP under Criterion D and CRHR under Criterion 4. The proposed District (and the contributing elements of the District) could yield data that are relevant to the prehistory of the region. Because the proposed District is a group of sites with similar

subsistence strategies, as a group, they may be able to answer research questions significant to the region and time period.

The Travertine Project has been re-designed to avoid impacts to significant archaeological sites (NHPA historic properties and CEQA historical resources) located within the APE. Hofmann is committed to the protection and preservation of cultural resources in accordance with federal, state, and City legislation. To that end, Hofmann has redesigned the Travertine Project to avoid disturbances to all historic properties and historical resources in and near the Project APE. [redacted]

Table 6. Summary of Management Recommendations

Primary Number	Trinomial	Site Type	Proximity to APE	NRHP Recommendation	Recommendation
P-33-001331	CA-RIV-1331	Habitation site	Within [redacted]	Eligible individually; Eligible as part of proposed MMRD	Avoidance
P-33-003872	CA-RIV-3872	Three Milling Slicks	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-003873	CA-RIV-3873	Milling Slick	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-003874	CA-RIV-3874	Milling Slick and ceramic scatter	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-003875	CA-RIV-3875	Prehistoric Ceramic scatter	Within [redacted]	Ineligible individually; Not a contributor to the proposed district	No further cultural resources work required
P-33-003876	CA-RIV-3876	Prehistoric Ceramic scatter	Within [redacted]	Ineligible individually; Not a contributor to the proposed district	No further cultural resources work required
P-33-005319	CA-RIV-5319	Prehistoric artifact scatter	Within [redacted]	Ineligible individually; Not a contributor to the proposed district	No further cultural resources work required
P-33-005320	CA-RIV-5320	Ceramic pot drop	Within [redacted]	Ineligible individually; Not a contributor to the proposed district	No further cultural resources work required
P-33-005321	CA-RIV-5321	Rock Alignment	Within [redacted]	Ineligible individually; Not a contributor to the proposed district	No further cultural resources work required
P-33-05322	CA-RIV-5322	Milling Slick and rock shelter	Outside	Ineligible individually; Eligible as part of proposed district	N/A – Outside APE

Primary Number	Trinomial	Site Type	Proximity to APE	NRHP Recommendation	Recommendation
P-33-005323	CA-RIV-5323	Milling Slick	Outside	Ineligible individually; Eligible as part of proposed district	N/A – Outside APE
P-33-013288	CA-RIV-7394	Multicomponent ceramic scatter, historic trash scatter, habitation site	Within [redacted]	Eligible individually; Eligible as part of proposed district	Avoidance
P-33-014844	CA-RIV-7911	Milling Slick	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-014845	CA-RIV-7912	Milling Slick	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-014846	CA-RIV-7913	Milling Slick	Within [redacted]	Ineligible individually; Eligible as part of proposed district	Avoidance
P-33-014847	CA-RIV-7914	Milling Slick	Outside	Ineligible individually; Eligible as part of proposed district	N/A – Outside APE
P-33-014988	CA-RIV-7963	Milling Slick	Outside	Ineligible individually; Eligible as part of proposed district	N/A – Outside APE
P-33-15642	CA-RIV-8152	Native American Trail	Within [redacted]	Eligible individually; Eligible as part of proposed district	Avoidance

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Figure 35. Proposed Martinez Mountain Rockslide District shown on a USGS topographic map.

Site Evaluations

Based on the site re-visits, SWCA's evaluation of the significance of the archaeological sites found within the APE is presented in the following sections. Included are recommendations regarding whether the sites meet the official definitions of a "historic property" as defined by Section 106 or a "historical resource" as defined by CEQA regulations. Further, the sites are evaluated individually and as potential contributors to the proposed MMRD.

CA-RIV-3872 (P-33-3872)

Site CA-RIV-3872 is a prehistoric milling site. The site is located within the current APE. [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

In 1990 the site was recommended individually ineligible for listing to the NRHP and the State Historic Preservation Officer (SHPO) concurred. However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-1331 (P-33-001331)

Site CA-RIV-1331 is a prehistoric rock shelter site that is likely the remnants of a habitation site. The site is partially located within the current APE. The eastern portion of the site, which does not contain features and contains only a sparse scatter of artifacts, is located inside the APE. [redacted] This site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site has previously been recommended individually eligible for listing to the NRHP, with SHPO concurrence. SWCA concurs that this site is individually eligible for listing in the NRHP. Further, SWCA notes that this site is located adjacent to the proposed boundaries of the MMRD and therefore recommends that the site is also eligible as a contributor to the proposed MMRD. This site is recommended individually eligible for listing in the NRHP and the CRHR under Criterion D/4 and under Criteria A/1 and D/4 as a contributor to the proposed MMRD. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-3873 (P-33-3873)

Site CA-RIV-3873 is a prehistoric milling site. The site is located within the current APE [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended ineligible for listing in the NRHP and SHPO has concurred. However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing in the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effects and no impact to this resource.

CA-RIV-3874 (P-33-3874)

Site CA-RIV-3874 is a prehistoric ceramic scatter and milling site. The site is located within the current APE; [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended ineligible for listing in the NRHP and SHPO has concurred. However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effects and no impact to this resource.

CA-RIV-3875 (P-33-3875)

Site CA-RIV-3875 is a prehistoric ceramic scatter site. The site was previously recorded as being located within the current APE, but attempts to relocated the site have been unsuccessful. [redacted]. Therefore, this site area is likely to be graded and landscaped during construction.

The site was previously recommended ineligible for listing in the NRHP or the CRHR. Further, the mapped site location is outside the proposed MMRD and attempts to relocate the site have been unsuccessful. Therefore, SWCA recommends this site is not a contributor to the proposed MMRD and that grading of the site area will not result in an adverse effect or impact because this site is not a historic property or historical resource.

CA-RIV-3876 (P-33-3876)

Site CA-RIV-3876 is a prehistoric ceramic scatter site. The site was previously recorded as being located within the current APE, but attempts to relocated the site have been unsuccessful. [redacted] Therefore, this site area is likely to be graded and landscaped during construction.

The site was previously recommended ineligible for listing in the NRHP or the CRHR. Further, the mapped location of the site is outside the proposed MMRD and attempts to relocate the site have been unsuccessful. Therefore, SWCA recommends this site is not a contributor to the proposed MMRD and that grading of the site area will not result in an adverse effect or impact because this site is not a historic property or historical resource.

CA-RIV-5319 (P-33-5319)

Site CA-RIV-5319 is a prehistoric ceramic scatter. The site is located within the current APE [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended ineligible for listing to the NRHP or the CRHR. Further, it is not located within the proposed MMRD and is not a contributor to that District. Therefore, SWCA recommends this site ineligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD. Because the site is ineligible for listing in the NRHP, it is not a historic property for the purposes of Section 106; because it is ineligible for the CRHR, it does not qualify as an historical resource under CEQA. Nonetheless, the site will be avoided during construction.

CA-RIV-5320 (P-33-5320)

Site CA-RIV-5320 is prehistoric pot drop. The site is located within the current APE [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended ineligible for listing in the NRHP or the CRHR. Further, it is not located within the proposed the proposed MMRD and is not a contributor to that District. Therefore, SWCA recommends this site ineligible for listing to the NRHP and the CRHR as a contributor to the proposed

MMRD. Because the site is ineligible for listing in the NRHP, it is not a historic property for the purposes of Section 106; because it is ineligible for the CRHR, it does not qualify as an historical resource under CEQA. Nonetheless, the site will be avoided during construction.

CA-RIV-5321 (P-33-5321)

Site CA-RIV-5321 is an isolated rock ring feature of unknown temporal affiliation. The site is located within the APE [redacted] Therefore, this site will be avoided during construction and also guarded from excessive tourism and potential looting.

The site was previously recommended ineligible for listing in the NRHP or the CRHR. Further, it is not located within the proposed MMRD and is not a contributor to that District. Therefore, SWCA recommends this site ineligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD. Because the site is ineligible for listing in the NRHP, it is not a historic property for the purposes of Section 106; because it is ineligible for the CRHR, it does not qualify as an historical resource under CEQA. Nonetheless, the site will be avoided during construction.

CA-RIV-5322 (P-33-5322)

Site CA-RIV-5322 is a prehistoric milling and rockshelter site. The site is located outside the current APE. Therefore, this site will be avoided during construction.

The site was previously recommended individually ineligible for listing in the NRHP or the CRHR (Chace 1994; Sikes et al. 2006). Currently SWCA concurs with the previous recommendation and recommends the site individually ineligible for listing in the NRHP and the CRHR. However, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effects and no impact to this resource.

CA-RIV-5323 (P-33-5323)

Site CA-RIV-5323 is a prehistoric milling site. The site was originally recorded as being located approximately 10 m inside the current boundary of the APE; however, the site is actually located outside the current APE by approximately 30 m. Therefore, this site will be avoided during construction.

The site was previously recommended individually ineligible for listing in the NRHP or the CRHR (Chace 1994; Sikes et al. 2006).Currently, SWCA concurs with the previous recommendation and recommends the site individually ineligible for listing in the NRHP and the CRHR. However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effects and no impact to this resource.

CA-RIV-7394 (P-33-13288)

Site CA-RIV-7394 is a large multi-component site with a historic-era scatter of artifacts and prehistoric features and artifacts. The site [redacted] the APE. [redacted]. Therefore, this site will be avoided during construction and also guarded from excessive tourism and potential looting.

The site has previously been recommended individually eligible for listing in the NRHP and CRHR. SWCA concurs that this site is eligible for listing to the NRHP as a standalone site. Further, SWCA notes that this site is located adjacent the proposed confines of the MMRD and therefore recommends that this site is also eligible as a contributor to the proposed MMRD. This site is recommended individually eligible for listing

in the NRHP and the CRHR under Criterion D/4 and eligible under Criteria A/1 and D/4 as a contributor to the proposed MMRD. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-7911 (P-33-14844)

Site CA-RIV-7911 is a prehistoric milling site. The site is located within the current APE; [redacted]. Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended individually ineligible for listing in the NRHP or the CRHR (Sikes et al. 2006). However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing in the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-7912 (P-33-14845)

Site CA-RIV-7912 is a prehistoric milling site. The site is located within the current APE; [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended individually ineligible for listing in the NRHP or the CRHR (Sikes et al. 2006). However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing in the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-7913 (P-33-14846)

Site CA-RIV-7913 is a prehistoric milling site. The site is located within the current APE; [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site was previously recommended individually ineligible for listing in the NRHP (Sikes et al. 2006). However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-7914 (P-33-14847)

Site CA-RIV-7914 is a prehistoric milling site. The site is located outside the current APE [redacted]. Therefore, this site will be avoided during construction.

The site has been previously recommended individually ineligible for listing in the NRHP or the CRHR (Sikes et al. 2006). However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing in the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-7963 (P-33-14988)

Site CA-RIV-7963 is a prehistoric milling site. The site is located outside the current APE [redacted]. Therefore, this site will be avoided during construction.

The site has been previously recommended individually ineligible for listing to the NRHP (Sikes et al. 2006). However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

CA-RIV-8152 (P-33-15642)

Site CA-RIV-8152 is a prehistoric trail site [redacted] The site is located within the current APE; [redacted] Therefore, this site will be avoided during construction, and also guarded from excessive tourism and potential looting.

The site has never been evaluated for listing to the NRHP or the CRHR. However, it is located within the confines of the proposed MMRD and is a contributor to that District. Therefore, SWCA recommends this site eligible for listing to the NRHP and the CRHR as a contributor to the proposed MMRD under Criteria A/1 and D/4. Because the Travertine Project will avoid this site, SWCA recommends that there will be no adverse effect and no impact to this resource.

RECOMMENDATIONS

There are 14 sites located within the APE. Of these, one is eligible individually and nine are eligible as contributors to the MMRD. However, the project has been redesigned to avoid impacts and effects to eligible resources. All resources which are eligible either individually or as contributors to the MMRD are located within open space/restricted areas which will be avoided by construction (including grubbing, grading, or other development) and allow for their conservation and protection long-term. As such, there will be no direct effects or impacts to eligible resources.

Under Section 106 of the NHPA, assessment of indirect effects to historic properties, and under CEQA, indirect impacts to historical resources and the MMRD, is also required. The indirect effects or impacts can include visual, vibration, or other impacts that may cause alterations to the character-defining features or traits of historic properties/historical resources. While the project will result in some alterations to the setting of the MMRD and the individually eligible site (CA-RIV-7394), the setting is not integral to the ability of the MMRD or CA-RIV-7394 to convey significance under Criteria A/1 (association with events that have made a significant contribution to California's history or prehistory) and Criteria D/4 (has yielded or is likely to yield data important to prehistory or history). Therefore the project will not result in indirect effects or impacts to the MMRD or CA-RIV-7394. With the implementation of the measures outlined below to ensure avoidance, SWCA recommends a finding of no adverse effect under Section 106 of the NHPA and less than significant impact to cultural resources under CEQA for this Project.

Avoidance and Mitigation Measures

SWCA has prepared the following mitigation measures in order to ensure the protection of known and unknown cultural resources. With the implementation of the following mitigation measures SWCA recommends that the proposed project will have no impact to cultural resources:

- **Retain a Qualified Archaeologist.** Hofmann Land Development Company should retain a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's

Standards for professional archaeology, to carry out all mitigation measures related to cultural resources.

- **Prepare a Monitoring and Mitigation Program Plan.** Prior to the commencement of ground disturbance, a Tribal Cultural Resources Monitoring and Mitigation Plan (Monitoring Plan) shall be prepared. The Monitoring Plan shall include, but not be limited to, monitoring protocol for ground-disturbing activities; a worker training program; and discovery and processing protocol for inadvertent discoveries of historic properties. The plan should detail a protocol for determining circumstances in which additional or reduced levels of monitoring (e.g. spot checking) may be appropriate. The monitoring plan should also establish a protocol for communicating with the Lead Agency and interested Native American parties.

- **Avoid environmentally sensitive areas.** Where operationally feasible, all NRHP and CRHR eligible resources shall be protected from direct project impacts by project redesign (i.e., relocation of the ground disturbance, ancillary facilities, or temporary facilities or work areas). Avoidance mechanisms shall include fencing off such areas as Environmentally Sensitive Areas (ESAs) for the duration of the Proposed Project. ESAs shall include the boundary of each historic property plus a 30 meter radius.

- **Worker Training.** Prior to the commencement of ground-disturbing activities, at the project kickoff, the selected qualified archaeologist or their designee will provide a briefing to construction crews to provide information on regulatory requirements for the protection of cultural resources. As part of this training, crews will be briefed on proper procedures to follow should unanticipated cultural resources discoveries be made during construction. Workers will be provided contact information and protocols to follow if inadvertent discoveries are made. Additionally, workers will be shown examples of the types of tribal cultural resources that would require notification of the project archaeologist. If necessary, the project archaeologist can create a training video, PowerPoint presentation, or printed literature that can be shown to new workers and contractors to avoid continuous training throughout the life of the project.

- **Monitoring for Cultural Resources.** Prior to ground disturbance a qualified archaeological monitor shall be retained to monitor ground-disturbing activities. The duration and timing of the monitoring shall be determined by the qualified archaeologist in consultation with the Lead Agency. The archaeological monitor will work under the supervision of the qualified archaeologist. Specifically only ESAs will require monitoring.

- **Inadvertent Cultural Resource Discoveries.** In the event that cultural resources are exposed during excavation, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Ground disturbing activities may continue in other areas. If the discovery proves significant under CEQA (Section 15064.5f; PRC 21082), additional work such as testing or data recovery may be warranted. Should any tribal cultural resources be encountered, additional consultation with NAHC-listed tribal groups should be conducted immediately in coordination with the City.

- **Unanticipated Discovery of Human Remains.** The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Los Angeles County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The Los Angeles County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Modern Remains

If the Coroner's Office determines the remains are of modern origin, the appropriate law enforcement officials will be called by the Coroner and conduct the required procedures. Work will not resume until law enforcement has released the area.

Archaeological Remains

If the remains are determined to be archaeological in origin and there is no legal question, the protocol changes depending on whether the discovery site is located on federally or non-federally owned/managed lands.

Remains discovered on federally owned/managed lands

After the Coroner has determined the remains are archaeological or historic and there is no legal question, the appropriate Field Office Archaeologist must be called. The archaeologist will initiate the proper procedures under Archaeological Resources Protection Act (ARPA) and/or NAGPRA. If the remains can be determined to be Native American, the steps as outlined in NAGPRA, 43 CFR 10.6 *Inadvertent discoveries*, must be followed.

Resumption of activity. The activity that resulted in the discovery of human remains may resume after a written, binding agreement is executed between the BLM, lineal descendants, and/or the federally recognized affiliated Indian Tribe(s) that adopts a recovery plan for the excavation or removal of the human remains, funerary objects, sacred objects, or objects of cultural patrimony following 43 CFR §10.3 (b)(1) of these regulations. The disposition of all human remains and NAGPRA items shall be carried out following 43 CFR §10.6.

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Appendix A.
Sacred Lands File Search Results

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Appendix B.
DPR Forms

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Appendix C.
2006 SWCA Report

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Appendix D.
Results Maps

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