Appendix E-1

Revised Phase I and II Cultural Resources Report

A PHASE I AND II CULTURAL RESOURCES ASSESSMENT FOR THE WEST CAMPUS UPPER PLATEAU PROJECT

MARCH AIR RESERVE BASE
RIVERSIDE COUNTY, CALIFORNIA

Submitted to:

March Joint Powers Authority
14205 Meridian Parkway, Suite 140
Riverside, California 92518

Prepared for:

Meridian Park, LLC
c/o Lewis Retail Centers
1156 North Mountain Avenue
Upland, California 91785

Prepared by:

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a Perennial Company
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July 18, 2023

BFSA Environmental Services
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Archaeological Database Information

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Report Date:	July 18, 2023
Report Title:	A Phase I and II Cultural Resources Assessment for the West Campus Upper Plateau Project, March Air Reserve Base, Riverside County, California
Submitted to:	March Joint Powers Authority 14205 Meridian Parkway, Suite 140 Riverside, California 92518
Prepared for:	Meridian Park, LLC c/o Lewis Retail Centers 1156 North Mountain Avenue Upland, California 91785
USGS Quadrangle:	Sections 15, 16, 17, 20, and 21, Township 2 South, Range 4 West of the San Bernardino Baseline and Meridian on the USGS *Riverside East, California* (7.5 minute) Quadrangle
Study Area:	Approximately 410-acre APE
Key Words:	USGS *Riverside East* Quadrangle (7.5 minute); Phases I and II archaeological assessment; bedrock milling sites; CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15; no NRHP- or CRHR-eligible sites within the APE; archaeological and Native American monitoring recommended.

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1.0 MANAGEMENT SUMMARY/ABSTRACT

In response to a request from Meridian Park, LLC, courtesy of Lewis Retail Centers, BFSA Environmental Services, a Perennial Company (BFSA), conducted an archaeological study of the approximately 370 acres proposed for development (Development Area) within the West Campus Upper Plateau Project. In addition, the archaeological study included an approximately 50-foot buffer around the Development Area, creating an approximately 410-acre Area of Potential Effect (APE). The project is located within the March Joint Powers Authority (MJPA) planning area and includes Assessor's Parcel Numbers (APNs) 276-120-01 and -07, 294-020-01, 297-080-01 to -04 and -16, 297-090-01 to -04 and -06 to -09, 297-100-84 and -93, and 297-110-36. The property is situated within Sections 15, 16, 17, 20, and 21, Township 2 South, Range 4 West, of the San Bernardino Baseline and Meridian on the 7.5-minute USGS *Riverside East*, *California* topographic quadrangle map. The project is located approximately 0.5 mile west of Interstate 215 (I-215) in the western portion of the MJPA planning area, west of the current terminus of Cactus Avenue, east and southeast of the Mission Grove neighborhood, south of an existing County of Riverside residential neighborhood, and north of the Orangecrest neighborhood in the city of Riverside. The Development Area covers approximately 370 acres of proposed commercial, industrial, and park development, as well as off-site improvements consisting of the extension of Cactus Avenue and Brown Street to provide access to the project.

MJPA, as the lead agency for the project, required this study in compliance with the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA). The survey investigations conducted by BFSA related to this project conformed to the NHPA, Section 106, the National Environmental Policy Act (NEPA) of 1969, CEQA, and MJPA guidelines. BFSA was retained to complete a Class I inventory of a one-mile radius around the project, a Phase I/Class III intensive pedestrian archaeological survey of the Area of Potential Effect (APE), and Phase II archaeological testing and evaluation of resources identified within the APE.

BFSA conducted the archaeological survey and records search review of the project on July 26 and 27, 2021. The records search from the Eastern Information Center (EIC) at the University of California at Riverside (UCR) identified 241 resources within one mile of the project, eight of which (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, and P-33-012662) were shown to be within the subject property. Within the APE, the current archaeological survey confirmed the locations of sites CA-RIV-4067, CA-RIV-5420 (some elements determined to be outside the APE), and CA-RIV-5421 and recorded nine previously unidentified prehistoric bedrock milling sites (Temp-2, Temp-3, and Temp-9 to Temp-15). Sites originally noted as Temp-1 and Temp-4 to Temp-8 were later found to be elements of recorded sites. The survey determined sites CA-RIV-4868, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 to be outside the APE, but in close proximity to the project boundaries. As a result, through consultation between MJPA, the Soboba Band of Luiseño Indians, and the

Pechanga Band of Luiseño Mission Indians, BFSA also included these resources as part of the current study. Site CA-RIV-5425 and isolate P-33-012662 could not be relocated (found again) within the APE during the current survey. The APE also contains the Cold War-era March ARB Weapons Storage Area (WSA), which was studied seperately from this archeaological study (Oz 2023). Detailed mapping and archaeological feature recordation occurred on June 6 and 7, 2022.

Because multiple archaeological sites will be impacted by the project, an Archaeological Test Plan (ATP) was prepared to determine if any significant archaeological sites will be impacted by the project (Garrison and Smith 2022). Consultation between representatives from the MJPA, the Soboba Band of Luiseño Indians, and the Pechanga Band of Luiseño Mission Indians resulted in an agreement regarding the scope and methods for the ATP, which were approved by MJPA in March 2023. Archaeological testing in compliance with the ATP occurred between March 20 and 31, 2023. The archaeological testing and evaluation within the APE included sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15. While Site CA-RIV-5420 contains features both within and outside of the APE, testing at this location primarily focused upon those within the APE. Due to their proximity to the APE, the areas of sites CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 containing milling features were marked and not tested to ensure all milling features would not be impacted by the project. Testing at these sites was instead conducted within adjacent areas, primarily within the APE, to confirm the site boundaries do not extend into the APE. At the request of the consulting tribes, seven additional exploratory shovel test pits (STPs) were excavated within the APE at locations of their choosing. In total, 75 STPs were excavated and no archaeological material was identified.

No testing occurred at CA-RIV-5421 since the site was previously tested and evaluated as not eligible for the National Register of Historic Places (NRHP) (McDonald and Giacomini 1996). Testing was also not conducted at CA-RIV-4068 since the site is clearly outside of the APE, but has been included in this study at the request of MJPA and the consulting tribes.

Based upon the records search, surveys, and testing program, sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, Temp-2, Temp-3, and Temp-9 to Temp-15 are not eligible for the California Register of Historical Resources (CRHR) or the NRHP. Sites CA-RIV-4068, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 were not evaluated for significance as they were found to have no elements within the APE.

Regardless of the evaluation of the prehistoric bedrock milling sites within the APE, the Soboba and Pechanga Bands consider all bedrock milling features as important resources. As such, it is recommended that efforts be made to either preserve the features within the APE in place, when feasible, or relocate them to open space. All features situated in close proximity to the APE that will not be affected by the project shall be clearly fenced off to ensure no unanticipated impacts occur during development. It is also recommended that all earthwork required for development be monitored by a qualified archaeologist and a Native American representative. The protocols to be followed for the monitoring program are presented in this report to ensure the proper and timely handling of any inadvertent archaeological discoveries. A

copy of this report will be permanently filed with the EIC at UCR. All notes, photographs, and other materials related to this project will be curated at the BFSA archaeological laboratory in Poway, California.

2.0 INTRODUCTION

In response to a request from Meridian Park, LLC, courtesy of Lewis Retail Centers, BFSA conducted an archaeological study of the approximately 370-acre West Campus Upper Plateau Project Development Area. The archaeological study was conducted in order to comply with the NHPA, Section 106, the NEPA of 1969, CEQA, and MJPA guidelines to assess potential impacts to significant cultural resources. The project is located in an area of moderate to high cultural resource sensitivity, as is suggested by known site density and predictive modeling. Sensitivity for cultural resources in a given area is usually indicated by known settlement patterns, which in the western Riverside County region is focused around environments with accessible food and water.

The project is identified as APNs 276-120-01 and -07, 294-020-01, 297-080-01 to -04 and -16, 297-090-01 to -04 and -06 to -09, 297-100-84 and -93, and 297-110-36. Overall, the project comprises approximately 818 acres within the MJPA planning area, approximately half a mile west of I-215, which includes approximately 370 acres for the Development Area, three acres for an existing public facility, and 445 acres for a conservation easement. More specifically, the project is located in the western portion of the MJPA planning area, west of the current terminus of Cactus Avenue, east and south of the Mission Grove neighborhood, and north of the Orangecrest neighborhood in the city of Riverside (Figure 2.0–1). The project is situated within Sections 15, 16, 17, 20, and 21, Township 2 South, Range 4 West, of the San Bernardino Baseline and Meridian, on the USGS 7.5-minute *Riverside East*, *California* topographic quadrangle map (Figure 2.0–2). The Development Area covers approximately 370 acres of proposed commercial, industrial, and park development, as well as off-site improvements for the extension of Cactus Avenue and Brown Street to provide access to the project. In addition, the archaeological study included an approximately 50-foot buffer around the Development Area, creating an approximately 410-acre APE (Figures 2.0–3).

Principal Investigator Brian F. Smith directed the archaeological study of the project. Project Archaeologist Andrew Garrison, Senior Field Archaeologist Clarence Hoff, and field archaeologists James Shrieve and David Grabski conducted the field surveys and field archaeologists James Shrieve, Vanessa Michaelsen, Alex Brill, Sabrina Corcoran, Wyatt Halbach, John Barbier, and Elizabeth Vasquez conducted the test excavations. Andrew Garrison prepared the technical report. Andrew Garrison and Emily Soong created the report graphics and Elena Goralogia conducted technical editing and distribution of the report. Qualifications of key personnel are provided in Appendix I.

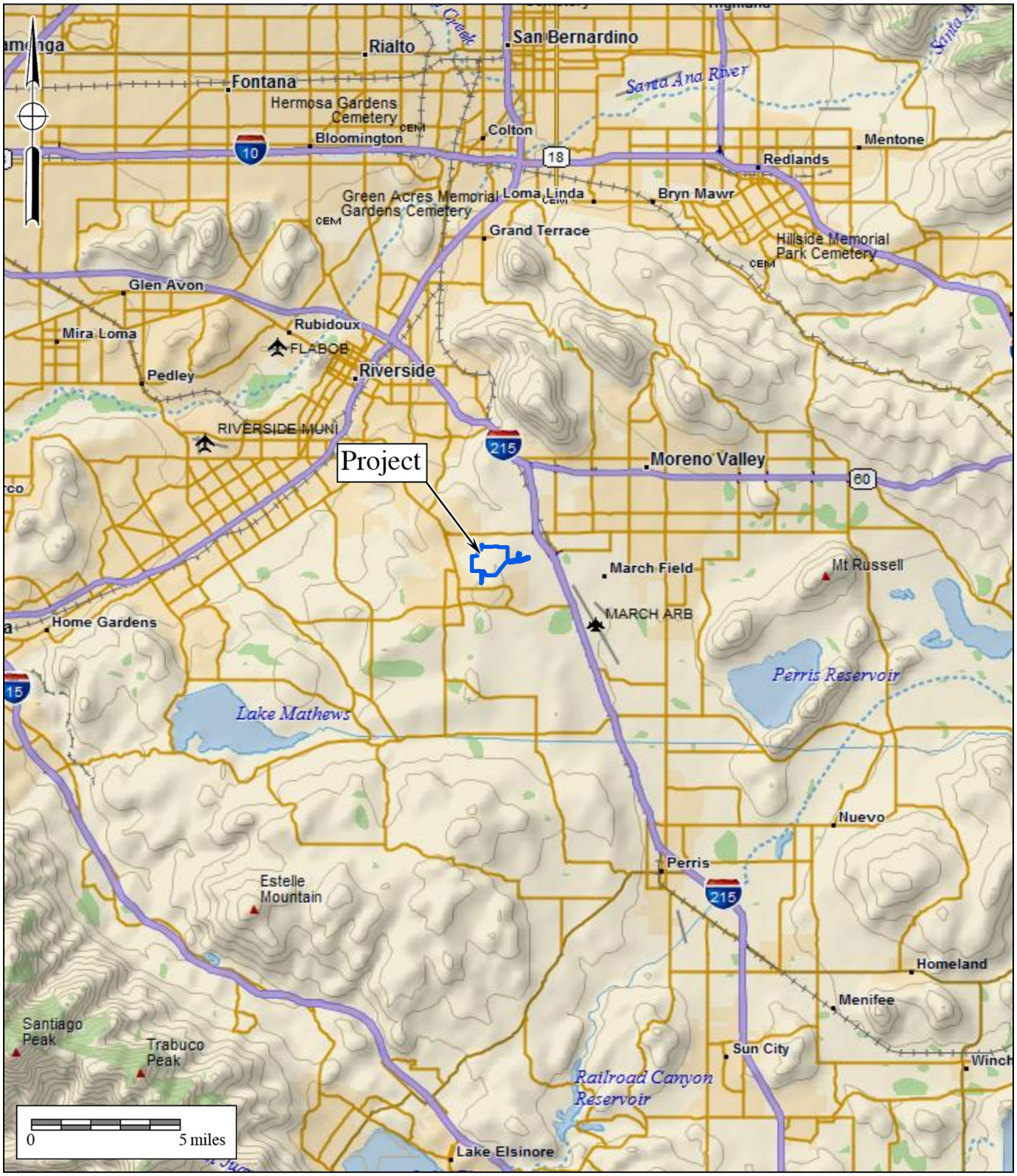

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Figure 2.0–1

General Location Map

The West Campus Upper Plateau Project

DeLorme (1:250,000)

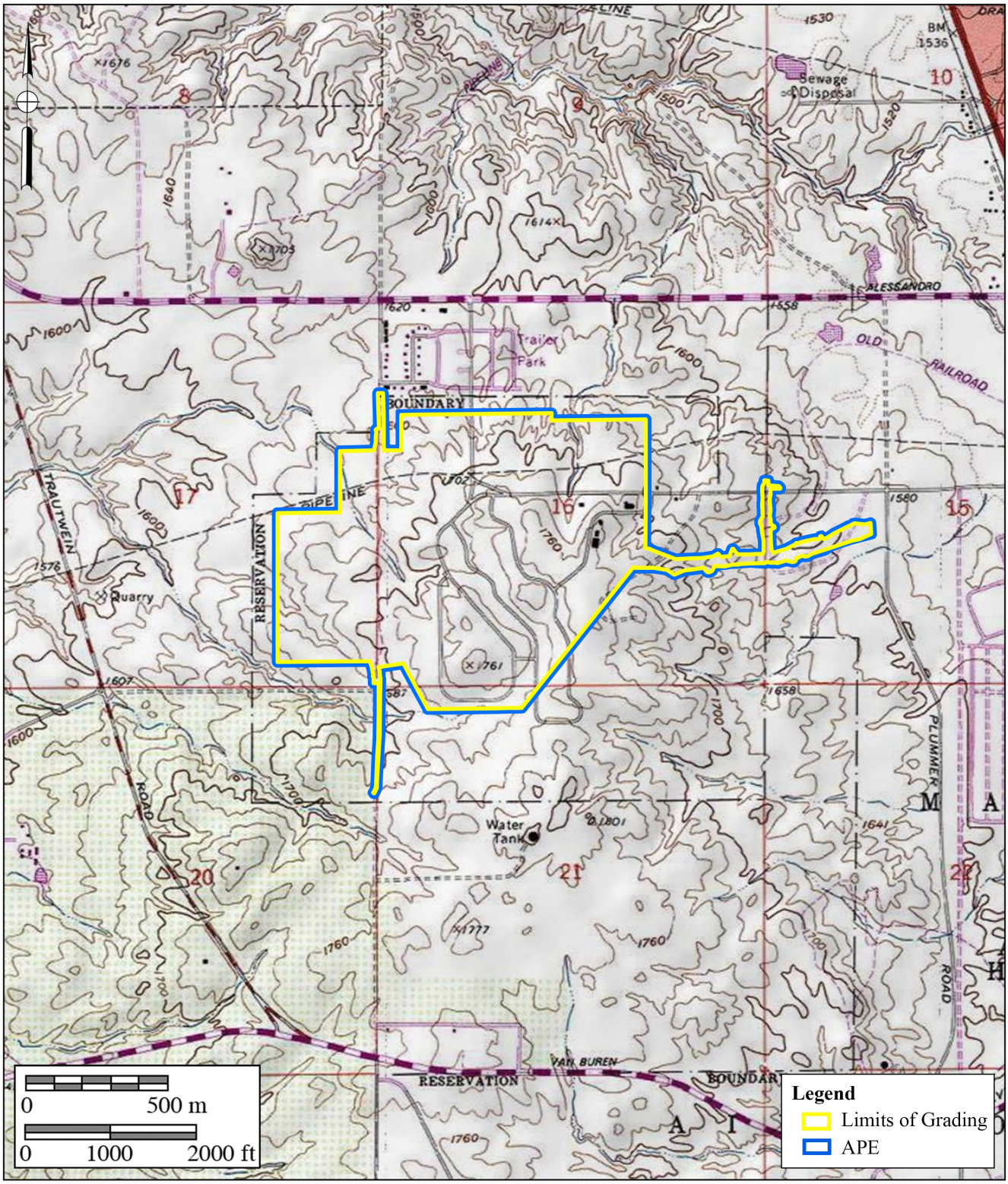

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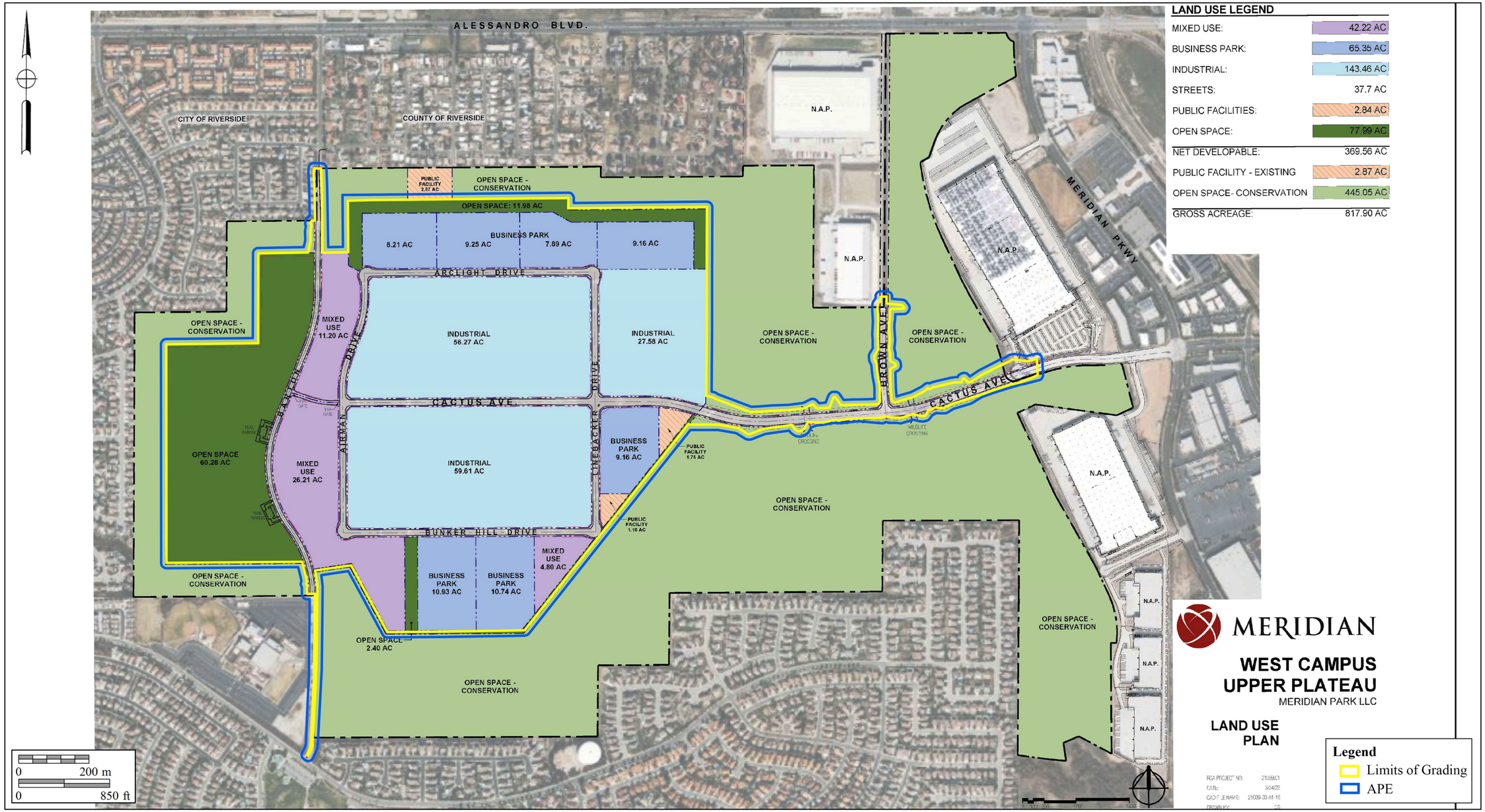
Figure 2.0–2
Project Location Map

The West Campus Upper Plateau Project

USGS *Riverside East* Quadrangle (7.5-minute series)



LAND USE LEGEND

MIXED USE:	42.22 AC
BUSINESS PARK:	65.35 AC
INDUSTRIAL:	143.46 AC
STREETS:	37.7 AC
PUBLIC FACILITIES:	2.84 AC
OPEN SPACE:	77.99 AC
NET DEVELOPABLE:	369.56 AC
PUBLIC FACILITY - EXISTING	2.87 AC
OPEN SPACE- CONSERVATION	445.05 AC
GROSS ACREAGE:	817.90 AC

MERIDIAN

WEST CAMPUS UPPER PLATEAU

MERIDIAN PARK LLC

LAND USE PLAN

Legend

- Limits of Grading
- APE

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Figure 2.0–3

Project Development Map

The West Campus Upper Plateau Project

3.0 PROJECT SETTING

The project setting includes the natural, physical, geological, and biological contexts of the proposed project, as well as the cultural setting of prehistoric and historic human activities in the general area. The following sections discuss both the environmental and cultural settings at the subject property, the relationship between the two, and the relevance of that relationship to the project.

3.1 Environmental Setting

The project APE is located in the western portion of the MJPA planning area, west of March ARB. The APE is dominated by the Upper Plateau, which is surrounded by low, rolling hills separated by seasonal drainages. The Development Area is partially developed with the remnants of the WSA. The project is surrounded by residential uses to the northwest, west, and south, the Meridian West Campus Lower Plateau development area within the MJPA planning area to the east, and two new industrial Exeter buildings (in Riverside County) to the east and north.

The APE lies within the Peninsular Ranges Geologic Province of southern California. The mountain range, which lies in a northwest to southeast trend through the county, extends some 1,000 miles from the Raymond-Malibu Fault Zone in western Los Angeles County to the southern tip of Baja California. Regionally, the APE is within the Perris Block, a fault-bounded crustal block bounded on the west by the Elsinore fault zone and on the east by the San Jacinto fault zone (Morton and Cox 2001). The geology mapped at the subject property is mostly underlain by the Cretaceous-aged Val Verde tonalite, a type of crystalline plutonic rock that contains exposures of quartz veins (Morton and Cox 2001). Scattered, linear outcrops of Cretaceous granitic dikes, Paleozoic biotite schist, and mixed-provenance crystalline rocks of pre-Cenozoic age are surrounded by the Val Verde tonalite within the subject property. At the far eastern portion of the project, lower Pleistocene (approximately 1.8 million- to perhaps 200,000- to 300,000-year-old), sandy, very old alluvial fan deposits are mapped. The specific soil types found within the subject property are primarily categorized as Fallbrook rocky sandy loam, Vista coarse sandy loam, Monserate sandy loam, and Cieneba rocky sandy loam (NRCS 2019).

Vegetation found within the APE is dominated by non-native weeds and grasses with pockets of sage scrub and some limited riparian habitat near and within the seasonal drainages. During the prehistoric period, vegetation near the APE provided sufficient food resources to support prehistoric human occupants. Animals that inhabited the area during prehistoric times included mammals such as rabbits, squirrels, gophers, mice, rats, deer, and coyotes, in addition to a variety of reptiles and amphibians. The natural setting of the project area during prehistoric occupation offered a rich nutritional resource base. Fresh water was likely obtainable from surrounding drainages and springs.

3.2 Cultural Setting – Archaeological Perspectives

The archaeological perspective seeks to reconstruct past cultures based upon the material remains left behind. This is done using a range of scientific methodologies, almost all of which draw from evolutionary theory as the base framework. Archaeology allows one to look deeper into history or prehistory to see where the beginnings of ideas manifest via analysis of material culture, allowing for the understanding of outside forces that shape social change. Thus, the archaeological perspective allows one to better understand the consequences of the history of a given culture upon modern cultures. Archaeologists seek to understand the effects of past contexts of a given culture on *this* moment in time, not culture in context *in* the moment.

Despite this, a distinction exists between "emic" and "etic" ways of understanding material culture, prehistoric lifeways, and cultural phenomena in general (Harris 1991). While "emic" perspectives serve the subjective ways in which things are perceived and interpreted by the participants within a culture, "etic" perspectives are those of an outsider looking in hoping to attain a more scientific or "objective" understanding of the given phenomena. Archaeologists, by definition, will almost always serve an etic perspective as a result of the very nature of their work. As indicated by Laylander et al. (2014), it has sometimes been suggested that etic understanding, and therefore an archaeological understanding, is an imperfect and potentially ethnocentric attempt to arrive at emic understanding. In contrast to this, however, an etic understanding of material culture, cultural phenomena, and prehistoric lifeways can address significant dimensions of culture that lie entirely beyond the understanding or interest of those solely utilizing an emic perspective. As Harris (1991:20) appropriately points out, "Etic studies often involve the measurement and juxtaposition of activities and events that native informants find inappropriate or meaningless." This is also likely true of archaeological comparisons and juxtapositions of material culture. However, culture as a whole does not occur in a vacuum and is the result of several millennia of choices and consequences influencing everything from technology, to religions, to institutions. Archaeology allows for the ability to not only see what came before, but to see how those choices, changes, and consequences affect the present. Where possible, archaeology should seek to address both emic and etic understandings to the extent that they may be recoverable from the archaeological record as manifestations of patterned human behavior (Laylander et al. 2014).

To that point, the culture history offered herein is primarily based upon archaeological (etic) and ethnographic (partially emic and partially etic) information. It is understood that the ethnographic record and early archaeological records were incompletely and imperfectly collected. In addition, in most cases, more than a century of intensive cultural change and cultural evolution had elapsed since the terminus of the prehistoric period. Coupled with the centuries and millennia of prehistoric change separating the "ethnographic present" from the prehistoric past, this has affected the emic and etic understandings of prehistoric cultural settings. Regardless, there remains a need to present the changing cultural setting within the region under investigation. As a result, both archaeological and Native American perspectives are offered when possible.

3.2.1 Introduction

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Takic groups are the three general cultural periods represented in Riverside County. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component present in the Riverside County area was primarily represented by the Cahuilla, Gabrielino, and Luiseño Indians.

Absolute chronological information, where possible, will be incorporated into this archaeological discussion to examine the effectiveness of continuing to interchangeably use these terms. Reference will be made to the geological framework that divides the archaeologically-based culture chronology of the area into four segments: the late Pleistocene (20,000 to 10,000 years before the present [YBP]), the early Holocene (10,000 to 6,650 YBP), the middle Holocene (6,650 to 3,350 YBP), and the late Holocene (3,350 to 200 YBP). Although the geological framework is utilized to provide a loose chronology, the presented context attempts to narrow the timeframes based upon the generally accepted cultural chronology for the area, and may not always line up with the geologic patterns.

3.2.2 Paleo Indian Period (Late Pleistocene: 11,500 to circa 10,000 YBP)

Archaeologically, the Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. They likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995).

3.2.3 Archaic Period (Early and Middle Holocene: circa 10,000 to 1,300 YBP)

Archaeological data indicates that between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the coast (Warren and True 1961). This complex is locally known as the La Jolla Complex (Rogers 1939; Moriarty 1966), which is regionally associated with the Encinitas Tradition (Warren 1968) and shares cultural

components with the widespread Milling Stone Horizon (Wallace 1955). The coastal expression of this complex appeared in southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP.

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources, cobble-based tools, and flexed human burials (Shumway et al. 1961; Smith and Moriarty 1985). While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period (Koerper et al. 1986). Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads.

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned (Gallegos 1987, 1992). The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat. This is a well-documented situation at Batiquitos Lagoon, where over a two-thousand-year period, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (*Argopecten* sp.) to species tolerant of tidal flat conditions (*Chione* sp.), indicating water depth and temperature changes (Miller 1966; Gallegos 1987).

This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons) (Byrd 1998). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation (Byrd 1998). Peñasquitos Lagoon exhibits dates as late as 2,355 YBP (Smith and Moriarty 1985) and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon (Gallegos and Kyle 1988). Additionally, data from several drainages at Marine Corps Base Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time (Byrd 1998).

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed "Pauma Complex" (True 1958; Warren et al. 1961; Meighan 1954). By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex (True 1980), it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations (Raven-Jennings et al. 1996). Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex.

More recent work by Sutton has identified a more localized complex known as the Greven Knoll Complex. The Greven Knoll Complex is a redefined northern inland expression of the Encinitas Tradition first put forth by Mark Sutton and Jill Gardner (2010). Sutton and Gardner (2010:25) state that "[t]he early millingstone archaeological record in the northern portion of the interior southern California was not formally named but was often referred to as 'Inland Millingstone,' 'Encinitas,' or even 'Topanga.'" Therefore, they proposed that all expressions of the inland Milling Stone in southern California north of San Diego County be grouped together in the Greven Knoll Complex.

The Greven Knoll Complex, as postulated by Sutton and Gardner (2010), is broken into three phases and obtained its name from the type-site Greven Knoll located in Yucaipa, California. Presently, the Greven Knoll Site is part of the Yukaipa't Site (SBR-1000) and was combined with the adjacent Simpson Site. Excavations at Greven Knoll recovered manos, metates, projectile points, discoidal cogged stones, and a flexed inhumation with a possible cremation (Kowta 1969:39). It is believed that the Greven Knoll Site was occupied between 5,000 and 3,500 YBP. The Simpson Site contained mortars, pestles, side-notched points, and stone and shell beads. Based upon the data recovered at these sites, Kowta (1969:39) suggested that "coastal Milling Stone Complexes extended to and interdigitated with the desert Pinto Basin Complex in the vicinity of the Cajon Pass."

Phase I of the Greven Knoll Complex is generally dominated by the presence of manos and metates, core tools, hammerstones, large dart points, flexed inhumations, and occasional cremations. Mortars and pestles are absent from this early phase, and the subsistence economy emphasized hunting. Sutton and Gardner (2010:26) propose that the similarity of the material culture of Greven Knoll Phase I and that found in the Mojave Desert at Pinto Period sites indicates that the Greven Knoll Complex was influenced by neighbors to the north at that time. Accordingly, Sutton and Gardner (2010) believe that Greven Knoll Phase I may have appeared as early as 9,400

YBP and lasted until about 4,000 YBP.

Greven Knoll Phase II is associated with a period between 4,000 and 3,000 YBP. Artifacts common to Greven Knoll Phase II include manos and metates, Elko points, core tools, and discoidals. Pestles and mortars are present; however, they are only represented in small numbers. Finally, there is an emphasis upon hunting and gathering for subsistence (Sutton and Gardner 2010:8).

Greven Knoll Phase III includes manos, metates, Elko points, scraper planes, choppers, hammerstones, and discoidals. Again, small numbers of mortars and pestles are present. Greven Knoll Phase III spans from approximately 3,000 to 1,000 YBP and shows a reliance upon seeds and yucca. Hunting is still important, but bones seem to have been processed to obtain bone grease more often in this later phase (Sutton and Gardner 2010:8).

The shifts in food processing technologies during each of these phases indicate a change in subsistence strategies; although people were still hunting for large game, plant-based foods eventually became the primary dietary resource (Sutton 2011a). Sutton's (2011b) argument posits that the development of mortars and pestles during the middle Holocene can be attributed to the year-round exploitation of acorns as a main dietary provision. Additionally, the warmer and drier climate may have been responsible for groups from the east moving toward coastal populations, which is archaeologically represented by the interchange of coastal and eastern cultural traits (Sutton 2011a).

3.2.4 Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Many Luiseño hold the world view that, as a population, they were created in southern California. Archaeological and anthropological data, however, proposes a scientific/archaeological perspective, suggesting that at approximately 1,350 YBP, Takic-speaking groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. An analysis of the Takic expansion by Sutton (2009) indicates that inland southern California was occupied by "proto-Yuman" populations before 1,000 YBP. The comprehensive, multi-phase model offered by Sutton (2009) employs linguistic, ethnographic, archaeological, and biological data to solidify a reasonable argument for population replacement of Takic groups to the north by Penutians (Laylander 1985). As a result, it is believed that Takic expansion occurred starting circa 3,500 YBP moving toward southern California, with the Gabrielino language diffusing south into neighboring Yuman (Hokan) groups around 1,500 to 1,000 YBP, possibly resulting in the Luiseño dialect.

Based upon Sutton's model, the final Takic expansion would not have occurred until circa 1,000 YBP, resulting in Vanyume, Serrano, Cahuilla, and Cupeño dialects. The model suggests that the Luiseño did not simply replace Hokan speakers, but were rather a northern San Diego County/southern Riverside County Yuman population who adopted the Takic language. The Luiseño called themselves *'Atáaxum,* which means "people," and traditional songs refer to the people as Payómkawichum, "people of the west" (DuBois 1908). Further, the Pechanga Band

notes that the *'Atáaxum* recognize that the world was created in the area now known as Temecula, and the *'Atáaxum* People have been in this area since the beginning of time, rather than migrating into the area. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the more widespread use of ceramic pottery. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead.

3.2.5 Protohistoric Period (Late Holocene: circa 1542 to circa 1769)

The Protohistoric Period is transitionary and overlaps the end of the Late Prehistoric Period. Generally, the Protohistoric Period in California can be attributed to the time between early European exploration and the Spanish efforts toward colonization. Ethnohistoric and ethnographic evidence indicates that three Takic-speaking groups occupied portions of Riverside County: the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre- and proto-historic times are difficult to place, but the project is located well within the borders of ethnographic Luiseño territory with the closest neighboring group likely being the Cahuilla. The Luiseño were a seasonal hunting and gathering people with cultural elements that were very distinct from Archaic Period peoples. These distinctions include cremation of the dead, the use of the bow and arrow, and exploitation of the acorn as a main food staple (Moratto 1984). Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, were also sources of nourishment for Luiseño groups. Elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts, as well as steatite from the Channel Islands.

According to Charles Handley (1967), the primary settlements of Late Prehistoric Luiseño Indians in the San Jacinto Plain were represented by Ivah and Soboba near Soboba Springs, Jusipah near the town of San Jacinto, Ararah in Webster's Canyon en route to Idyllwild, Pahsitha near Big Springs Ranch southeast of Hemet, and Corova in Castillo Canyon. These locations share features such as the availability of food and water resources. Features of this land use include petroglyphs and pictographs, as well as widespread milling, which is evident in bedrock and portable implements. Ethnographic data for the Luiseño and neighboring Cahuilla is presented below.

Luiseño: An Archaeological and Ethnographic Perspective

As noted by Bean and Shipek (1978), when contacted by the Spanish in the sixteenth

century, the Luiseño occupied a territory bounded on the west by the Pacific Ocean, on the east by the Peninsular Ranges mountains at San Jacinto (including Palomar Mountain to the south and Santiago Peak to the north), on the south by Agua Hedionda Lagoon, and on the north by Aliso Creek in present-day San Juan Capistrano. However, the Pechanga Band of Luiseño Indians have indicated that their territory spanned from the Channel Islands on the west, Lake Henshaw on the east, the Santa Ana River to the south, and Box Springs Mountains on the north. The Luiseño differed from their neighboring Takic speakers in having an extensive proliferation of social statuses, a system of ruling families that provided ethnic cohesion within the territory, a distinct worldview, and an elaborate religion that included the creation of sacred sand paintings depicting the deity Chingichngish (Bean and Shipek 1978; Kroeber 1976).

Subsistence and Settlement

The Luiseño occupied sedentary villages most often located in sheltered areas in valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were located near water sources to facilitate acorn leaching and in areas that offered thermal and defensive protection. Villages were comprised of areas that were publicly and privately (by family) owned. Publicly owned areas included trails, temporary campsites, hunting areas, and quarry sites. Inland groups had fishing and gathering sites along the coast that were intensively used from January to March when inland food resources were scarce. During October and November, most of the village would relocate to mountain oak groves to harvest acorns. The Luiseño remained at village sites for the remainder of the year, where food resources were within a day's travel (Bean and Shipek 1978; Kroeber 1976).

The most important food source for the Luiseño was the acorn, six different species of which were used (*Quercus californica, Quercus agrifolia, Quercus chrysolepis, Quercus dumosa, Quercus engelmannii,* and *Quercus wislizenii*). Seeds, particularly grasses, flowering plants, and mints, were also heavily exploited. Seed-bearing species were encouraged through controlled burns, which were conducted at least every third year. A variety of other stems, leaves, shoots, bulbs, roots, and fruits were also collected. Hunting augmented this vegetal diet. Animal species taken included deer, rabbit, hare, woodrat, ground squirrel, antelope, quail, duck, freshwater fish from streams, marine mammals, and other sea creatures such as fish, crustaceans, and mollusks (particularly abalone, or *Haliotis* sp.). In addition, a variety of snakes, small birds, and rodents were eaten (Bean and Shipek 1978; Kroeber 1976).

Social Organization

Social groups within the Luiseño nation consisted of patrilinear families or clans, which were politically and economically autonomous. Several clans comprised a religious party, or nota, which was headed by a chief who organized ceremonies and controlled economics and warfare. The chief had assistants who specialized in particular aspects of ceremonial or environmental knowledge and who, with the chief, were part of a religion-based social group with special access

to supernatural power, particularly that of Chingichngish. The positions of chief and assistants were hereditary, and the complexity and multiplicity of these specialists' roles likely increased in coastal and larger inland villages (Bean and Shipek 1978; Kroeber 1976; Strong 1929).

Marriages were arranged by the parents, often made to forge alliances between lineages. Useful alliances included those between groups of differing ecological niches and those that resulted in territorial expansion. Residence was patrilocal (Bean and Shipek 1978; Kroeber 1976). Women were primarily responsible for plant gathering and men principally hunted, but at times, particularly during acorn and marine mollusk harvests, there was no division of labor. Elderly women cared for children and elderly men participated in rituals, ceremonies, and political affairs. They were also responsible for manufacturing hunting and ritual implements. Children were taught subsistence skills at the earliest age possible (Bean and Shipek 1978; Kroeber 1976).

Material Culture

House structures were conical, partially subterranean, and thatched with reeds, brush, or bark. Ramadas were rectangular, protected workplaces for domestic chores such as cooking. Ceremonial sweathouses were important in purification rituals; these were round and partially subterranean thatched structures covered with a layer of mud. Another ceremonial structure was the wámkis (located in the center of the village, serving as the place of rituals), where sand paintings and other rituals associated with the Chingichngish religious group were performed (Bean and Shipek 1978; Kroeber 1976).

Clothing was minimal; women wore a cedar-bark and netted twine double apron and men wore a waist cord. In cold weather, cloaks or robes of rabbit fur, deerskin, or sea otter fur were worn by both sexes. Footwear included deerskin moccasins and sandals fashioned from yucca fibers. Adornments included bead necklaces and pendants made of bone, clay, stone, shell, bear claw, mica, deer hooves, and abalone shell. Men wore ear and nose piercings made from cane or bone, which were sometimes decorated with beads. Other adornments were commonly decorated with semiprecious stones including quartz, topaz, garnet, opal, opalite, agate, and jasper (Bean and Shipek 1978; Kroeber 1976).

Hunting implements included the bow and arrow. Arrows were tipped with either a carved, fire-hardened wood tip or a lithic point, usually fashioned from locally available metavolcanic material or quartz. Throwing sticks fashioned from wood were used in hunting small game, while deer head decoys were used during deer hunts. Coastal groups fashioned dugout canoes for nearshore fishing and harvested fish with seines, nets, traps, and hooks made of bone or abalone shell (Bean and Shipek 1978; Kroeber 1976).

The Luiseño had a well-developed basket industry. Baskets were used in resource gathering, food preparation, storage, and food serving. Ceramic containers were shaped by paddle and anvil and fired in shallow, open pits to be used for food storage, cooking, and serving. Other utensils included wood implements, steatite bowls, and ground stone manos, metates, mortars, and pestles (Bean and Shipek 1978; Kroeber 1976). Additional tools such as knives, scrapers,

choppers, awls, and drills were also used. Shamanistic items include soapstone or clay smoking pipes and crystals made of quartz or tourmaline (Bean and Shipek 1978; Kroeber 1976).

Cahuilla: An Archaeological and Ethnographic Perspective

At the time of Spanish contact in the sixteenth century, the Cahuilla occupied territory that included the San Bernardino Mountains, Orocopia Mountain, and the Chocolate Mountains to the west, Salton Sea and Borrego Springs to the south, Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north. The Cahuilla are a Takic-speaking people closely related to their Gabrielino and Luiseño neighbors, although relations with the Gabrielino were more intense than with the Luiseño. They differ from the Luiseño and Gabrielino in that their religion is more similar to the Mohave tribes of the eastern deserts than the Chingichngish religious group of the Luiseño and Gabrielino. The following is a summary of ethnographic data regarding this group (Bean 1978; Kroeber 1976).

Subsistence and Settlement

Cahuilla villages were typically permanent and located on low terraces within canyons in proximity to water sources. These locations proved to be rich in food resources and also afforded protection from prevailing winds. Villages had areas that were publicly owned and areas that were privately owned by clans, families, or individuals. Each village was associated with a particular lineage and series of sacred sites that included unique petroglyphs and pictographs. Villages were occupied throughout the year; however, during a several-week period in the fall, most of the village members relocated to mountain oak groves to take part in acorn harvesting (Bean 1978; Kroeber 1976).

The Cahuilla's use of plant resources is well documented. Plant foods harvested by the Cahuilla included valley oak acorns and single-leaf pinyon pine nuts. Other important plant species included bean and screw mesquite, agave, Mohave yucca, cacti, palm, chia, quail brush, yellowray goldfield, goosefoot, manzanita, catsclaw, desert lily, mariposa lily, and a number of other species such as grass seed. A number of agricultural domesticates were acquired from the Colorado River tribes including corn, bean, squash, and melon grown in limited amounts. Animal species taken included deer, bighorn sheep, pronghorn antelope, rabbit, hare, rat, quail, dove, duck, roadrunner, and a variety of rodents, reptiles, fish, and insects (Bean 1978; Kroeber 1976).

Social Organization

The Cahuilla was not a political nation, but rather a cultural nationality with a common language. Two non-political, non-territorial patrimoieties were recognized: the Wildcats (túktem) and the Coyotes (?ístam). Lineage and kinship were memorized at a young age among the Cahuilla, providing a backdrop for political relationships. Clans were comprised of three to 10 lineages; each lineage owned a village site and specific resource areas. Lineages within a clan cooperated in subsistence activities, defense, and rituals (Bean 1978; Kroeber 1976).

A system of ceremonial hierarchy operated within each lineage. The hierarchy included the lineage leader, who was responsible for leading subsistence activities, guarding the sacred bundle, and negotiating with other lineage leaders in matters concerning land use, boundary disputes, marriage arrangements, trade, warfare, and ceremonies. The ceremonial assistant to the lineage leader was responsible for organizing ceremonies. A ceremonial singer possessed and performed songs at rituals and trained assistant singers. The shaman cured illnesses through supernatural powers, controlled natural phenomena, and was the guardian of ceremonies, keeping evil spirits away. The diviner was responsible for finding lost objects, telling future events, and locating game and other food resources. Doctors were usually older women who cured various ailments and illnesses with their knowledge of medicinal herbs. Finally, certain Cahuilla specialized as traders, who ranged as far west as Santa Catalina and as far east as the Gila River (Bean 1978; Kroeber 1976).

Marriages were arranged by parents from opposite moieties. When a child was born, an alliance formed between the families, which included frequent reciprocal exchanges. The Cahuilla kinship system extended to relatives within five generations. Important economic decisions, primarily the distribution of goods, operated within this kinship system (Bean 1978; Kroeber 1976).

Material Culture

Cahuilla houses were dome-shaped or rectangular, thatched structures. The home of the lineage leader was the largest, located near the ceremonial house with the best access to water. Other structures within the village included the men's sweathouse and granaries (Bean 1978; Kroeber 1976).

Cahuilla clothing, like other groups in the area, was minimal. Men typically wore a loincloth and sandals; women wore skirts made from mesquite bark, animal skin, or tules. Babies wore mesquite bark diapers. Rabbit skin cloaks were worn in cold weather (Bean 1978; Kroeber 1976).

Hunting implements included the bow and arrow, throwing sticks, and clubs. Grinding tools used in food processing included manos, metates, and wood mortars. The Cahuilla were known to use long grinding implements made from wood to process mesquite beans; the mortar was typically a hollowed log buried in the ground. Other tools included steatite arrow shaft straighteners (Bean 1978; Kroeber 1976).

Baskets were made from rush, deer grass, and skunkbrush. Different species and leaves were chosen for different colors in the basket design. Coiled-ware baskets were either flat (for plates, trays, or winnowing), bowl-shaped (for food serving), deep, inverted, and cone-shaped (for transporting), or rounded and flat-bottomed for storing utensils and personal items (Bean 1978; Kroeber 1976).

Cahuilla pottery was made from a thin, red-colored ceramic ware that was often painted and incised. Four basic vessel types are known for the Cahuilla: small-mouthed jars, cooking pots,

bowls, and dishes. Additionally, smoking pipes and flutes were fashioned from ceramic (Bean 1978; Kroeber 1976).

3.2.6 Ethnohistoric Period (1769 to Present)

Traditionally, the history of the state of California has been divided into three general periods: the Spanish Period (1769 to 1821), the Mexican Period (1822 to 1846), and the American Period (1848 to present) (Caughey 1970). The American Period is often further subdivided into additional phases: the nineteenth century (1848 to 1900), the early twentieth century (1900 to 1950), and the Modern Period (1950 to present). From an archaeological standpoint, all of these phases can be referred to together as the Ethnohistoric Period. This provides a valuable tool for archaeologists, as ethnohistory is directly concerned with the study of indigenous or non-Western peoples from a combined historical/anthropological viewpoint, which employs written documents, oral narrative, material culture, and ethnographic data for analysis.

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Viscaíno had the most lasting effect upon the nomenclature of the coast. Many of his place names have survived, whereas practically every one of the names created by Cabrillo have faded from use. For instance, Cabrillo named the first (now) United States port he stopped at "San Miguel"; 60 years later, Viscaíno changed it to "San Diego" (Rolle 1969). The early European voyages observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals (Bean and Shipek 1978; Kroeber 1976).

The historic background of the project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). As a result, by the late eighteenth century, a large portion of southern California was overseen by Mission San Luis Rey (San Diego County), Mission San Juan Capistrano (Orange County), and Mission San Gabriel (Los Angeles County), who began colonization the region and surrounding areas (Chapman 1921).

Up until this time, the only known way to feasibly travel from Sonora to Alta California was by sea. In 1774, Juan Bautista de Anza, an army captain at Tubac, requested and was given permission by the governor of the Mexican State of Sonora to establish an overland route from Sonora to Monterey (Chapman 1921). In doing so, Juan Bautista de Anza passed through Riverside County and described the area in writing for the first time (Caughey 1970; Chapman 1921). In 1797, Father Presidente Lausen (of Mission San Diego de Alcalá), Father Norberto de Santiago, and Corporal Pedro Lisalde (of Mission San Juan Capistrano) led an expedition through southwestern Riverside County in search of a new mission site to establish a presence between

San Diego and San Juan Capistrano (Engelhardt 1921). Their efforts ultimately resulted in the establishment of Mission San Luis Rey in Oceanside, California.

Each mission gained power through the support of a large, subjugated Native American workforce. As the missions grew, livestock holdings increased and became increasingly vulnerable to theft. In order to protect their interests, the southern California missions began to expand inland to try and provide additional security (Beattie and Beattie 1939; Caughey 1970). In order to meet their needs, the Spaniards embarked on a formal expedition in 1806 to find potential locations within what is now the San Bernardino Valley. As a result, by 1810, Father Francisco Dumetz of Mission San Gabriel had succeeded in establishing a religious site, or capilla, at a Cahuilla rancheria called Guachama (Beattie and Beattie 1939). San Bernardino Valley received its name from this site, which was dedicated to San Bernardino de Siena by Father Dumetz. The Guachama rancheria was located in present-day Bryn Mawr in San Bernardino County.

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1939). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, who in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1976).

Mexico achieved independence from Spain in 1822 and became a federal republic in 1824. As a result, both Baja and Alta California became classified as territories (Rolle 1969). Shortly thereafter, the Mexican Republic sought to grant large tracts of private land to its citizens to begin to encourage immigration to California and to establish its presence in the region. Part of the establishment of power and control included the desecularization of the missions circa 1832. These same missions were also located on some of the most fertile land in California and, as a result, were considered highly valuable. The resulting land grants, known as "ranchos," covered expansive portions of California and by 1846, more than 600 land grants had been issued by the Mexican government. Rancho Jurupa was the first rancho to be established and was issued to Juan Bandini in 1838. Although Bandini primarily resided in San Diego, Rancho Jurupa was located in what is now Riverside County (Pourade 1963). A review of Riverside County place names quickly illustrates that many of the ranchos in Riverside County lent their names to present-day locations, including Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo (Gunther 1984). As was typical of many ranchos, these were all located in the valley environments within western Riverside County.

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately-owned ranchos, most often as slave labor. In light of the brutal ranchos, the degree to which Native Americans had become dependent upon the mission system is evident when, in 1838, a group of Native

Americans from Mission San Luis Rey petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

> We have suffered incalculable losses, for some of which we are in part to be blamed for because many of us have abandoned the Mission … We plead and beseech you … to grant us a Rev. Father for this place. We have been accustomed to the Rev. Fathers and to their manner of managing the duties. We labored under their intelligent directions, and we were obedient to the Fathers according to the regulations, because we considered it as good for us. (Brigandi 1998:21)

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The Mexican and American ranchers did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976).

By 1846, tensions between the United States and Mexico had escalated to the point of war (Rolle 1969). In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure (Rolle 1969; Caughey 1970). By 1850, California had become a state and was eventually divided into 27 separate counties. While a much larger population was now settling in California, this was primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range (Rolle 1969; Caughey 1970). During this time, southern California grew at a much slower pace than northern California and was still dominated by the cattle industry that was established during the earlier rancho period. However, by 1859, the first United States Post Office in what would eventually become Riverside County was set up at John Magee's store on the Temecula Rancho (Gunther 1984).

During the same decade, circa 1852, the Native Americans of southern Riverside County, including the Luiseño and Cahuilla, thought they had signed a treaty resulting in their ownership of all lands from Temecula to Aguanga east to the desert, including the San Jacinto Valley and the San Gorgonio Pass. The Temecula Treaty also included food and clothing provisions for the Native Americans. However, Congress never ratified these treaties, and the promise of one large reservation was rescinded (Brigandi 1998).

With the completion of the Southern Pacific Railroad in 1869, southern California saw its first major population expansion. The population boom continued circa 1874 with the completion of connections between the Southern Pacific Railroad in Sacramento to the transcontinental Central Pacific Railroad in Los Angeles (Rolle 1969; Caughey 1970). The population influx brought farmers, land speculators, and prospective developers to the region. As the Jurupa area became more and more populated, circa 1870, Judge John Wesley North and a group of associates founded the city of Riverside on part of the former rancho.

Although the first orange trees were planted in Riverside County circa 1871, it was not until a few years later when a small number of Brazilian navel orange trees were established that the citrus industry truly began in the region (Patterson 1971). The Brazilian navel orange was well suited to the climate of Riverside County and thrived with assistance from several extensive irrigation projects. At the close of 1882, an estimated half a million citrus trees were present in California. It is estimated that nearly half of that population was in Riverside County. Population growth and 1880s tax revenue from the booming citrus industry prompted the official formation of Riverside County in 1893 out of portions of what was once San Bernardino and San Diego counties (Patterson 1971).

Shortly thereafter, with the start of World War I, the United States began to develop a military presence in Riverside County with the construction of what would become March AFB. During World War II, Camp Haan and Camp Anza were constructed in what is now the current location of Riverside National Cemetery. In the decades that followed, populations spread throughout the county into Lake Elsinore, Corona, Norco, Murrieta, and Wildomar. However, a significant portion of the county remained largely agricultural well into the 1970s. Following the 1970s, Riverside saw a period of dramatic population increase as the result of new development, more than doubling the population of the county with a population of over 1.3 million residents (Patterson 1971).

3.2.7 General History of the City of Riverside

Located near the city of Riverside, the history of the subject property is tied to the development of the city. The city of Riverside was officially formed in 1870, primarily as a result of the vision of Judge John Wesley North. North and a group of investors formed the Southern California Colony Association in hopes of founding a viable agricultural colony in southern California (Patterson 1971). Although initially focused upon the Los Angeles region, their gaze shifted to the banks of the Santa Ana River in Rancho Jurupa where land was readily available for purchase from the California Silk Association (Stonehouse 1965). North became part of the community, providing the initial survey of the new colony and helping to facilitate its overall development. The community was originally dubbed "Yurupa," but the moniker was revised to "Riverside" at the close of 1870 (Stonehouse 1965; Patterson 1971). Although North had originally envisioned a diversified farming community growing a wide range of produce, including "oranges, lemons, figs, English walnuts, olives, almonds, raisin grapes, wine grapes, peanuts,

sweet potatoes, sorghum and sugar beets" (Stonehouse 1965), the drive of the citrus industry by the 1880s and the introduction of the navel orange would eventually lead to a more citrus-focused industry in Riverside.

The expansion of the citrus industry in Riverside would have never been possible without the canal system, which was established in stages between 1870 and 1888. In an effort to feed the growing citrus industry, the first of these irrigation projects was initiated by the Southern California Colony Association and the California Silk Association in 1870 (Bailey 1961). This first canal system was followed by additional canals developed by the Riverside Canal Company and the Riverside Water Company in 1886 (Bailey 1961). With the establishment of a third large canal (the Gage Canal) between 1882 and 1888, a constant and reliable water source had been established, feeding some 20,000 acres of navel orange groves by 1885 (Guinn 1907; Brown 1985).

The growth of Riverside was further fueled by the development of the railroad system across the United States, giving the city the ability to ship citrus nationwide. As a result of the success of the navel orange, the establishment of canal systems, the advent of rail transportation, and the subsequent associated packing and cold storage industries, by 1885, Riverside had become the wealthiest city per capita in the United States (Patterson 1971).

After the end of World War II, as with the rest of Riverside County, a significant portion of the city of Riverside remained largely agricultural well into the 1970s. However, the city did enjoy some diversification with the introduction of a sizable manufacturing sector during this period. Following the 1970s, the city of Riverside and Riverside County as a whole saw a period of dramatic population increase as the result of new development, with the city growing to a population of over 300,000 residents by 2010 (United States Census Bureau 2010).

3.2.8 March Air Force Base

In early 1917, the United States entered World War I, necessitating the construction of additional military bases across the country to contribute to the war effort. During that time, March AFB operated as a small temporary United States Army Air Corps facility (Mikesell and Wee 1996). However, March AFB only saw limited use, as World War I ended on November 11, 1918, shortly after the base was established (Patterson 1971). The base was subsequently deactivated and dismantled for the construction of what is now called the March Field Historic District in the mid-1920s. The plans for the new base were heavily influenced by emerging principles in the field of city planning that favored a comprehensive approach to urban design, which coordinates diverse aspects of the built environment such as architecture, landscape, transportation, communal areas, etc. The reconstruction of the base was heavily influenced by the work of California architect Myron Hunt, who established a Mission Revival theme for the base, and New York City planner George B. Ford, who designed the base's triangular plan (Schroth 1998).

After its reconstruction and before World War II, the base was actively used for pilot training and tactical unit repair and activation (March ARB 2010). With the advent of World War II, it grew in size and importance, housing troops from around the United States and further expanding the county of Riverside's economy and population, with many service members choosing to settle in the region. During World War II, a massive construction program was undertaken at March AFB and numerous barracks, warehouses, and supply and utility buildings were constructed using standardized designs provided by the United States military (Schroth 1998). In addition, the runways and airfield facilities were improved due to the increasing importance of the United States Air Force and Camp Haan, a new anti-aircraft artillery cantonment, laid out west of the base in 1940 (Johnson et al. 1991 in Schroth 1998). Construction of Camp Haan led to increased traffic at both March AFB and Camp Haan so much so that realignment of Highway 395 was required. Camp Haan was not part of March AFB at the time of its construction; however, it was still involved in the social and military life of the base and was absorbed by the base following World War II. Although March AFB was significantly expanded during World War II, it remained a training center during the greater part of the war (Johnson et al. 1991).

While defense spending was drastically decreased in the post-World War II period, the United States Air Force continued to be one of the most important components of the United States military following the Cold War. The United States Air Force used and reorganized the existing March AFB facilities and new facilities with up-to-date technology were added (Schroth 1998). Throughout the Cold War, March AFB continued to expand. In 1949, it was placed under Strategic Air Command (SAC), who was responsible for nuclear warfare and its deterrence (Mikesell and Wee 1996). As a result, March AFB became the "deterrent to the perceived Soviet threat and played an integral part of that role in the years to come" (Wessel 1995). In the 1950s and 1960s, March AFB served as the headquarters of the Fifteenth Air Force (15 AF), which played an important role in the development and management of the SAC's Intercontinental Ballistic Missile (ICBM) force (Mikesell and Wee 1996). At that time, AF 15 at March AFB controlled over 10 bases throughout the West, holding jurisdiction over 75.00 percent of SAC's ICBMs throughout the western United States (Wessel 1995).

During the Vietnam War, as March AFB served as the 15 AF headquarters, much of the planning and deployment of SAC forces to Southeast Asia took place at the base. With the relocation of the air refueling deployment operation from Castle AFB in northern California to March AFB in 1972, March AFB began to play an increasingly important role in the conduct of the war. In the period after the war, March AFB experienced many budget and personnel cuts. The number of employees at the base was reduced by 20.00 percent and some personnel were moved to inland bases. With the end of the Cold War, SAC was disestablished in 1992.

In 1993, the federal government, through the Defense Base Closure and Realignment Commission, mandated the realignment of March AFB and a substantial reduction in its military use under the command of Air Mobility Command. The 15 AF headquarters were relocated to Travis, California in 1993 (Wessel 1995). The decision to realign March AFB resulted in

approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions. To oversee the dispensation and management of the surplus land, the cities of Moreno Valley, Perris, and Riverside and the County of Riverside formed the March JPA in 1993, which continues to serve as the reuse authority of March ARB. In 1996, the base was officially redesignated as March ARB (March Field Air Museum n.d.).

3.3 Applicable Regulations

The goal of numerous laws, regulations, and statutes at federal, state, and local levels is to protect and direct the management of cultural resources. These include:

- The Antiquities Act of 1906,
- The Historic Sites Act of 1935,
- The Reservoir Salvage Act of 1960,
- The NHPA of 1966,
- The NEPA of 1969,
- Executive Order 11593 (Projection and Enhancement of the Cultural Environment, 1971),
- 36 CFR 800 and CFR 60 (Advisory Council on Historic Preservation: Protection of Historic and Cultural Properties, Amendments to Existing Regulations, 1/30/1979; NRHP, Nominations by State and Federal Agencies, Rules and Regulations, 1/9/1976),
- Revisions to 36 CFR 800 (Protection of Historic Properties, 1/10/1986),
- The Archaeological and Historical Preservation Act of 1974,
- The American Indian Religious Freedom Joint Resolution of 1978,
- The Archaeological Resources Protection Act of 1979,
- The Native American Graves Protection and Repatriation Act of 1990, and
- CEQA (1970),
- MJPA CEQA Guidelines (2022)

Collectively, these regulations and guidelines establish a comprehensive program for the identification, evaluation, and treatment of cultural resources. Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of Riverside County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA and Section 106 of the NHPA provides the guidance for making such a determination. The following sections detail Section 106, CEQA, and MJPA criteria that a resource must meet in order to be determined important.

3.3.1 Federal Significance Criteria

The four primary evaluation criteria to determine a resource's eligibility to the NRHP, in accordance with the regulations outlined in 36 CFR 800, are identified by 36 CFR 60.4. These criteria (listed below) are used to facilitate the determination of which properties should be considered for protection from destruction or impairment resulting from project-related impacts (36 CFR 60.2). These include impacts to the quality of significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

3.3.2 California Environmental Quality Act

According to CEQA (§15064.5a), the term "historical resource" includes the following:

1) A resource listed in, or determined to be eligible by, the State Historical Resources Commission, for listing in the CRHR (Public Resources Code [PRC] SS5024.1, Title 14 CCR. Section 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3) Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be

"historically significant" if the resource meets the criteria for listing on the CRHR (PRC SS5024.1, Title 14, Section 4852), including the following:

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

4) The fact that a resource is not listed in, or determined eligible for listing in, the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), or identified in an historical resources survey (meeting the criteria in Section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

1) 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.
2) The significance of an historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR.
b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant.
c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its

eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects upon archaeological sites and contains the following additional provisions regarding archaeological sites:

1. When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
2. If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the PRC, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the PRC do not apply.
3. If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the PRC, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in PRC Section 21083.2(c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
4. If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect upon the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report (EIR), if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Sections 15064.5(d) and 15064.5(e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

(d) When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC) as provided in PRC SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:

1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).

2) The requirement of CEQA and the Coastal Act.

3.3.3 2022 MJPA CEQA Guidelines Section 11.28

The 2022 MJPA CEQA Guidelines conform to the requirements set forth in the State CEQA Guidelines, 14 CCR 15064.5(a). According to Section 11.28 "Historical Resources," "Resources listed in, or eligible for listing in, the California Register of Historical Resources [CRHR] shall be considered historical resources."

A resource may be listed in the CRHR if it meets any of the following NRHP criteria:

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

A resource may also be listed in the CRHR if it is identified as significant in an historical resource survey that meets all of the following criteria:

(1) The survey has been or will be included in the State Historic Resources Inventory;
(2) The survey and the survey documentation were prepared in accordance with office procedures and requirements; and
(3) The resource is evaluated and determined by the office to have a significance rating of Category 1 to 5 on DPR Form 523.

Resources included on a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution, or identified as significant in an historical resource survey (as described above) are presumed to be historically or culturally significant, unless a preponderance of evidence demonstrates that they are not historically or culturally significant.

Any of the following may be considered historically significant: any object, building, structure, site, area, place, record or manuscript which a Lead Agency determines, based upon substantial evidence in light of the whole record, to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California.

The Lead Agency is not precluded from determining that a resource is a historical resource, as defined in Public Resources Code sections 5020.1(j) or 5024.1, even if it is: (a) not listed in, or

is not determined to be eligible for listing in, the CRHR; (b) not included in a local register of historical resources; or (c) not identified in an historical resources survey.

3.4 Research Design

The primary goal of the research design is to attempt to understand the way in which humans have used the land and resources within the project area through time, as well as to aid in the determination of resource significance. For the current project, the study area under investigation is the western portion of Riverside County. The scope of work for the archaeological program conducted for the West Campus Upper Plateau Project included a Class I inventory and Class III/Phase I survey of the approximately 410-acre APE, followed by the Phase II archaeological testing and evaluation of sites CA-RIV-4067, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15. In addition, at the request of the consulting tribes, seven additional exploratory STPs were excavated within the APE at locations of their choosing.

Given the area involved and the recorded presence of archaeological sites, the research design for this project was focused upon realistic study options. Since the main objective of the investigation was to identify the presence of, and potential impacts to, historic resources, the goal is not necessarily to answer wide-reaching theories regarding the development of early southern California, but to investigate the role and importance of the identified resources. Nevertheless, the assessment of the significance of a resource must take into consideration a variety of characteristics, as well as the ability of the resource to address regional research topics and issues.

Although elementary site testing programs are limited in terms of the amount of information available, several specific research questions were developed that could be used to guide the initial investigations of any observed archaeological resources. The following research questions take into account the size and location of the APE discussed above.

Research Questions:

- Can located archaeological resources be situated with a specific time period, population, or individual?
- Do the types of located archaeological resources allow a site activity/function to be determined from a preliminary investigation? What are the site activities? What is the site function? What resources were exploited?
- How do the located sites compare to others reported from different surveys conducted in the area?
- How do the located sites fit existing models of settlement and subsistence for valley environments of the region?

Data Needs

At the test level, the principal research objective is a generalized investigation of changing settlement patterns in both the prehistoric and historic periods within the study area. The overall goal is to understand settlement and resource procurement patterns of the project area occupants. Therefore, adequate information on site function, context, and chronology from an archaeological perspective is essential for the investigation. The fieldwork and archival research were undertaken with the following primary research goals in mind:

1) To identify archaeological resources occurring within the APE;
2) To determine, if possible, site type and function, context of any deposits, and chronological placement of each archaeological resource identified;
3) To place each archaeological resource identified within a regional perspective; and
4) To provide recommendations for the treatment of each of the identified archaeological resources.

4.0 METHODOLOGY

The archaeological assessment conducted for the West Campus Upper Plateau Project consisted of institutional records searches, a Class III/Phase I survey, and a Phase II archaeological testing and evaluation program. This archaeological study conformed to the NHPA, Section 106, the NEPA of 1969, CEQA, and MJPA guidelines.

4.1 Methods

4.1.1 Records Search

The records search conducted by the EIC at UCR was reviewed for an area of one mile surrounding the Development Area in order to determine the presence of any previously recorded sites. Results of the records search are provided in Appendix III and discussed in Section 5.1. Land patent records held by the Bureau of Land Management (BLM) and accessible through the BLM Government Land Office website were also reviewed for pertinent project information. In addition, the BFSA research library was consulted for any relevant historical information.

4.1.2 Survey Methods

The archaeological survey of the property was conducted on July 26 and 27, 2021. The survey included an intensive pedestrian reconnaissance consisting of a series of parallel transects spaced at approximately 15-meter intervals. The entire approximately 410-acre APE was included in the survey process and photographs were taken to document project conditions (see Section 5.2). Ground visibility throughout the APE was moderate to poor due to areas containing dense vegetation and previous military development. Where possible, rodent spoil piles and alluvial cuts were closely inspected for evidence of archaeological materials. No additional constraints were encountered during the field survey.

On June 6 and 7, 2022, the identified sites were subjected to detailed recordation of all visible elements of all newly identified resources. All previously recorded sites were relocated and updated. All milling features were mapped using a Trimble Global Positioning System (GPS) unit equipped with Trimble Connect Software. Documentation of milling features included mapping each feature with the GPS instrument and recording the measurements of each bedrock feature and milling surface. The attributes of each surface were recorded on data forms specifically developed for the recordation of milling surfaces; the length, width, and depth of each surface was noted, in addition to the general overall characteristic of the surface (*i.e.,* slick, oval, mortar, etc.). The features were sketched and photographed as part of the recordation process.

4.1.3 Test Methods

Between March 20 and 31, 2023, sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-15 were subjected to archaeological testing. Through detailed mapping and consultation between MJPA, the Soboba

and Pechanga Bands, and the applicant, it was determined that all features at sites CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 are situated along the outside periphery of the APE, outside of the proposed Cactus Avenue extension. This was fully realized as the applicant delineated these areas of the APE with staking prior to testing. As such, testing was not conducted within the site areas containing any features, but rather within adjacent areas, primarily within the APE, to confirm the site boundaries do not extend into the APE.

Features A, B, C, D at CA-RIV-5420 are located outside of the proposed Barton Street extension area of the APE. It was determined during the current study that features E to H are within the APE. However, after testing, Feature H was also determined to be located outside the APE as the staking in that area had been moved prior to the actual testing.

In addition, at the request of the consulting tribes, seven additional exploratory STPs were excavated within the APE at locations of their choosing. No testing occurred at sites CA-RIV-4068 and CA-RIV-5421 because the former was found to clearly be outside the APE and the later was tested and evaluated by McDonald and Giacomini in 1996. As such, the current study at these two sites consisted of review of current site conditions.

The archaeological testing strategy employed included the collection of any surface artifacts and the excavation of STPs to determine if cultural deposits were present. As no surface artifacts were identified within the property, placement of the STPs was dependent upon locations of milling features, areas of soil accumulation, and requests by the Soboba and Pechanga Bands. BFSA and MJPA honored all requests made by the consulting tribes during the testing program. All features, surface artifacts, and STP locations were mapped using a submeter Trimble (GPS) unit equipped with Trimble Connect Software.

In total, 75 STPs were excavated as part of the current testing program. The shovel test series consisted of 30x30-centimeter excavations, which proceeded in decimeter levels. The STPs varied in depth depending upon whether sufficient soil remained; however, at the request of the consulting tribes, an attempt was made to excavate all STPs to a minimum depth of 40 centimeters. All excavated soils were sifted through one-eighth-inch mesh hardwire cloth. No archaeological material was identified. All field data was recorded on appropriate forms and photographs were used to document the excavations. Documentation of the resources included the preparation of new and updated Department of Parks and Recreation (DPR) site record forms (Appendix II).

4.1.4 Laboratory Analysis

In keeping with generally accepted archaeological procedures and utilizing a classification system commonly employed in this region, collected artifacts would be categorized as to artifact class, material class, and technological class. The ATP proposed that all artifacts were to be stored on-site for analysis. However, no archaeological materials were recovered from the surface or subsurface investigations.

4.1.5 Curation

Generally, after cataloging and identification, collections are marked with the appropriate provenience and catalog information and then packaged for permanent curation. At the request of the Soboba and Pechanga Bands, the ATP mandated that all artifacts would be reburied on-site at the conclusion of the project. However, as no artifacts were recovered, no curation or reburial efforts are warranted. A copy of all project field notes, photographs, and reports will be submitted to the EIC at UCR for curation. Original documentation will be curated at the BFSA offices in Poway, California.

4.2 Native American Consultation

BFSA requested a review of the Sacred Lands File (SLF) by the NAHC to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one mile of the project APE. The SLF search results did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the subject property. Original correspondence is provided in Appendix IV.

At the direction of MJPA, BFSA contacted the Pechanga and Soboba Bands to invite them to participate in the cultural resources program. Field meetings between BFSA, MJPA, and the Pechanga and Bands Soboba took place on February 15 and September 15, 2022. The local tribal governments expressed the importance of the area to them, suggesting the potential presence of a Traditional Cultural Property (TCP) or Traditional Cultural Landscape (TCL) representing Tribal Cultural Resources (TCRs) in the vicinity of or overlapping the APE. In addition, the Pechanga Band identified three culturally important, non-archaeological features on the property.

The boundaries of any potential TCRs in the vicinity of the APE are not shared with the archaeological consultant, but rather, this information is presented directly to MJPA by the tribe(s) through the government-to-government Assembly Bill 52 consultation process. Based upon the negative NAHC SLF results, no previously documented TCRs exist within the APE. Therefore, MJPA will determine, through their consultation efforts, whether any recognized TCRs that could be impacted exist within the current project. All recommendations and suggestions from the tribes were implemented into the testing program and both tribes fully participated in the testing efforts. The testing program was conducted to ensure preservation of resources that will clearly not be impacted by the project and to determine appropriate mitigation should any significant resources be identified within the APE.

5.0 REPORT OF FINDINGS

5.1 Results of the Institutional Records Searches and Research

An archaeological records search for a one-mile radius around the APE was requested from the EIC at UCR, the results of which were reviewed by BFSA. The EIC identified 241 resources within the one-mile search radius, eight of which are recorded by the EIC as within or overlapping the APE (Table 5.1–1). Sites CA-RIV-4067 and CA-RIV-5421 and prehistoric isolate P-33-012662 are entirely recorded within the APE. Sites CA-RIV-5420 and CA-RIV-5425 are partially recorded within the APE. Sites RIV-5811, CA-RIV-5812, and CA-RIV-5819 are shown as overlapping the APE boundary, but during the current study were found to be outside and adjacent to the APE. All of these sites are bedrock milling sites with the exception of isolate P-33-012662, a bifacially flaked, chalcedony cutting tool found in a pile of recently stacked rocks. The isolate has not been relocated since initial recordation and is mapped within the boundaries of Site RIV-5420.

The remaining prehistoric resources within one mile of the APE include 15 prehistoric isolates, 186 prehistoric bedrock milling sites, five bedrock milling sites with associated prehistoric artifacts), and one prehistoric artifact scatter. The historic resources include 11 single-family residences, one historic elementary school, one historic ranch, three historic foundations, two historic railroad alignments, two historic isolates, and five historic trash scatters. The one multicomponent site includes a prehistoric milling component and a historic residence.

Table 5.1–1
Archaeological Sites Located Within One Mile of the APE

Site	Description
P-33-012662*, P-33-015656, P-33-015657, P-33-028913, P-33-028914, P-33-028915, P-33-028916, P-33-028973, P-33-028974, P-33-028975, P-33-028976, P-33-028977, P-33-028978, P-33-028979, P-33-028980, and P-33-028981	Prehistoric isolate(s)
CA-RIV-1786, CA-RIV-2231, CA-RIV-2780, CA-RIV-12,717, and CA-RIV-12,950	Prehistoric bedrock milling feature(s) with associated artifacts
P-33-018671, CA-RIV-2481, CA-RIV-2482, CA-RIV-2485, CA-RIV-2486, CA-RIV-2497, CA-RIV-2498, CA-RIV-2714, CA-RIV-5423, CA-RIV-5425†, CA-RIV-5426, CA-RIV-5427, CA-RIV-5449, CA-RIV-5450, CA-RIV-5457, CA-RIV-5810,	Prehistoric bedrock milling feature(s)

Site	Description
CA-RIV-5811‡, CA-RIV-5812‡, CA-RIV-5813, CA-RIV-5814, CA-RIV-1017, CA-RIV-1775, CA-RIV-1776, CA-RIV-1777, CA-RIV-1778, CA-RIV-1780, CA-RIV-1781, CA-RIV-1784, CA-RIV-2466, CA-RIV-2467, CA-RIV-2468, CA-RIV-2469, CA-RIV-2474, CA-RIV-2475, CA-RIV-2476, CA-RIV-2477, CA-RIV-2478, CA-RIV-2479, CA-RIV-2480, CA-RIV-2483, CA-RIV-2484, CA-RIV-2487, CA-RIV-2488, CA-RIV-2489, CA-RIV-2490, CA-RIV-2491, CA-RIV-2492, CA-RIV-2495, CA-RIV-2496, CA-RIV-2499, CA-RIV-2501, CA-RIV-2502, CA-RIV-2503, CA-RIV-2505, CA-RIV-2506, CA-RIV-2507, CA-RIV-2508, CA-RIV-2509, CA-RIV-2510, CA-RIV-2511, CA-RIV-2512, CA-RIV-2513, CA-RIV-2514, CA-RIV-2515, CA-RIV-2516, CA-RIV-2517, CA-RIV-2519, CA-RIV-2520, CA-RIV-2521, CA-RIV-2522, CA-RIV-2523, CA-RIV-2524, CA-RIV-2525, CA-RIV-2527, CA-RIV-2528, CA-RIV-2547, CA-RIV-2548, CA-RIV-2549, CA-RIV-2550, CA-RIV-2666, CA-RIV-2667, CA-RIV-2692, CA-RIV-2693, CA-RIV-2694, CA-RIV-2695, CA-RIV-2696, CA-RIV-2697, CA-RIV-2698, CA-RIV-2699, CA-RIV-2700, CA-RIV-2701, CA-RIV-2702, CA-RIV-2703, CA-RIV-2704, CA-RIV-2705, CA-RIV-2706, CA-RIV-2707, CA-RIV-2708, CA-RIV-2709, CA-RIV-2710, CA-RIV-2711, CA-RIV-2712, CA-RIV-2779, CA-RIV-2781, CA-RIV-2806, CA-RIV-2807, CA-RIV-5419, CA-RIV-5422, CA-RIV-5424, CA-RIV-5451, CA-RIV-8166, CA-RIV-1016,	

Site	Description
CA-RIV-1779, CA-RIV-1785, CA-RIV-1787, CA-RIV-1788, CA-RIV-1789, CA-RIV-1791, CA-RIV-1792, CA-RIV-2232, CA-RIV-2233, CA-RIV-2234, CA-RIV-2235, CA-RIV-2471, CA-RIV-2470, CA-RIV-2526, CA-RIV-2689, CA-RIV-2493, CA-RIV-2691, CA-RIV-2518, CA-RIV-4067*, CA-RIV-4068, CA-RIV-4069, CA-RIV-5420†, CA-RIV-5421*, CA-RIV-5442, CA-RIV-5815, CA-RIV-5816, CA-RIV-5817, CA-RIV-5818, CA-RIV-5819‡, CA-RIV-5993, CA-RIV-5994, CA-RIV-8091, CA-RIV-8092, CA-RIV-8093, CA-RIV-8909, CA-RIV-8910, CA-RIV-8912, CA-RIV-8913, CA-RIV-8914, CA-RIV-8915, CA-RIV-8916, CA-RIV-8917, CA-RIV-8918, CA-RIV-9435, CA-RIV-11,923, CA-RIV-12,312, CA-RIV-12,652, CA-RIV-12,715, CA-RIV-12,716, CA-RIV-11,769, CA-RIV-11,770, CA-RIV-11,772, CA-RIV-3695, CA-RIV-3696, CA-RIV-3697, CA-RIV-3698, CA-RIV-3699, CA-RIV-3700, CA-RIV-3780, CA-RIV-3781, CA-RIV-3782, CA-RIV-3783, CA-RIV-3784, CA-RIV-5992, CA-RIV-5995, CA-RIV-0998, CA-RIV-5999, CA-RIV-6002, CA-RIV-6003, CA-RIV-6004, CA-RIV-5429, CA-RIV-5438, CA-RIV-5439, CA-RIV-5440, CA-RIV-5441, CA-RIV-6856, CA-RIV-5996, CA-RIV-5997, CA-RIV-5998, CA-RIV-5433, and CA-RIV-6000	
CA-RIV-9507	Prehistoric artifact scatter
CA-RIV-6156	Prehistoric bedrock milling features and a historic residence
P-33-020329, P-33-020330, P-33-020330, P-33-006915, P-33-006916, P-33-006917, P-33-006918, P-33-006919, P-33-020326,	Historic single-family residence

Site	Description
P-33-020327, and P-33-020328	
P-33-014227	Historic Arnold Heights Elementary School
CA-RIV-4194	Historic ranch
CA-RIV-5454, CA-RIV-5456, and CA-RIV-12,313	Historic foundations
CA-RIV-8196 and CA-RIV-12,314	Historic railroad
P-33-024836 and P-33-005563	Historic isolate
P-33-015326, P-33-018667, P-33-018668, P-33-018669, and CA-RIV-4193	Historic trash scatter

**Recorded within the APE*

†Partially recorded within the APE

‡Recorded as overlapping the APE boundary; later determined to be outside APE

In total, 87 previous studies have been conducted within a one-mile radius of the APE, 14 of which included all or portions of the APE (Table 5.1–2). Two of the previous studies were for focused linear pipeline surveys and did not directly address the current APE (Drover 1986, 1989).

Table 5.1–2

Previous Studies Conducted Within the APE

Austerman, Gina and Riordan Goodwin

2014 Cultural Resources Assessment and Archaeological Testing, Alessandro Commerce Center Project, Riverside County, California. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Dice, Michael and Jennifer Sanka

2006 Phase I Archaeological Assessment, Phase II Archaeological Assessment (Testing), and Paleontological Records Review, Kaliber 52 Project, Riverside County, California. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Drover, Christopher

1986 Environmental Impact Evaluation: An Archaeological Assessment of the Southeastern 69 KV Loop-Line and Substations, Riverside County, California. Albert A. Webb Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

1989 An Archaeological Assessment of 1720' P.Z. Tank Site and Associated Pipeline Easement. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Fairbanks, Dan

2016 Initial Study for the Proposed Meridian West Campus-Lower Plateau Project Environmental Impact Report in the March Joint Powers Authority Land Use Jurisdiction, Unincorporated Riverside County, California. Dudek. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

JPR Historical Consulting Services

1996 Cultural Resource Management Plan for March AFB, California. JRP Historical Consulting Services and ASM Affiliates, Inc. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

March Joint Powers Authority

1999 Master Environmental Impact Report for the General Plan of the March Joint Powers Authority. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

McDonald, Meg and Barb Giacomini

1996 An Intensive Survey of Approximately 2,500 Acres of March Air Force Base, Riverside County, California. ASM Affiliates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Pritchard Parker, Mari A., Heather R. Puckett, David Maxwell, Michael Hogan, and Ricardo P. Montijo

1997 Archaeological Testing at Six Sites on March Air Force Base, Riverside County, California. Earth Tech, Inc. and Statistical Research, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Schroth, Adella B.

1998 Review of Traditional Cultural Properties and Ethnography of the March Joint Powers Authority Planning Area. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Tang, Bai "Tom" and Michael Hogan

2017 West Campus-Lower Plateau Meridian Business Park Project. CRM Tech. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

Tetra Tech, Inc.

1990 Cultural Resources Investigations for a Proposed Realignment of Facilities from Los Angeles Air Force Base to March Air Force Base, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Urban Futures, Inc.

1996 Environmental Impact Report for the March Air Force Base Redevelopment Project. Urban Futures, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

William Manley Consulting and Earth Tech, Inc.
1995 Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

In 1990, Tetra Tech, Inc. surveyed almost the entirety of the current APE and identified Site CA-RIV-4067, CA-RIV-4068, and prehistoric isolate P-33-012662 within the APE. However, CA-RIV-4068 was determined to be outside the APE during the current study. Site CA-RIV-4067 was recorded as a single bedrock milling feature and P-33-012662 was recorded as a bifacial flake tool (Tetra Tech, Inc. 1990).

In 1995, William Manley Consulting and Earth Tech, Inc. prepared a historic building inventory and evaluation study that included the subject property. The focus of their study was to determine if any of the structures within March ARB were eligible for inclusion in the NRHP, focusing upon Cold War-era resources that may have been previously excluded from review. The study found the WSA structures within the current APE, including munitions storage igloos and weapons maintenance shops were not eligible for inclusion in the NRHP (William Manley Consulting and Earth Tech, Inc. 1995; MJPA 1999). A letter from the State Historic Preservation Office (SHPO) concurred with the findings of the 1995 William Manley Consulting and Earth Tech, Inc. study (MJPA 1999). Although previously evaluated for the NRHP, due to the age of the previous study and lack of CRHR or local evaluations, BFSA conducted an additional study and evaluation of the WSA in support of the West Campus Upper Plateau Project (Oz 2023).

In 1996, Brian F. Mooney Associates surveyed approximately 2,500 acres of March ARB and identified 60 bedrock milling sites, five historic sites, and three isolated artifacts (McDonald and Giacomini 1996). Within the current APE, they recorded CA-RIV-5420 (seven milling features with 23 slicks and one rub), CA-RIV-5421 (one milling feature with three slicks), CA-RIV-5425 (38 milling features with multiple milling elements), CA-RIV-5811 (two milling features with nine slicks), CA-RIV-5812 (five milling features with 18 slicks), and CA-RIV-5819 (three features with eight slicks) (McDonald and Giacomini 1996). McDonald and Giacomini (1996) did not identify any concentrations of artifacts or midden at any of the sites and recommended all, except for two outside of the current APE (CA-RIV-5439 and CA-RIV-5448), as not eligible for inclusion in the NRHP. However, no Phase II test excavations were performed at any of the sites at that time (McDonald and Giacomini 1996).

In 1996, a Draft EIR was prepared for MJPA (Urban Futures, Inc. 1996), but does not discuss the resources within the project. Rather, an associated Cultural Resources Management Plan supplied by the MJPA lists CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 as not eligible for inclusion in the NRHP (Mikesell et al. 1996). Further, all resources, except for CA-RIV-4067, are listed as having their ineligibility confirmed by SHPO. There was no record on file at the time of the SHPO concurrence for CA-RIV-4067.

In 1997, six sites within March ARB were tested for significance, one of which is located within the current APE (CA-RIV-5421) (Pritchard Parker et al. 1997). Based upon the significance

testing, CA-RIV-5421 was evaluated as not eligible for inclusion in the NRHP (Pritchard Parker et al. 1997).

In 1998, LSA Associates, Inc. conducted a review of TCPs and the ethnography pertaining to the approximately 3,400-acre West March Planning Subarea, which includes the current APE (Schroth 1998). The goal of the study was to make a recommendation as to whether the area may represent a TCP. Schroth (1998) based the findings upon information provided by local Native American groups and past studies conducted within the subject property. The study concluded:

> Based on the surveys and test report, the prehistoric archaeological sites [91 prehistoric sites, including CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819] have been recommended as not significant/not eligible for nomination to the National Register of Historic Places (McDonald and Giacomini 1996; Pritchard-Parker and Puckett 1997). The State Historic Preservation Office (SHPO) concurs with this recommendation.
>
> Based on present knowledge, it is recommended that the area should not be classified as a traditional cultural property. It lacks the native vegetation that would make it a productive food gathering area; it lacks features suggestive of ceremonial/religious practices (rock art, shaman's crystals, cupules, etc.); it lacks midden indicative of long or short term habitation; and most of the native birds and animals are no longer present. At the present time, there is no documentation indicative of use of the area by persons still living. (Schroth 1998)

A letter from SHPO in 1999 concurred with Schroth's findings:

> The report is adequate for the purposes it was intended. It provides some very good information about which Native American groups may have used the area currently occupied by March Air Force Base. The report also demonstrates that while San Manuel Band of Mission Indians do have concerns for the area, that a traditional cultural property, which meets the National Register criteria, does not exist. The report provides systematic means for showing that the criteria for a traditional cultural property which meets the National Register criteria was not met for the resources which are present. (MJPA 1999)

In 1999, MJPA prepared the Master EIR for the MJPA General Plan, which summarized the previous work on the project. The Master EIR asserted that no resources eligible for the CRHR or NRHP are present within the West March Planning Subarea, which includes the current APE (MJPA 1999). However, the Master EIR acknowledged that the area is primarily undeveloped,

may be sensitive for archaeological resources, and may contain resources not previously identified (MJPA 1999).

The remaining studies all overlapped the Brown Street or Cactus Avenue Road extension areas, primarily outside of the current APE. In 2006, Michael Brandman Associates surveyed a proposed industrial warehouse development near CA-RIV-5425 (Dice and Sanka 2006). Dice and Sanka (2006) noted a grouping of bedrock milling features west of the Brown Street extension "separated from site CA-RIV-5425 by a fence" and indicated that the site form was not detailed enough to determine whether or not the features had already been recorded. Therefore, they recorded the features as a new site, CA-RIV-8093, and determined through Phase II archaeological testing that the site was not significant under CEQA or eligible for listing on the CRHR. In 2014, LSA Associates, Inc. studied the same property and noted another grouping of milling features east of the Brown Street extension and recorded them as a new site, CA-RIV-11,923 (Austerman and Goodwin 2014). Through testing, Austerman and Goodwin (2014) determined that CA-RIV-11,923 was not significant or eligible for listing on the CRHR. Although CA-RIV-8093 and CA-RIV-11,923 are both located outside of the current APE, through their recordation and evaluation as not significant, the bulk of Site CA-RIV-5425 was evaluated as not significant and ineligible for listing on the CRHR.

The remaining two studies (Fairbanks 2016; Tang and Hogan 2017) were prepared in support of the adjacent industrial development commonly referred to as the Lower Plateau and do not directly address the current APE.

The site forms for CA-RIV-5812 provide additional information about investigations conducted in 2018. CRM Tech recorded CA-RIV-12,717, east of CA-RIV-5812, as a bedrock milling site with a light lithic scatter, and later extended the boundaries of CA-RIV-5812 to include CA-RIV-12,717. Portions of the now larger site were impacted by trenching for a fence associated with the development of the adjacent Lower Plateau project (Tang and Hogan 2017). As a result, CRM Tech conducted a testing and evaluation program for the newly expanded CA-RIV-5812 that consisted of three STPs, two surface scrapes, and five test units. Based upon CRM Tech's site map, two milling features (F-8 and F-9) associated with the expanded site are located near the boundary of the West Campus Upper Plateau APE. CRM Tech excavated a test unit (U-4) between F-8 and F-9 that yielded a bifacial lithic tool and 21 lithic artifacts before being terminated at 40 centimeters. CRM Tech was not able to complete the testing and evaluation of the site as they were instructed to stop all work by MJPA. Further, at the request of the Tribal Historic Preservation Officer from the Soboba Band of Luiseño Indians, they attempted to replace all recovered artifacts as close to their original locations as necessary (Ballester et al. 2018).

BFSA also reviewed the following historic sources:

- The NRHP Index
- The Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility

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6.0 RESOURCE ANALYSIS AND EVALUATION

6.1 Resource Analysis

The archaeological study of the West Campus Upper Plateau Project identified bedrock milling sites CA-RIV-4067, CA-RIV-5420 (some elements determined to be outside the APE), CA-RIV-5421, Temp-2, Temp-3, and Temp-9 to Temp-15 within the APE. The excavation of 75 STPs throughout the APE failed to recover any archaeological artifacts or cultural material.

Combined, the bedrock milling elements recorded within the APE consist almost entirely of milling slicks exhibiting minimal depth. Prehistoric bedrock milling features are the most ubiquitous archaeological features found in the Riverside area due to the flat exposure of granitic bedrock common to the southern California batholiths. Further, milling slicks are the most common element as they reflect the most expedient use of the natural bedrock for grinding. As discussed by Parr and Wilke (1989), "almost no archaeological survey conducted in an area of reasonable size and containing bedrock outcrops fails to result in the discovery of additional milling slicks." In contrast to other bedrock features, such as mortars, which do exhibit considerable depth that indicates multiple episodes of use, slicks likely only represent an expedient and ephemeral use. In some instances, it has been postulated that a milling slick may be reworked or roughened to increase its use-life (Parr and Wilke 1989); however, as with the features found within the APE, an abundance of naturally occurring granitic outcrops negates the necessity to prolong the use-life of any individual feature. When a slick reached the end of its use-life, becoming too smooth to function properly, it was easier to start a new grinding surface than to rework existing ones. Replicative experiments conducted by archaeologists to analyze milling slicks similar to those found within the APE indicate they could represent as little as 30 minutes of grinding (King 1972; Parr and Wilke 1989), while more updated experiments have shown that "well defined" slicks can be created within a few hours (Erberich 2016). According to Parr and Wilke (1989), "bedrock milling slicks are analogous to other no-longer-useful items such as debitage, worn-out tools, bone scraps, and other debris."

Bedrock milling sites containing milling slicks are so common in the area because they represent tangible evidence of an expedient subsistence strategy that could have occurred over a relatively short period of time. It cannot be conclusively determined how many times a location was utilized; however, areas of more importance to a group would likely also contain evidence of a longer occupation such as midden soil, associated artifacts, or evidence of reworking of the utilitarian features to prolong the use-life. Therefore, the number of milling features or elements found in a general location cannot by themselves be interpreted as relating to either a large population, long period of use, or importance to the prehistoric inhabitants of any area. Rather, the presence of milling features without any considerable depth or signs of reworking/roughening, combined with the lack of any associated artifacts or habitation debris, firmly illustrates that the prehistoric bedrock milling sites within the APE represent a location or landscape used only for the most expedient extraction of resources.

6.2 CRHR, MJPA, and NRHP Evaluation

The archaeological assessment of the prehistoric resources within the West Campus Upper Plateau APE consisted of records searches, surveys, and an evaluation program for sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15. No testing occurred at CA-RIV-5421 since the site was previously tested and evaluated as not eligible for the NRHP (McDonald and Giacomini 1996) and the current review did not identify any new information that would change this evaluation. The methods used during this investigation were implemented in accordance with the CEQA, NHPA, Section 106, and the NEPA of 1969. The results of the significance evaluations and a discussion of the potential impacts for the sites are presented below. For a historic resource to be eligible for listing on the NRHP or CRHR, the resource must be found significant at the local, state, or national level, under one or more of the following criteria:

- **CRHR/MJPA Criterion A/NRHP Criterion 1:**
  It is associated with events that have made a significant contribution to the broad patterns of California history and cultural heritage/our history.

- **CRHR/MJPA Criterion B/NRHP Criterion 2:**
  I It is associated with the lives of persons important/significant in our past.

- **CRHR/MJPA Criterion C/NRHP Criterion 3:**
  It embodies the distinctive characteristics of a type, period, region, or method of construction, or that represents the work of an important creative individual/represent a significant and distinguishable entity whose components may lack individual distinction, or possesses high artistic values.

- **CRHR/MJPA Criterion D/NRHP Criterion 4:**
  It has yielded, or may be likely to yield, information important in prehistory or history.

If a resource is determined not to be significant under these criteria, mitigation measures are not warranted. However, any resources found to be significant according to these criteria must be assessed for project-related actions that could directly or indirectly impact such resources. Impacts that adversely affect significant resources are considered significant impacts for which mitigating measures are warranted.

6.3 Significance Evaluation and Impact Analysis

The impact analysis and significance evaluations for the historic resources investigated as part of the West Campus Upper Plateau Project are presented below.

6.3.1 Sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15

Sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15 are located within the proposed project APE and include 11 bedrock milling feature sites with no subsurface components. BFSA evaluated these resources for significance and eligibility for listing on the NRHP and CRHR under National Park Service (Andrus and Shrimpton 2002) guidelines and the 2022 MJPA CEQA Guidelines. To qualify as a significant resource under MJPA, CRHR, or NRHP criteria, a property must represent a significant theme in American or California history, archaeology, architecture, engineering, or culture, and it must be a good representation of that theme. Moreover, the property must retain integrity; that is, an ability to convey its association with important events, individuals, or themes by means of its physical characteristics.

Based upon the background research, sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15 are not eligible for listing on the NRHP or CRHR under Criterion 1/A, identified in 36 CFR 60.4 and §15064.5(a), as there is no indication that the sites are directly associated with events that have made a significant contribution to the broad patterns of local, state, or national history and cultural heritage.

Sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15 are not eligible for listing on the NRHP or CRHR under Criterion 2/B, identified in 36 CFR 60.4 and §15064.5(a), as background research does not indicate that the sites are associated with the lives of persons important in our past on the national, regional, or local level. No individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to these resources. This is typical of most prehistoric archaeological sites due to the period of occupation that they represent. BFSA's consultation with the NAHC also did not indicate that the sites were directly identified with any historically important individuals identified in ethnographic documentation, oral histories, or traditional stories.

According to the recovered archaeological data, sites CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15 are not eligible for listing on the NRHP or CRHR under Criterion 3/C, identified in 36 CFR 60.4 and §15064.5(a), as they do not embody the distinctive characteristics of a type, period, region, or method of construction, they do not represent the work of an important creative individual, and they do not possess high artistic values. A review of the records search conducted for the project and studies conducted throughout the region indicates that sites similar to CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3, and Temp-9 to Temp-15 are typical in Riverside County and are neither distinctive nor unique.

The information already obtained suggests that the sites do not have additional prehistoric research potential. Given the lack of subsurface deposits at each site, it is unlikely that further excavation would produce additional data that would change this determination. The sites are unlikely to contribute important information to local, state, or national prehistory beyond this recordation of the milling features. Testing of CA-RIV-4067, CA-RIV-5420, Temp-2, Temp-3,

and Temp-9 to Temp-15 has exhausted their prehistoric research potential and, as a result, the sites are not eligible for listing on the NRHP or CRHR under Criterion 4/D as they are not likely to yield further information important in prehistory or history.

As a result of the archaeological study of the West Campus Upper Plateau Project, sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, Temp-2, Temp-3, and Temp-9 to Temp-15 will be impacted by the project; however, these sites are all evaluated as not eligible for the CRHR or the NRHP and are therefore not considered Historical/Historic Resources under MJPA, CRHR, or NRHP criteria. All other sites investigated as part of the project were determined to be situated outside of the APE and will not be impacted by the project. Therefore, it is recommended that the project proceed with findings of No Adverse Effect and Less than Significant Impact.

6.4 Summary

Based upon the records searches, surveys, and testing program, sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, Temp-2, Temp-3, and Temp-9 to Temp-15 are not eligible for the CRHR or NRHP and are not significant under MJPA, CRHR, or NRHP criteria. Sites CA-RIV-4068, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819 were not evaluated for significance as they were found to have no elements within the APE and CA-RIV-5425 and P-33-012662 could not be relocated within the APE during the current survey. Based upon these findings, it is recommended that the project proceed with findings of No Adverse Effect and Less than Significant Impact. An evaluation for the sites within or near the APE is presented in Table 6.4–1 while Figure 6.4–1 shows what resources will be impacted by the project.

Table 6.4–1
Site Evaluation Summary

<table>
<tr><th>Site</th><th>Within APE</th><th>Tested</th><th>Evaluation</th></tr>
<tr><td>CA-RIV-4067</td><td>Yes</td><td>Yes</td><td>Not eligible for CRHR or NRHP</td></tr>
<tr><td>CA-RIV-4068</td><td>No</td><td>No</td><td>Not evaluated; no impact</td></tr>
<tr><td>CA-RIV-5420</td><td>Some elements determined to be outside the APE</td><td>Within the APE</td><td>Not eligible for CRHR or NRHP</td></tr>
<tr><td>CA-RIV-5421</td><td>Yes</td><td>Yes</td><td>Not Eligible for CRHR or NRHP</td></tr>
<tr><td>CA-RIV-5425</td><td>No; not relocated</td><td>No</td><td rowspan="5">Not evaluated; no impact</td></tr>
<tr><td>CA-RIV-5811</td><td rowspan="3">No</td><td rowspan="3">No</td></tr>
<tr><td>CA-RIV-5812</td></tr>
<tr><td>CA-RIV-5819</td></tr>
<tr><td>P-33-012662</td><td>No; not</td><td>No</td></tr>
</table>

Site	Within APE	Tested	Evaluation
	relocated		
Temp-2	Yes	Yes	Not eligible for CRHR or NRHP
Temp-3			
Temp-9			
Temp-10			
Temp-11			
Temp-12			
Temp-13			
Temp-14			
Temp-15			

Figure 6.4–1
Impact Location Map

(Deleted for Public Review; Bound Separately)

7.0 MANAGEMENT CONSIDERATIONS AND RECOMMENDATIONS

7.1 Recommendations

Although no archaeologically significant resources will be impacted by the project, the bedrock milling features are still viewed as culturally important to the Soboba and Pechanga Bands. Consultation between the tribes, MJPA, and the applicant has led to the development of several conditions related to the prehistoric sites that shall be implemented into a Mitigation Monitoring and Reporting Program (MMRP). These conditions primarily consist of efforts to either preserve in place or relocate (move) bedrock milling features, monitoring of ground-disturbing activities by an archaeologist and Native American observer, and controlled grading within the vicinity of any recorded site to ensure the timely and proper handling of any inadvertent finds.

MJPA requested that BFSA compare the current elevation and proposed final elevation after earthwork of bedrock milling features included in this study to provide recommendations for each feature within or adjacent to the APE. Features clearly outside of the APE shall be preserved in place and attempts shall be made to preserve those within the APE but outside of the grading envelope. For features within areas of cut, an attempt shall be made to relocate them to open space and those in areas of fill shall be attempted to be buried in place. This information is presented in Table 7.1–1 and proposed conditions for the project are provided in Section 7.2.

Table 7.1–1

Recommended Conditions for Bedrock Milling Features Within or Adjacent to the APE

Site	Feature	Recommendation
CA-RIV-4067	A	Attempt to bury in place
CA-RIV-4068*	A	Preserve in place
CA-RIV-5420	A	
	B	
	C	
	D	
	E	Attempt to preserve in place or relocate to open space
	F	Attempt to relocate to open space
	G	
	H	Attempt to preserve in place
CA-RIV-5421	A	
CA-RIV-5811*	1	Preserve in place
	2	
CA-RIV-5812*	8	
	9	
CA-RIV-5819*	1	

Site	Feature	Recommendation
	2	
	3	
Temp-2	A	Attempt to bury in place
Temp-3	A	Attempt to relocate to open space
Temp-9	A	Attempt to preserve in place or relocate to open space
Temp-10	A	Attempt to relocate to open space
Temp-11	A	
	B	
Temp-12	A	
Temp-13	A	
Temp-14	A	Attempt to preserve in place or relocate to open space
Temp-15	A	Attempt to relocate to open space

**Not tested or evaluated for the CRHR or NRHP*

7.2 Mitigation Monitoring

Monitoring during ground-disturbing activities, such as grading or trenching, by a qualified archaeologist is recommended to ensure that if buried features (*i.e.,* human remains, hearths, or cultural deposits) are present, they will be handled in a timely and proper manner. The following recommended conditions have been developed through consultation between MJPA, the consulting tribes, and BFSA to be implemented through the MMRP:

MM-CUL-1 Cultural Resources Monitoring Plan (CRMP)

At least thirty (30) days prior to the issuance of any grading permits, the project applicant shall prepare a Cultural Resources Monitoring Plan (CRMP), in consultation with the Tribes, to explicitly detail the methods and procedures for avoidance and protection measures for cultural resources and the procedures for the inadvertent discovery of unrecorded cultural resources. The treatment of the resource(s) will be consistent with terms and provisions of the mitigation and [the] CRMP may be amended by the MJPA, applicant, archaeologist, and Tribes as agreed upon. Prior to finalization the MJPA will provide the Consulting Tribes the CRMP for review and comment. The final document will include methods, practices, and other appropriate issues that may be relevant to the appropriate treatment of archaeological resources. This CRMP shall include but not [be] limited to the following guidelines:

- The CRMP shall be prepared by an archaeologist meeting the Secretary of the Interior Standards (Project Archaeologist), in consultation with Consulting Tribe(s) (Pechanga Band of Indians and Soboba Band of Luiseño Indians), the

developer, and MJPA, and completed prior to any development within the APE.

- All ground disturbing activities within the APE shall be monitored by a qualified archaeologist and Native American monitor(s).
- The CRMP shall include the protocols and stipulations that the MJPA, archaeologist, Pechanga Band of Indians, and Soboba Band of Luiseño Indians will follow in the event of inadvertent discovery of cultural resources.
- The monitoring frequency and coverage area may be adjusted based upon observed sensitivity for encountering cultural resources by the qualified archaeologist in consultation with the tribes and MJPA.
- If any human remains are discovered, the Riverside County Coroner, MJPA, and consulting Tribes shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted in order to determine proper treatment and disposition of the remains.
- The CRMP shall include details of potential feature relocation and control grading operations. For example, all ground-disturbing activities within 10 to 15 feet at a minimum of a recorded archaeological feature shall be conducted in a controlled fashion, slowly and deliberately, to ensure any potential subsurface resources will be identified. If and when needed, this area may be extended based upon consultation with the tribes.
- Type of recordation necessary for inadvertent finds and the stipulations of recordation of items deemed sacred by the consulting tribes.
- Contact information of relevant individuals for the project.

MM-CUL-2 Contractor Specifications

Following the completion of the CRMP and prior to issuance of any grading permit, the project applicant shall provide evidence, to MJPA satisfaction, that the approved provisions/recommendations as determined in the CRMP are included in Contractor Specifications. The specifications shall include but not be limited to the following:

- The features outside of the APE (CA-RIV-4068 Feature A; CA-RIV-5420 Features A, B, C, and D; CA-RIV-5811 Features 1 and 2; CA-RIV-5812 Features 8 and 9; CA-RIV-5819 Features 1, 2, and 3) shall not be impacted by the project.
- Although not eligible for the CRHR or NRHP, an attempt shall be made (to the satisfaction of the archaeologist and consulting tribes) to preserve in-place the features within the APE which do not appear to be within an area of direct

impact (CA-RIV-5420 Features E and H; CA-RIV-5421 Feature 1 [A]; Temp-9 Feature A; and Temp-14 Feature A)

- Although not eligible for the CRHR or NRHP, an attempt shall be made to relocate (move) or bury in-place all remaining features within the APE.
- Controlled grading within 10 to 15 feet of a recorded archaeological feature shall be implemented.
- Should any cultural resources be discovered during earth-moving activities, no further grading shall occur in the area of the discovery until, through consultation with the archaeologist and Consulting Tribes, the Planning Director is satisfied that adequate provisions are in place to evaluate and protect these resources. This condition and the approved provisions/recommendations as determined in the CRMP, shall be incorporated on the cover sheet of the grading plan.

MM-CUL-3 Workers Environmental Awareness Program (WEAP) Training

An archaeologist meeting the Secretary of the Interior Standards and Native American monitor(s) shall attend a pre-grading meeting to conduct a WEAP training regarding cultural and archaeological sensitivity for all construction personnel and monitors who are not trained archaeologists. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor(s).

MM-CUL-4 Native American Monitoring

A Native American Monitor and Secretary of Interior Qualified Archaeologist shall be present during shall be present during all earth-moving construction activities. At least 30 days prior to issuance of grading permits, separate agreements shall be developed with [the] monitoring Native American Tribes, addressing the roles of the Developer/Applicant, the Qualified Archaeologist, and the Consulting Tribe(s). The Developer/Applicant shall submit fully executed copies of the following to MJPA: (1) the contract for the retention of an archaeologist; (2) the contracts individually between the Tribe(s) and the land owner/Applicant/Developer for the monitoring of the project construction. The monitoring contracts shall include, but

no limited to outlining provisions and requirements for addressing the treatment of cultural resources; project grading and development scheduling; terms of compensation for the monitors; treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site; and establishing on-site monitoring provisions and/or requirements for professional monitoring during ground disturbing activities. The monitors have the authority to divert and stop earth moving activities in the event that suspected cultural resources are unearthed. The monitors will be responsible for maintaining weekly monitoring logs, the Developer shall identify an individual on site to sign weekly logs.

MM-CUL-5 Archaeological Monitoring

Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. Archaeological monitoring shall occur as outlined in the CRMP.

MM-CUL-6 Avoid Environmentally Sensitive Areas (ESA)

Prior to the issuance of grading permits, all features recommended to be preserved in place shall be fenced off with construction fencing and identified as ESAs to ensure project personnel do not disturb the features. The installation of the ESA fencing shall be monitored by the Project Archaeologist and Tribal Monitor. Specific requirements pertaining to the avoidance buffer, style of materials, access, maintenance, and other requirements shall be detailed in the CRMP.

MM-CUL-7 Inadvertent Discovery of Archaeological Resources

Isolates and clearly non-significant deposits identified during the monitoring process will be minimally documented in the field so the monitored grading can proceed. In the event that archaeological resources or tribal cultural resources, which were not previously assessed, are inadvertently unearthed during excavation and grading activities for the Project, the following procedures shall be implemented.

- The contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. The Project Archaeologist, including the consulting Tribes, MJPA, and applicant shall meet to determine the appropriate course of action to evaluate the find's significance and, if necessary, appropriate mitigation in compliance with the approved CRMP. Work may continue in

areas outside of the designated radius.

- If determined by the Project Archaeologist, consulting Tribes, and MJPA, an Evaluation Plan shall be developed by the Project archaeologist and the applicable Native American representative. The plan shall contain, at a minimum, a research design and field methodology designed to address the criterion outlined in the CRHR. Unique cultural resources are defined as being multiple artifacts in close association with each other but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribes.
- Pursuant to California Public Resources Code Section 21083.2(b), avoidance is the preferred method of preservation for significant archaeological resources. If a site is determined to be significant as confirmed by MJPA, and avoidance, preservation and protection in place is not feasible, a Phase III Data Recovery Plan shall be prepared by the Project Archaeologist, in consultation with the Consulting Tribes, and shall be submitted to the MJPA for review and approval prior to implementation. Evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards. If the Tribe(s) disagree with the determined significance of a discovery or proposed management strategy for a cultural resource of Native American origin, these issues will be presented to MJPA Planning Director for decision. The MJPA Planning Director shall make the determination based on the provisions of CEQA with respect to archaeological resources, recommendations of the Project Archaeologist and shall consider the cultural and religious practices of the Tribe(s). Notwithstanding any other rights available under the law, the decision of the MJPA Planning Director shall be appealable to the MJPA Commission.
- After the location of the find has been appropriately cleared by the MJPA work within the area of discovery may resume.

MM-CUL-8 Final Disposition

In the event that Native American cultural resources are identified during the Project earthwork and ground-disturbing activities, the following procedures shall be carried out for final disposition; One or more of the following treatments, in order of preference, shall be employed in consultation with the Consulting Tribes. Evidence shall be provided to the MJPA.

1. Preservation in place of the cultural resources. Preservation in place means avoiding the resources, leaving them in the place where they were found with

no development affecting the integrity of the resources(s).

2. Reburial of the cultural resource(s) on the Project property. The Preservation Site(s) will be located within the Project Site development envelope of the Project outside of any known and identified cultural resources sites. The measures for reburial shall include, at least, the following: Measures and provision to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods, and Native American Human Remains are excluded. Any reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with MJPA under a confidential cover and not subject to Public Records Request.

MM-CUL-9 Controlled Grading and Grubbing

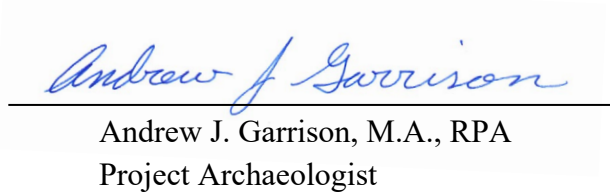
All grading shall be controlled in areas of concern as determined by the Principal Investigator/Archaeologist and with the Consulting Tribe(s) and as reflected in the CRMP. The identified area shall be inspected by the Principal Investigator/Archaeologist and Native American monitor prior to initiating grading for those areas. Grading shall be controlled within the Environmentally Sensitive Buffer Area using a slope board or similar equipment to allow soil to be removed in increments of only a few inches at a time. Other areas which may require controlled grading shall be determined by the Principal Investigator/Archaeologist and the Native American monitor(s) based on the results and soil types identified during grading. Should any changes be needed, an updated exhibit will be produced and approved by all parties prior to any ground disturbance in the newly identified area.

MM-CUL-10 Archaeological Monitoring Report (Phase IV)

A report, prepared by an archaeologist meeting the Secretary of the Interior Standards, documenting monitoring activities conducted by a qualified archaeologist and Native American monitor(s) shall be submitted to MJPA within 60 days of completion of grading or other project-related activities with the potential to impact archaeological or tribal cultural resources. This report shall document the known resources on the property, describe how each mitigation measure was fulfilled, and document the type of cultural resources recovered and the disposition of such resources. The report will be submitted to MJPA, the Eastern Information Center, and the appropriate tribe(s).

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.



July 18, 2023

Andrew J. Garrison, M.A., RPA
Project Archaeologist

Date

9.0 REFERENCES

Andrus, Patrick W. and Rebecca H. Shrimpton
2002 *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.* U.S. Department of the Interior, National Park Service.

Austerman, Gina and Riordan Goodwin
2014 Cultural Resources Assessment and Archaeological Testing, Alessandro Commerce Center Project, Riverside County, California. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Bailey, Janet F.
1961 *The Growth of Riverside.* Unpublished thesis, University of California at Riverside, Riverside Special Collections Department, Riverside, California.

Ballester, Daniel, S. Boites, and C. Morales
2018 Site Record Form Update for Site CA-RIV-5812. CRM Tech. On file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Bean, Lowell John
1978 Cahuilla. In *Handbook of North American Indians* (Vol. 8). California, edited by Robert F. Heizer. Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Florence C. Shipek
1978 Luiseño. In *Handbook of North American Indians* (Vol. 8), California, edited by R.F. Heizer. Smithsonian Institution, Washington, D.C.

Beattie, George W. and Helen P. Beattie
1939 *Heritage of the Valley: San Bernardino's First Century.* Biobooks, Oakland, California.

Brigandi, Phil
1998 *Temecula: At the Crossroads of History*. Heritage Media Corporation, Encinitas, California.

Brown, J.B.
1985 *Harvest of the Sun: An Illustrated History of Riverside County.* Windsor Publications, Northridge, California.

Byrd, Brian F.
1998 Harvesting the Littoral Landscape During the Late Holocene: New Perspectives from Northern San Diego County. *Journal of California and Great Basin Anthropology* 20(2):195–218.

Caughey, John W.
1970 *California, A Remarkable State's Life History*. Prentice-Hall Inc., Englewood Cliffs, New Jersey.

Chapman, Charles E.
1921 *A History of California: The Spanish Period*. The Macmillan Company, New York.

Cook, Sherburne F.
1976 *The Conflict Between the California Indian and White Civilization*. University of California Press, Berkeley and Los Angeles, California.

Dice, Michael and Jennifer Sanka
2006 Phase I Archaeological Assessment, Phase II Archaeological Assessment (Testing), and Paleontological Records Review Kaliber 52 Project, Riverside County, California. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Drover, Christopher
1986 Environmental Impact Evaluation: An Archaeological Assessment of the Southeastern 69 KV Loop-Line and Substations, Riverside County, California. Albert A. Webb Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

1989 An Archaeological Assessment of 1720' P.Z. Tank Site and Associated Pipeline Easement. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

DuBois, Constance Goddard
1908 The Religion of the Luiseño Indians of Southern California. *University of California Publications in American Archaeology and Ethnology* 8(3):69–186.

Erberich, Amber Nichole
2016 The Experimental Replication of a Grinding Slick on Granite. California State University, Bakersfield, *SCA Proceedings* Volume 30.

Engelhardt, Zephyrin
1921 *San Luis Rey Mission, The King of the Missions*. James M. Barry Company, San Francisco, California.

Erlandson, Jon M. and Roger H. Colten (editors)
1991 An Archaeological Context for Early Holocene Sites on the California Coast. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by Jon M. Erlandson and Roger H. Colten, pp. 101–111. Perspectives in California Archaeology 1. Institute of Archaeology, University of California, Los Angeles.

Fagan, B.
1991 *Ancient North America: The Archaeology of a Continent*. Thames and Hudson. London.

Fairbanks, Dan
2016 Initial Study for the Proposed Meridian West Campus-Lower Plateau Project Environmental Impact Report in the March Joint Powers Authority Land Use Jurisdiction, Unincorporated Riverside County, California. Dudek. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Gallegos, Dennis
1987 A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito-La Jolla: Chronology and Controversy*. Editor. San Diego County Archaeological Society Research Paper 1.

1992 Patterns and Implications of Coastal Settlement in San Diego County: 9000 to 1300 Years Ago. In *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research, Davis, California.

Gallegos, Dennis R. and Carolyn E. Kyle
1988 Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric Site SDI-48 (W-164) San Diego, California. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Garrison, Andrew J. and Brian F. Smith
2022 Cultural Resource Archaeological Test Plan for the West Campus Upper Plateau Project, March Air Reserve Base, Riverside County, California. Brian F. Smith and Associates, Inc. Submitted to and on file at March Joint Powers Authority, Riverside, California.

Guinn, J.M.
1907 *A History of California and an Extended History of its Southern Coast Counties*. Historic Record Company, Los Angeles, California.

Gunther, Jane D.
1984 *Riverside County, California, Place Names.* Rubidoux Printing Co., Riverside, California.

Handley, Charles
1967 The Sun City Story. *Sun City News*. Sun City, California.

Harris, Marvin
1991 *Cultural Anthropology*. HarperCollins Publishers Inc., New York, New York.

JPR Historical Consulting Services
1996 Cultural Resource Management Plan for March AFB, California. JRP Historical Consulting Services and ASM Affiliates, Inc. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

King, T.F.
1972 Nibbled Rock Ridge: A Prehistoric Milling Station in the Jurupa Mountains, Riverside County, California. Manuscript on file at the Robert E. Schenk Archives of California Archaeology, Treganza Museum, San Francisco State University, Paper No. 35.

Koerper, Henry, C., Jonathan E. Ericson, Christopher E. Drover, and Paul E. Langenwalter, II
1986 Obsidian Exchange in Prehistoric Orange County. *Pacific Coast Archaeological Society Quarterly* 22(1):33–69.

Kowta, M.
1969 The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Scraper Planes. *University of California Publications in Anthropology* 6.

Kroeber, A.L.
1976 *Handbook of the Indians of California*. Reprinted. Dover Editions, Dover Publications, Inc., New York. Originally published 1925, Bulletin No. 78, U.S. Government Printing Office, Washington, D.C.

Laylander, Don (editor)
1985 Some Linguistic Approaches to Southern California's Prehistory. *San Diego State University Cultural Resource Management Casual Papers* 2(1):14–58.

Laylander, Don, Jerry Schaefer, Nick Doose, Jessica Hennessey, and Ian Scharlotta
2014 A Regional Synthesis of Prehistoric Archaeological Landscapes in the Jacumba/McCain Valley Region, San Diego and Imperial Counties, California. Prepared for the Bureau of Land Management and San Diego Gas & Electric by ASM Affiliates, Carlsbad, California.

March Air Field Museum
N.d. History of March Air Reserve Base. Electronic document, https://www.marchfield.org/visit/about-us/march-air-reserve-base-history/, accessed January 18, 2021.

March Air Reserve Base
2010 The March Field Story. Electronic document, https://www.march.afrc.af.mil/About-Us/Fact-Sheets/Display/Article/167413/the-march-field-story/, accessed August 14, 2020.

March Joint Powers Authority
1999 Master Environmental Impact Report for the General Plan of the March Joint Powers Authority. March Joint Powers Authority. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

Martin, P.S.
1967 Prehistoric Overkill. *Pleistocene Extinctions: The Search for a Cause*, edited by P. Martin and H.E. Wright. Yale University Press: New Haven.

1973 The Discovery of America. *Science* 179(4077):969–974.

Masters, Patricia M.
1983 Detection and Assessment of Prehistoric Artifact Sites off the Coast of Southern California. In: *Quaternary Coastlines and Marine Archaeology: Towards the Prehistory of Land Bridges and Continental Shelves*, edited by P.M. Masters and N.C. Flemming, pp. 189–213. Academic Press, London.

McDonald, Meg and Barb Giacomini
1996 An Intensive Survey of Approximately 2,500 Acres of March Air Force Base, Riverside County, California. ASM Affiliates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Meighan, Clement W.
1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2).

Mikesell, Stephen D., Stephen R. Wee, and Meg McDonald
1996 Cultural Resources Management Plan for March AFB, California, JRP Historical Consulting Services and ASM Affiliates, Inc. Prepared for Army Corps of Engineers Los Angeles District and March Air Force Base.

Miller, J.
1966 *The Present and Past Molluscan Faunas and Environments of Four Southern California Coastal Lagoons*. Master's thesis. University of California, San Diego.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

Moriarty, James R., III
1966 Culture Phase Divisions Suggested by Topological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *Anthropological Journal of Canada* 4(4):20–30.

Morton, D.M. and B. Cox
2001 Geologic map of the Riverside East 7.5' quadrangle, Riverside County, California: U.S. Geological Survey Open-File Report 01-452, scale 1:24,000.

Moss, M.L. and J. Erlandson
1995 Reflections on North American Coast Prehistory. *Journal of World Prehistory* 9(1):1–46.

Oz, Irem
2023 Historic Structure Assessment for the West Campus Upper Plateau Project, March Air Reserve Base, Riverside County, California (APNs 297-090-001, -002, -003, and -009). BFSA Environmental Services, a Perennial Company. Submitted to March Joint Powers Authority, Riverside, California.

Natural Resources Conservation Service (NRCS)
2019 Web Soil Survey. Electronic document, https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, accessed April 26, 2021.

Parr, Robert E. and P.J. Wilke
1989 Cultural Resources Assessment of the Alessandro Heights Project Located in the City of Riverside, Riverside County, California. Archaeological Research Unit, U.C. Riverside. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California

Patterson, Tom
1971 *A Colony for California: Riverside's First Hundred Years.* Press-Enterprise, Riverside, California.

Pourade, Richard F.
1961 *Time of the Bells*. The History of San Diego Volume 2. Union-Tribune Publishing Company, San Diego, California.

1963 *The Silver Dons*. The History of San Diego Volume 3. Union-Tribune Publishing Company, San Diego, California.

Pritchard Parker, Mari A., Heather R. Puckett, David Maxwell, Michael Hogan, and Ricardo P. Montijo
1997 Archaeological Testing at Six Sites on March Air Force Base, Riverside County, California. Earth Tech, Inc. and Statistical Research, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Raven-Jennings, Shelly, Brian F. Smith and Johnna L. Buysse
1996 The Results of a Cultural Resource Study at the 4S Ranch, Rancho Bernardo, County

of San Diego. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Rogers, Malcolm J.
1939 Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. In *San Diego Museum Papers* (No. 3 – 1989 printing). San Diego Museum of Man, San Diego, California.

Rolle, Andrew F.
1969 *California: A History* (Second Edition). Thomas Y. Crowell Company, New York.

Schroth, Adella B.
1998 Review of Traditional Cultural Properties and Ethnography of the March Joint Powers Authority Planning Area. LSA Associates, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Shumway, George, Carl L. Hubbs, and James R. Moriarty, III
1961 Scripps Estate Site, San Diego, California: A La Jollan Site Dated 5,460-7,370 Years Before the Present. *Annals of the New York Academy of Sciences* 93(3).

Smith, Brian F. and James R. Moriarty, III
1985 An Archaeological Reconnaissance of San Diego Motor Racing Park, Otay Mesa, San Diego. Unpublished report on file at the City of San Diego, Environmental Analysis Division, San Diego, California.

State Historic Preservation Office (SHPO)
1995 *Instructions for Recording Historical Resources*. Office of Historic Preservation, Sacramento.

Stonehouse, Merlin
1965 *John Wesley North and the Reform Frontier*. University of Minnesota Press, Minneapolis, Minnesota.

Strong, William Duncan
1929 Aboriginal Society in Southern California. *University of California Publications in American Archaeology and Ethnology* 26(1).

Sutton, Mark Q.
2009 People and Language: Defining the Takic Expansion into Southern California. *Pacific Coast Archaeological Society Quarterly* 41(2&3):33–93.

2011a The Palomar Tradition and Its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(4):1–74.

2011b *A Prehistory of North America.* Routledge, New York.

Sutton, Mark Q. and Jill K. Gardner
2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1–64.

Tang, Bai "Tom" and Michael Hogan
2017 West Campus-Lower Plateau Meridian Business Park Project. CRM Tech. Unpublished report on file at the March Joint Powers Authority, Riverside, California.

Tetra Tech, Inc.
1990 Cultural Resources Investigations for a Proposed Realignment of Facilities from Los Angeles Air Force Base to March Air Force Base, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

True, Delbert L.
1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3).

1980 The Pauma Complex in Northern San Diego County. *The Journal of New World Archaeology* 3(4):1–39

Urban Futures, Inc.
1996 Environmental Impact Report for the March Air Force Base Redevelopment Project. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

United States Census Bureau
2010 2010 Census of Population and Housing, Population and Housing Unit Counts, CPH-2-1, United States Summary. U.S. Government Printing Office, Washington, D.C., 2012. Electronic document, https://www.census.gov/prod/cen2010/cph-2-1.pdf, accessed August 14, 2020.

Wallace, William J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214–230.

Warren, Claude N. (editor)
1968 Cultural Tradition and Ecological Adaptation on the Southern Coast. In *Archaic Prehistory in the Western United States,* C.I. Williams, editor. *Eastern New Mexico University Contributions in Anthropology* 1(3):1–14.

Warren, Claude N. and D.L. True

1961 The San Dieguito Complex and its Place in California Prehistory, In *Archaeological Survey Annual Report 1960-1961*. University of California Press, Los Angeles, California.

Warren, Claude N., D.L. True, and Ardith A. Eudey

1961 Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey. *Archaeological Survey Annual Report 1960-1961*. University of California, Los Angeles.

Wessel, Terri Caruso

1995 Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California. William Manley Consulting and EARTH TECH. Submitted to and on file with the U.S. Department of the Air Force, Brooks Air Force Base, Texas.

William Manley Consulting and Earth Tech

1995 Historic Building Inventory and Evaluation, March Air Force Base, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

APPENDIX I

Resumes of Key Personnel

Andrew J. Garrison, MA, RPA

Project Archaeologist

BFSA Environmental Services, A Perennial Company
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: agarrison@bfsa.perennialenv.com

Education

Master of Arts, Public History, University of California, Riverside **2009**

Bachelor of Science, Anthropology, University of California, Riverside **2005**

Bachelor of Arts, History, University of California, Riverside **2005**

Professional Memberships

Register of Professional Archaeologists
Society for California Archaeology
Society for American Archaeology
California Council for the Promotion of History
Society of Primitive Technology
Lithic Studies Society
California Preservation Foundation
Pacific Coast Archaeological Society

Experience

Project Archaeologist **June 2017–Present**
BFSA Environmental Serives, A Perennial Company **Poway, California**

Project management of all phases of archaeological investigations for local, state, and federal agencies including National Register of Historic Places (NRHP) and California Environmental Quality Act (CEQA) level projects interacting with clients, sub-consultants, and lead agencies. Supervise and perform fieldwork including archaeological survey, monitoring, site testing, comprehensive site records checks, and historic building assessments. Perform and oversee technological analysis of prehistoric lithic assemblages. Author or co-author cultural resource management reports submitted to private clients and lead agencies.

Senior Archaeologist and GIS Specialist **2009–2017**
Scientific Resource Surveys, Inc. **Orange, California**

Served as Project Archaeologist or Principal Investigator on multiple projects, including archaeological monitoring, cultural resource surveys, test excavations, and historic building assessments. Directed projects from start to finish, including budget and personnel hours proposals, field and laboratory direction, report writing, technical editing, Native American consultation, and final report submittal. Oversaw all GIS projects including data collection, spatial analysis, and map creation.

Preservation Researcher **2009**
City of Riverside Modernism Survey **Riverside, California**

Completed DPR Primary, District, and Building, Structure and Object Forms for five sites for a grant-funded project to survey designated modern architectural resources within the City of Riverside.

Information Officer **2005, 2008–2009**
Eastern Information Center (EIC), University of California, Riverside **Riverside, California**

Processed and catalogued restricted and unrestricted archaeological and historical site record forms. Conducted research projects and records searches for government agencies and private cultural resource firms.

Reports/Papers

2019 A Class III Archaeological Study for the Tuscany Valley (TM 33725) Project National Historic Preservation Act Section 106 Compliance, Lake Elsinore, Riverside County, California. Contributing author. Brian F. Smith and Associates, Inc.

2019 A Phase I and II Cultural Resources Assessment for the Jack Rabbit Trail Logistics Center Project, City of Beaumont, Riverside County, California. Brian F. Smith and Associates, Inc.

2019 A Phase I Cultural Resources Assessment for the 10575 Foothill Boulevard Project, Rancho Cucamonga, California. Brian F. Smith and Associates, Inc.

2019 Cultural Resources Study for the County Road and East End Avenue Project, City of Chino, San Bernardino County, California. Brian F. Smith and Associates, Inc.

2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California. Contributing author. Brian F. Smith and Associates, Inc.

2019 A Section 106 (NHPA) Historic Resources Study for the McElwain Project, City of Murrieta, Riverside County, California. Brian F. Smith and Associates, Inc.

2018 Cultural Resource Monitoring Report for the Sewer Group 818 Project, City of San Diego. Brian F. Smith and Associates, Inc.

2018 Phase I Cultural Resource Survey for the Stone Residence Project, 1525 Buckingham Drive, La Jolla, California 92037. Brian F. Smith and Associates, Inc.

2018 A Phase I Cultural Resources Assessment for the Seaton Commerce Center Project, Riverside County, California. Brian F. Smith and Associates, Inc.

2017 A Phase I Cultural Resources Assessment for the Marbella Villa Project, City of Desert Hot Springs, Riverside County, California. Brian F. Smith and Associates, Inc.

2017 Phase I Cultural Resources Survey for TTM 37109, City of Jurupa Valley, County of Riverside. Brian F. Smith and Associates, Inc.

2017 A Phase I Cultural Resources Assessment for the Winchester Dollar General Store Project, Riverside County, California. Brian F. Smith and Associates, Inc.

2016 John Wayne Airport Jet Fuel Pipeline and Tank Farm Archaeological Monitoring Plan. Scientific Resource Surveys, Inc. On file at the County of Orange, California.

2016 Historic Resource Assessment for 220 South Batavia Street, Orange, CA 92868 Assessor's Parcel Number 041-064-4. Scientific Resource Surveys, Inc. Submitted to the City of Orange as part of Mills Act application.

2015 Historic Resource Report: 807-813 Harvard Boulevard, Los Angeles. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.

2015 Exploring a Traditional Rock Cairn: Test Excavation at CA-SDI-13/RBLI-26: The Rincon Indian Reservation, San Diego County, California. Scientific Resource Surveys, Inc.

2014 Archaeological Monitoring Results: The New Los Angeles Federal Courthouse. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.

2012 Bolsa Chica Archaeological Project Volume 7, Technological Analysis of Stone Tools, Lithic Technology at Bolsa Chica: Reduction Maintenance and Experimentation. Scientific Resource Surveys, Inc.

Presentations

2017 "Repair and Replace: Lithic Production Behavior as Indicated by the Debitage Assemblage from CA-MRP-283 the Hackney Site." Presented at the Society for California Archaeology Annual Meeting, Fish Camp, California.

2016 "Bones, Stones, and Shell at Bolsa Chica: A Ceremonial Relationship?" Presented at the Society for California Archaeology Annual Meeting, Ontario, California.

2016 "Markers of Time: Exploring Transitions in the Bolsa Chica Assemblage." Presented at the Society for California Archaeology Annual Meeting, Ontario, California.

2016 "Dating Duress: Understanding Prehistoric Climate Change at Bolsa Chica." Presented at the Society for California Archaeology Annual Meeting, Ontario, California.

2014 "New Discoveries from an Old Collection: Comparing Recently Identified OGR Beads to Those Previously Analyzed from the Encino Village Site." Presented at the Society for California Archaeology Annual Meeting, Visalia, California.

2012 Bolsa Chica Archaeology: Part Seven: Culture and Chronology. Lithic demonstration of experimental manufacturing techniques at the April meeting of The Pacific Coast Archaeological Society, Irvine, California.

APPENDIX II

Updated and New Site Record Forms

(Deleted for Public Review; Bound Separately)

APPENDIX III

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX IV

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX V

Confidential Maps

(Deleted for Public Review; Bound Separately)