

Appendix E

Cultural Resources

A CULTURAL RESOURCES STUDY FOR THE WEST CAMPUS UPPER PLATEAU PROJECT

MARCH AIR RESERVE BASE RIVERSIDE COUNTY, CALIFORNIA

Lead Agency:

March Joint Powers Authority
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Project Proponent:

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c/o Lewis Retail Centers
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National Archaeological Database Information

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- Report Title:** A Cultural Resources Study for the West Campus Upper Plateau
Project, March Air Reserve Base, Riverside County, California
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- USGS Quadrangle:** Sections 15, 16, 17, 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 400 acres
- Key Words:** USGS *Riverside East* Quadrangle (7.5 minute); archaeological
survey; Bedrock Milling Sites, CA-RIV-4067, CA-RIV-4068
CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5426,
CA-RIV-5451, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819,
CA-RIV-8093, CA-RIV-11,923, Temp-2, Temp-3, and Temp-9
to Temp-14; Phase II testing and evaluation recommended.

Table of Contents

<u>Section</u>	<u>Page</u>
1.0 MANAGEMENT SUMMARY/ABSTRACT	1.0-1
2.0 INTRODUCTION.....	2.0-1
3.0 PROJECT SETTING	3.0-1
3.1 Environmental Setting	3.0-1
3.2 Cultural Setting – Archaeological Perspectives	3.0-2
3.2.1 Introduction	3.0-3
3.2.2 Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 YBP)	3.0-3
3.2.3 Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)	3.0-3
3.2.4 Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)	3.0-6
3.2.5 Protohistoric Period (Late Holocene: 1790 to Present)	3.0-7
3.2.6 Ethnohistoric Period (1769 to Present)	3.0-14
3.2.7 General History of the City of Riverside	3.0-18
3.3 Applicable Regulations	3.0-19
3.3.1 Federal Significance Criteria.....	3.0-20
3.3.2 California Environmental Quality Act (CEQA)	3.0-20
3.4 Research Design	3.0-23
4.0 METHODOLOGY	4.0-1
4.1 Field Methodology	4.0-1
4.2 Archaeological Records Search	4.0-1
4.3 Native American Consultation.....	4.0-1
5.0 REPORT OF FINDINGS	5.0-1
5.1 Results of the Institutional Records Searches and Research.....	5.0-1
5.2 Results of the Field Survey	5.0-9
6.0 MANAGEMENT CONSIDERATIONS AND RECOMMENDATIONS.....	6.0-1
6.1 Archaeological Testing Program.....	6.0-1
7.0 CERTIFICATION	7.0-1
8.0 REFERENCES.....	8.0-1

Appendices

Appendix I – Resumes of Key Personnel

Appendix II – Archaeological Records Search Results*

Appendix III – Native American Heritage Commission Sacred Lands File Search Results*

Appendix IV – Table 5.1-1

Appendix V – Confidential Maps*

**Deleted for public review and bound separately in the Confidential Appendix*

List of Figures

<u>Figure</u>	<u>Page</u>
Figure 2.0-1 General Location Map	2.0-2
Figure 2.0-2 Project Location Map (USGS).....	2.0-3
Figure 2.0-3 Project Development Map	2.0-4
Figure 5.1-1 Cultural Resource Location Map*	5.0-2
Figure 5.1-2 Cultural Resource Location on Grading Map*	5.0-5
Figure 6.0-1 Cultural Resource Testing Location Map*	6.0-2
Figure 6.1-1 Proposed Shovel Test Pit Location Map 1*	6.0-4
Figure 6.1-2 Proposed Shovel Test Pit Location Map 2*	6.0-5
Figure 6.1-3 Proposed Shovel Test Pit Location Map 3*	6.0-6
Figure 6.1-4 Proposed Shovel Test Pit Location Map 4*	6.0-7
Figure 6.1-5 Proposed Shovel Test Pit Location Map 5*	6.0-8

**Deleted for public review and bound separately in the Confidential Appendix*

List of Plates

<u>Plate</u>	<u>Page</u>
Plate 5.2-1 Overview of terrain, facing east.....	5.0-10
Plate 5.2-2 Overview of developed areas, facing north	5.0-10
Plate 5.2-3 Overview of Site CA-RIV-4067, facing west.....	5.0-11
Plate 5.2-4 Overview of Site CA-RIV-5420, facing north.....	5.0-11
Plate 5.2-5 Overview of Site CA-RIV-5811, facing northwest	5.0-12

List of Plates (continued)

<u>Plate</u>		<u>Page</u>
Plate 5.2–6	Overview of F-8 and F-9 at Site CA-RIV-5812, facing west	5.0–12
Plate 5.2–7	Overview of Site CA-RIV-5819, facing west.....	5.0–13
Plate 5.2–8	Overview of Site CA-RIV-4068, facing north.....	5.0–13
Plate 5.2–9	Overview of the completed section of Brown Street, facing north.....	5.0–14
Plate 5.2–10	Overview of Temp 2, facing north.....	5.0–15
Plate 5.2–11	Overview of Temp 3, facing north.....	5.0–15
Plate 5.2–12	Overview of Temp 9, facing north.....	5.0–16
Plate 5.2–13	Overview of Temp 10, facing west.....	5.0–16
Plate 5.2–14	Overview of Temp 11, facing north.....	5.0–17
Plate 5.2–15	Overview of Temp 12, facing north.....	5.0–17
Plate 5.2–16	Overview of Temp 13, facing northeast	5.0–18
Plate 5.2–17	Overview of Temp 14, facing northwest	5.0–18
Plate 5.2–18	Overview of WSA igloos, facing north	5.0–19
Plate 5.2–19	Overview of WSA buildings, facing east	5.0–19

List of Tables

<u>Table</u>		<u>Page</u>
Table 5.1–2	Previous Studies Within the West Campus Upper Plateau Project	5.0–1
Table 6.1–1	STP Recommendations for CRHR and NRHP Eligibility Testing.....	6.0–9

1.0 MANAGEMENT SUMMARY/ABSTRACT

In response to a request from Meridian Park LLC, Brian F. Smith and Associates, Inc. (BFSA) conducted an archaeological survey of the approximately 400-acre West Campus Upper Plateau Project (Assessor's Parcel Numbers [APNs] 276-120-001, 276-120-007, 294-020-001, 297-080-001 through -004, 297-080-013, 297-080-015, 297-080-016, 297-090-001 through -004, 297-090-006 through -009, 297-100-084 and -85, 297-090-093, and 297-110-036). The project is located generally between Interstate 215 (I-215) and Trautwein Road, situated southwest of the intersection of Meridian Parkway and East Alessandro Boulevard within an unincorporated portion of Riverside County. The property is situated within Sections 15, 16, 17, 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 cultural resource study was undertaken in order to determine if cultural resources exist within the study area and to assess the effect of the proposed development of the parcels. The archaeological survey of the project Area of Potential Effect (APE) was conducted on July 26 and 27, 2021 and resulted in the identification of six previously recorded prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819) and eight additional prehistoric sites (Temp-2, Temp-3, and Temp-9 to Temp-14) within or directly adjacent to the project APE.

The study is a component of the environmental review process for the proposed West Campus Upper Plateau Project. As currently proposed, the project entails developing the property into a mixed industrial and commercial use area with warehouse buildings, paved parking lots, internal roadways, and park space. The March Joint Powers Authority (MJPA), as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA). All investigations conducted by BFSA related to this project conformed to the NHPA, Section 106, the National Environmental Policy Act (NEPA) of 1969, and CEQA. BFSA was retained to complete a Class I inventory of a one-mile radius around the project area, along with a Class III intensive pedestrian archaeological survey of the proposed project area to assess the potential adverse effects to any cultural resources within the APE. The scope of work for this investigation included:

- A records search to acquire data regarding previously recorded archaeological sites on or near the property;
- A systematic survey of the area of direct impacts, including the 400-acre APE; and
- Efforts to locate and record any archaeological resources encountered on the property. The scope of work performed by BFSA is consistent with the NHPA, Section 106, the NEPA of 1969, and CEQA.

An archaeological records search was requested by BFSA from the Eastern Information Center (EIC) at the University of California at Riverside (UCR) in order to assess the previous archaeological studies within, or in the immediate vicinity of, the project area (Appendix II). The records search identified 241 resources within one mile of the APE. According to the records search, 17 of the previously recorded resources are within the APE and consist of 11 prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5426, CA-RIV-5451, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, CA-RIV-8093, and CA-RIV-11,923), five prehistoric isolates (P-33-012662, P-33-028974, P-33-028976, P-33-028977, P-33-028979), and one historic isolate (P-33-024836). Further, 87 previous studies were identified, 14 of which include the project APE. Based upon the information compiled from the previous studies, CA-RIV-5421, elements of CA-RIV-5425 (later recorded as CA-RIV-8093 and RIV-11,923), CA-RIV-5426, and CA-RIV-5451 have previously been subjected to archaeological testing and do not require any further archaeological work. Site CA-RIV-5421 was previously tested and evaluated as not eligible for inclusion in the National Register of Historic Places (NRHP), while CA-RIV-8093, CA-RIV-11,923, CA-RIV-5426, and CA-RIV-5451 were tested in conjunction with an industrial warehouse project situated within the northern extent of the APE. Sites CA-RIV-4067, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819, located within the APE, and CA-RIV-4068, located adjacent to the APE, have also been previously evaluated as not eligible for inclusion in the NRHP; however, the findings were made without thorough documentation of the resource or significance testing. The APE also contains the Cold War era March Air Reserve Base (MARB) Weapons Storage Area (WSA). The historic-era complex has been studied and evaluated as not eligible for inclusion in the NRHP; however, it has not been formally recorded with the EIC in accordance with the Office of Historic Preservation's (OHP's) manual, *Instructions for Recording Historical Resources*.

Since multiple cultural resource sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-14) were identified during the archaeological survey, the project may represent a direct or indirect adverse impact, or adverse effect, to the cultural resources/historic properties. As such, it is recommended that an archaeological significance evaluation of the sites be completed to evaluate if the resources are eligible for listing on the California Register of Historical Resources (CRHR) and NRHP. If the sites are found to be not significant, then developmental impacts would not be adverse. If the sites are significant, measures would be required to mitigate impacts prior to development. An Archaeological Test Plan (ATP) has been provided in Section 6.1. The goal of the ATP would be to determine if the sites within the development envelope are significant, and if they are, to present measures to reduce the level of impacts associated with the proposed future development. In relation to the historic MARB WSA, it is recommended that each of the structures individually and as a unit be recorded according to the OHP's manual, *Instructions for Recording Historical Resources*, using Department of Parks and Recreation (DPR) forms.

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 archaeological laboratory of BFSa in Poway, California.

2.0 INTRODUCTION

BFSA conducted an archaeological assessment for the West Campus Upper Plateau to assess the potential for cultural resources within the APE. The archaeological survey for APNs 276-120-001, 276-120-007, 294-020-001, 297-080-001 through -004, 297-080-013, 297-080-015, 297-080-016, 297-090-001 through -004, 297-090-006 through -009, 297-100-084 and -85, 297-090-093, and 297-110-036 was conducted in order to comply with the NHPA, Section 106, the NEPA of 1969, and CEQA. 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 consists of a combined 400-acre APE situated south of East Alessandro Boulevard and west of I-215 in unincorporated Riverside County, California. The project comprises the northwestern part of the MARB. The project is located within portions of Sections 15, 16, 17, and 21, Township 2 South, Range 4 West, of the San Bernardino Baseline and Meridian, in the USGS 7.5-minute *Riverside East, California* topographic quadrangle map (Figures 2.0–1 and 2.0–2). The total area to be studied is approximately 360 acres of proposed commercial, industrial, and park development areas, and off-site improvements consisting of the extension of Cactus Avenue and Brown Street to provide access to the project. Further, the MJPA has designated a buffer around the project of approximately 100 feet as the APE (Figures 2.0–3). As such, the proposed off-site road improvements and buffer areas add approximately 40 acres to the study area. Also, note that a portion of the off-site road improvements to the north and east requested for study by the MJPA have already been completed as part of the previous development of Brown Street and Cactus Avenue.

BFSA conducted the archaeological survey and records search review of the project on July 26 and 27, 2021. Principal Investigator Brian F. Smith directed the Class III archaeological assessment for the project. Project Archaeologist Andrew J. Garrison, along with field archaeologists James Shrieve and David Grabski, conducted the pedestrian survey of the West Campus Upper Plateau Project. Andrew Garrison and Brian Smith prepared the technical report. Andrew Garrison created the report graphics and Summer J. Forsman conducted technical editing and distribution of the report. Qualifications of key personnel are provided in Appendix I.

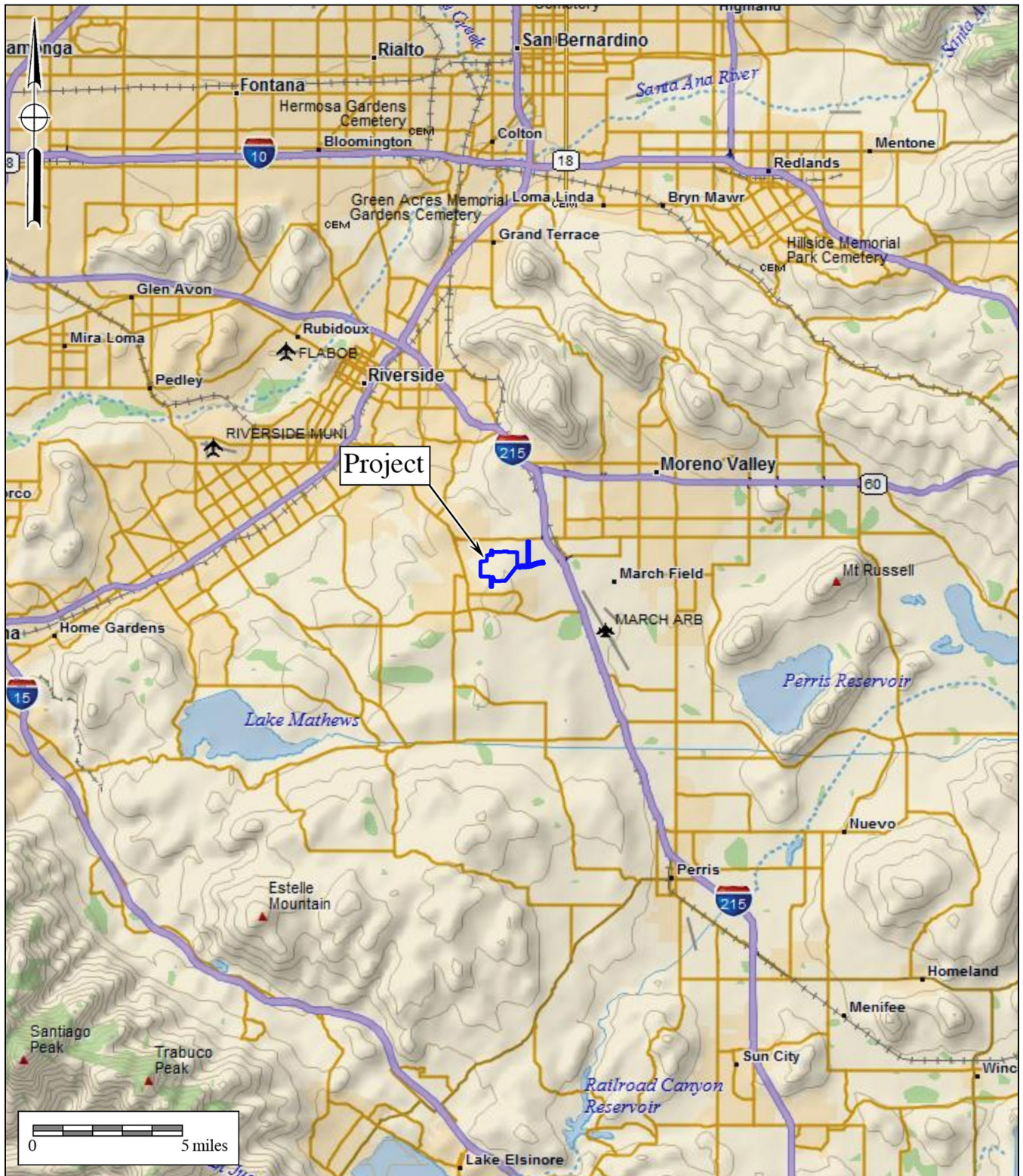


Figure 2.0-1
General Location Map

The West Campus Upper Plateau Project

DeLorme (1:250,000)



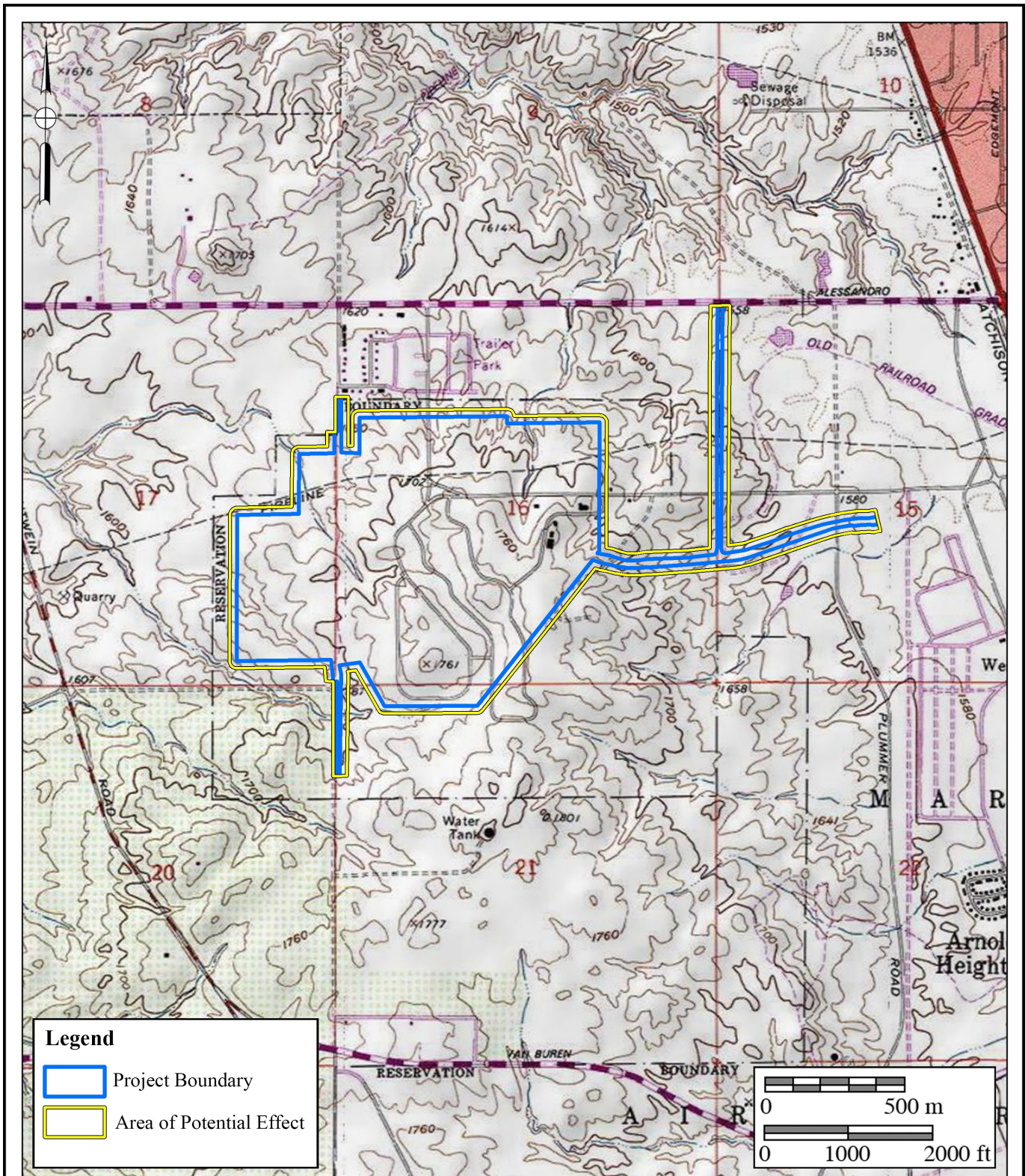
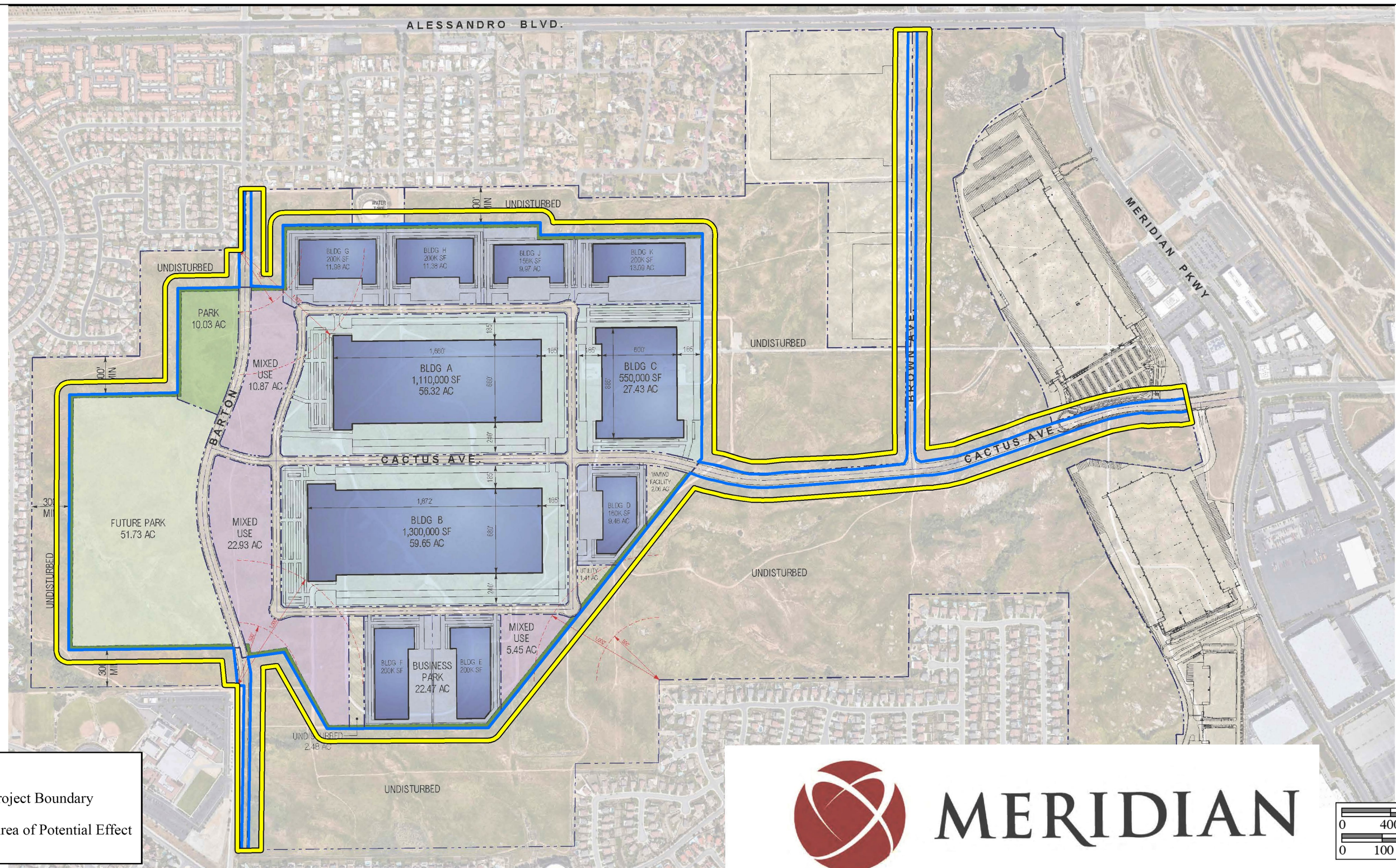


Figure 2.0–2
Project Location Map
 The West Campus Upper Plateau Project
 USGS Riverside East Quadrangle (7.5-minute series)





MERIDIAN

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 context 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 within the northwestern portion of the MARB. This places the project within the West March Planning Subarea. The subject property is dominated by a plateau (referred to as the Upper Plateau) which is surrounded by low rolling hills separated by seasonal drainages. The Upper Plateau area is partially developed since the location previously housed the base's WSA. The APE location is just outside of the city of Riverside, situated southeast of Mission Grove, north of the Orange Crest neighborhood, and southwest of Sycamore Canyon Business Park. As such, it primarily consists of open land with residential developments to the northwest, west, and south, while light industrial warehouses occupy the land to the east and northeast.

The subject property 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 project 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 related to granite (Morton and Cox 2001). Scattered, linear outcrops of Cretaceous granitic dikes ("Kg"), Paleozoic biotite schist ("Pzs"), and mixed-provenance crystalline rocks of pre-Cenozoic age ("KgPz") are mapped as 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 primarily are categorized as Fallbrook rocky sandy loam, Vista coarse sandy loam, Monserate sandy loam, and Cieneba rocky sandy loam (NRCS 2019).

Vegetation found within the subject property is dominated by non-native weeds and grasses; however, pockets of sage scrub is found throughout as well as some limited riparian habitat situated near and within the seasonal drainages. During the prehistoric period, vegetation near the project site 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).

3.2.2 Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 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. These people 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 9,000 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 of the area, 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, which is a well-documented situation at Batiquitos Lagoon (Miller 1966; Gallegos 1987). Over a two-thousand-year period at Batiquitos Lagoon, 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 in 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 Gardener (2010). Sutton and Gardener (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 Gardener (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 Yucaipa’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 Gardener (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 Gardener (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 Gardener 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 Gardener 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; however, archaeological and anthropological data proposes a scientific/archaeological perspective. Archaeological and anthropological evidence suggests 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 around 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 about 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. 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 introduction of ceramics. 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: 1790 to Present)

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. This group was 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. Groups in the vicinity of the project site, neighboring the Luiseño, include the Cahuilla and the Gabrielino. Ethnographic data for the three groups is presented below.

Luiseño: An Archaeological and Ethnographic Perspective

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. The Luiseño were a Takic-speaking people more closely related linguistically and ethnographically to the Cahuilla, Gabrielino, and Cupeño to the north and east rather than the Kumeyaay who occupied territory to the south. 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 that stemmed from the use of datura (a hallucinogen), 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 composed 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 of 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 mountain 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, although, 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 (?ísta). Lineage and kinship were memorized at a young age among the Cahuilla, providing a backdrop for political relationships. Clans were composed 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).

Gabrielino: An Archaeological and Ethnographic Perspective

The territory of the Gabrielino at the time of Spanish contact covers much of present-day Los Angeles and Orange counties. The southern extent of this culture area is bounded by Aliso Creek, the eastern extent is located east of present-day San Bernardino along the Santa Ana River, the northern extent includes the San Fernando Valley, and the western extent includes portions of the Santa Monica Mountains. The Gabrielino also occupied several Channel Islands including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California (Bean and Smith 1978; Kroeber 1976).

Subsistence and Settlement

The Gabrielino lived in permanent villages and occupied smaller resource-gathering camps at various times of the year depending upon the seasonality of the resource. Larger villages were comprised of several families or clans, while smaller, seasonal camps typically housed smaller family units. The coastal area between San Pedro and Topanga Canyon was the location of primary subsistence villages, while secondary sites were located near inland sage stands, oak groves, and pine forests. Permanent villages were located along rivers and streams and in sheltered areas along the coast. As previously mentioned, the Channel Islands were also the locations of relatively large settlements (Bean and Smith 1978; Kroeber 1976).

Resources procured along the coast and on the islands were primarily marine in nature and included tuna, swordfish, ray and shark, California sea lion, Stellar sea lion, harbor seal, northern elephant seal, sea otter, dolphin and porpoise, various waterfowl species, numerous fish species, purple sea urchin, and mollusks, such as rock scallop, California mussel, and limpet. Inland resources included oak acorn, pine nut, Mohave yucca, cacti, sage, grass nut, deer, rabbit, hare, rodent, quail, duck, and a variety of reptiles such as western pond turtle and numerous snake species (Bean and Smith 1978; Kroeber 1976).

Social Organization

The social structure of the Gabrielino is little known; however, there appears to have been at least three social classes: 1) the elite, which included the rich, chiefs, and their immediate family; 2) a middle class, which included people of relatively high economic status or long-

established lineages; and 3) a class of people that included most other individuals in the society. Villages were politically autonomous units comprised of several lineages. During times of the year when certain seasonal resources were available, the village would divide into lineage groups and move out to exploit them, returning to the village between forays (Bean and Smith 1978; Kroeber 1976).

Each lineage had its own leader, with the village chief coming from the dominant lineage. Several villages might be allied under a paramount chief. Chiefly positions were of an ascribed status, most often passed to the eldest son. Chiefly duties included providing village cohesion, leading warfare and peace negotiations with other groups, collecting tribute from the village(s) under his jurisdiction, and arbitrating disputes within the village(s). The status of the chief was legitimized by his safekeeping of the sacred bundle, a representation of the link between the material and spiritual realms and the embodiment of power (Bean and Smith 1978; Kroeber 1976).

Shamans were leaders in the spirit realm. The duties of the shaman included conducting healing and curing ceremonies, guarding the sacred bundle, locating lost items, identifying and collecting poisons for arrows, and making rain (Bean and Smith 1978; Kroeber 1976).

Marriages were made between individuals of equal social status and, in the case of powerful lineages, marriages were arranged to establish political ties between the lineages (Bean and Smith 1978; Kroeber 1976).

Men conducted the majority of the heavy labor, hunting, fishing, and trading with other groups. Women's duties included gathering and preparing plant and animal resources, and making baskets, pots, and clothing (Bean and Smith 1978; Kroeber 1976).

Material Culture

Gabrielino houses were domed, circular structures made of thatched vegetation. Houses varied in size and could house from one to several families. Sweathouses (semicircular, earth-covered buildings) were public structures used in male social ceremonies. Other structures included menstrual huts and a ceremonial structure called a *yuvar*, an open-air structure built near the chief's house (Bean and Smith 1978; Kroeber 1976).

Clothing was minimal; men and children most often went naked, while women wore deerskin or bark aprons. In cold weather, deerskin, rabbit fur, or bird skin (with feathers intact) cloaks were worn. Island and coastal groups used sea otter fur for cloaks. In areas of rough terrain, yucca fiber sandals were worn. Women often used red ochre on their faces and skin for adornment or protection from the sun. Adornment items included feathers, fur, shells, and beads (Bean and Smith 1978; Kroeber 1976).

Hunting implements included wood clubs, sinew-backed bows, slings, and throwing clubs. Maritime implements included rafts, harpoons, spears, hook and line, and nets. A variety of other tools included deer scapulae saws, bone and shell needles, bone awls, scrapers, bone or shell flakers, wedges, stone knives and drills, metates, mullers, manos, shell spoons, bark

platters, and wood paddles and bowls. Baskets were made from rush, deer grass, and skunkbush. Baskets were fashioned for hoppers, plates, trays, and winnowers for leaching, straining, and gathering. Baskets were also used for storing, preparing, and serving food, and for keeping personal and ceremonial items (Bean and Smith 1978; Kroeber 1976).

The Gabrielino had exclusive access to soapstone, or steatite, procured from Santa Catalina Island quarries. This highly prized material was used for making pipes, animal carvings, ritual objects, ornaments, and cooking utensils. The Gabrielino profited well from trading steatite since it was valued so much by groups throughout southern California (Bean and Smith 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 region that includes the project 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 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 the 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 County (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 MARB. During World War II, Camp Haan and Camp Anza were constructed in what is now the current location of the National Veteran's 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

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) constructed 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 Riverside 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).

In early 1917, the United States entered World War I, necessitating the construction of additional military bases across the country to facilitate the war efforts. Frank Miller, owner of the Mission Inn, and other Riverside residents successfully petitioned the United States government to expand Alessandro Flying Training Field, a nearby airstrip used by private pilots for cross-country flights, for military use (MARB 2010). “On March 20, 1918, Alessandro Flying Training Field became March Field, named in honor of Second Lieutenant Peyton C. March ... who had been killed in a flying accident in Texas the previous month” (MARB 2010). However, March Field saw only limited use, as World War I ended on November 11, 1918, shortly after the base was established (Patterson 1971). Between World War I and World War II, March Field was actively used for pilot training and tactical unit repair and activation (MARB

2010). With the advent of World War II, March Field grew in size and importance, housing troops from around the United States and further expanding the city's economy and population, with many service members choosing to settle in the city and the region in general. In 1941, March Field became March Army Air Field, in 1942, it became March Army Air Base, and in 1947, it became March Army Air Force Base (to reflect the establishment of the United States Air Force). In addition, during World War II, Camp Anza and Camp Haan were constructed, with the former located in the western part of the city of Riverside and the latter just southeast of the project APE.

Throughout the Cold War, the March Army Air Field continued to grow. In 1949, the Headquarters Fifteen Air Force (HQ 15 AF) was assigned to the Base. Further, that same year the Base was placed under the Strategic Air Command jurisdiction. "For the remainder of the Cold War, SAC defined March AFB's role in the nation's defense. SAC was the striking force of the Air Force, the deterrent to the perceived Soviet Treat, and March AFB played an integral part of that role in the years to come" (William Manley Consulting and Earth Tech 1995). In 1996, the Base became the MARB (March Field Air Museum N.d.). Although the official name changed multiple times, residents have continued to refer to it as "March Field" (Gunther 1984).

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).

3.3 Applicable Regulations

The goal of numerous laws, regulations, and statutes at federal and state 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).

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 and CEQA 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:

- 1) Resources that are associated with events that have made a significant contribution to the broad patterns of our history.
- 2) Resources that are associated with the lives of persons significant in our past.
- 3) Resources 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.
- 4) Resources 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 (CEQA)

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 on 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 on 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.

Section 15064.5 (d) and (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 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 Native American Heritage Commission (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.

3.4 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 the survey of a 400-acre area. Given the area involved and the narrow focus of a Class III survey, the research design for this project was limited and general in nature. Since the main objective of the investigation was to identify the presence of, and potential impacts to, cultural resources, the goal here 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 survey-level investigations 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 cultural resources. The following research questions take into account the small size and location of the project area discussed above.

Research Questions:

- Can located cultural resources be situated with a specific time period, population, or individual?
- Do the types of located cultural 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 survey 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 cultural resources occurring within the project area,
- 2) To determine, if possible, site type and function, context of the deposit, and chronological placement of each cultural resource identified,
- 3) To place each cultural resource identified within a regional perspective, and
- 4) To provide recommendations for the treatment of each of the cultural resources identified.

4.0 METHODOLOGY

The archaeological assessment conducted for the West Campus Upper Plateau Project consisted of a Class III reconnaissance of the property by qualified archaeologists and an institutional records search. This archaeological study conformed to the NHPA, Section 106, the NEPA of 1969, and CEQA. The NHPA, Section 106, and the statutory requirements of CEQA were followed in evaluating potential impacts.

4.1 Field Methodology

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 400-acre APE was included in the survey process. Photographs were taken to document project conditions during the survey (see Section 5.2). Ground visibility throughout the property was moderate to poor throughout the subject property due to areas containing dense vegetation and the previous military development. All rodent spoil piles and alluvial cuts were closely inspected for evidence of archaeological materials. No additional constraints were encountered during the field survey.

4.2 Archaeological Records Search

The records search conducted by the EIC at UCR was reviewed for an area of one mile surrounding the project in order to determine the presence of any previously recorded sites. Results of the records search are provided in Appendix II 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 (GLO) website were also reviewed for pertinent project information. In addition, the BFSA research library was consulted for any relevant historical information.

4.3 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 III.

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 search results identified 241 resources within one mile of the APE. The records search indicated that 17 of the previously recorded resources are within the subject property. In all, the prehistoric resources within one mile of the project consist of 16 prehistoric isolates and 200 prehistoric bedrock milling sites, five of which contained associated prehistoric artifacts, one prehistoric artifact scatter, and one multicomponent site containing a prehistoric milling site and a historic residence. The historic resources consist of 11 residences, one historic high school, one historic ranch, three historic foundation sites, two historic railroad alignments, two historic isolates, and five historic trash scatters (see Table 5.1–1 in Appendix IV). Of the 17 resources recorded within the APE, 11 are prehistoric bedrock milling sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5425, CA-RIV-5426, CA-RIV-5451, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, CA-RIV-8093, and CA-RIV-11,923), five are prehistoric isolates (P-33-012662, P-33-028974, P-33-028976, P-33-028977, and P-33-028979) and one is a historic isolate (P-33-024836) (Figure 5.0–1).

In total, 87 previous studies were identified within a one-mile radius of the project area (see Appendix II). According to the records search, 14 of the previous studies include all or portions of the APE (Table 5.1–2). Two of the previous studies were tied to focused linear pipeline surveys and do not directly address the current APE (Drover 1986; Drover 1989). The remaining studies that are associated with resources within the APE are discussed in detail below.

Table 5.1–2

Previous Studies Within the
West Campus Upper Plateau Project

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.

Figure 5.1-1
Cultural Resource Location Map
(Deleted for Public Review; Bound Separately)

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. 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. Tetra Tech, Inc. 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

- 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.

Of the archaeological sites previously identified within the APE, all have been subjected to some level of study. Elements of CA-RIV-5425, later recorded as CA-RIV-8093, and CA-RIV-11,923 (see below), are located adjacent to the portion of Brown Street that has already been developed. As such, those sites have been fully studied and impacts mitigated in compliance with previous adjacent projects. Therefore, six sites (CA-RIV-4067, CA-RIV-5420, CA-RIV-5421, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819) are situated within areas that have not been recently developed. Figure 5.1–2 shows the location of the previously recorded resources in relation to the project and the APE on a recent aerial photograph to highlight which areas have been developed.

In 1990, Tetra Tech surveyed almost the entirety of the current APE. Through the course of the study, Budinger identified Site CA-RIV-4067 and Isolate P-33-012662 within the APE. Site CA-RIV-4067 was recorded as a single Bedrock Milling Feature (BMF). Budinger also identified the bedrock milling site CA-RIV-4068 which, as outlined within the survey results, is located just outside of the currently delineated APE.

In 1995, William Manley Consulting and Earth Tech prepared a Historic Building Inventory and Evaluation study which included the subject property. The focus was to determine if any of the structures within the MARB were eligible for inclusion within the NRHP with a focus on Cold War era resources that may have previously been excluded from review. As such, the structures that comprise the WSA found within the subject property, including storage igloos and weapon maintenance shops, were studied and found not eligible for inclusion in the NRHP (William Manley Consulting and Earth Tech 1995; MIPA 1999).

Figure 5.1-1
Cultural Resource Location Map
(Deleted for Public Review; Bound Separately)

According to the study:

The complex was initially considered potentially eligible as a district of properties exceptional for their design and engineering, as well as for their critical role in supporting Cold War missions at March AFB. Upon further review and analysis, however, it was determined that the WSA is not an outstanding representative of a SAC property type built nationwide. (William Manley Consulting and Earth Tech 1995)

A letter from the State Historic Preservation Office (SHPO) concurred with the findings of the Manley study (MJPA 1999). Although already evaluated, based upon the records search results, the WSA was not formally recorded at the time it was studied.

In 1996, approximately 2,500 acres of the MARB were surveyed by McDonald and Giacomini (1996). As a result of their survey, 60 bedrock milling sites, five historic sites, and three isolated artifacts were documented within their much larger study area. Of the resources they identified, they recorded CA-RIV-5420 (seven milling features containing 23 slicks and one rub), CA-RIV-5421 (one milling feature containing three slicks), CA-RIV-5811 (two milling features containing nine slicks), CA-RIV-5812 (five features containing 18 slicks), and CA-RIV-5819 (three features containing 8 slicks) within the current project (McDonald and Giacomini 1996). McDonald and Giacomini (1996) did not identify any concentrations of artifacts or midden at any of the sites they identified and recommended all, except for two sites outside of the current APE (CA-RIV-5439 and CA-RIV-5448), as not eligible for inclusion in the NRHP. However, despite the recommendations, McDonald and Giacomini did not perform any Phase II test excavations.

Based upon the previously gathered information, a Draft EIR was prepared for the MARB; however, the document supplied by the EIC 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-5421, CA-RIV-5811, CA-RIV-5812, and RIV-5819 as not eligible for inclusion in the NRHP. 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 (JRP Historical Consulting 1996; MJPA 1999).

In 1997, six sites within the MARB were tested for significance. One of the sites included within the testing program is located within the current APE (CA-RIV-5421) (Pritchard Parker et al. 1997). Based upon the significance testing, all six of the sites tested, including CA-RIV-5421, were evaluated as not eligible for inclusion in the NRHP (Pritchard Parker et al. 1997). In 1998, a letter from SHPO concurred with the findings (MJPA 1999).

In 1998, Adella Schroth reviewed the information pertaining to the approximately 3,400-acre West March Planning Subarea in which the current APE is part of (Schroth 1998; MJPA 1999). The goal of the study was to make a recommendation as to whether the area may

represent a Traditional Cultural Property. Schroth (1998) based the findings upon information provided by local Native American groups and past studies conducted within the subject property. Schroth concluded that:

Based on the surveys and test report, the prehistoric archaeological sites 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 the 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, the MJPA prepared the Master EIR which summarized the previous work on the project. The Master EIR asserted that no significant resources, those eligible for the CRHR or NRHP, are present within the West March Planning Subarea, including 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 improvement areas of the current APE that have already been developed. Both the Dice and Sanka (2006) and the Austerman and Goodwin (2014) studies were tied to an industrial warehouse development located between East Alessandro Boulevard and an original alignment

of Cactus Avenue. Associated with this development was the extension of Brown Street south of East Alessandro Boulevard. During the course of the 2006 and 2014 studies, CA-RIV-8093 and CA-RIV-11,923 were recorded, tested, and evaluated as not significant under CEQA criteria. Both CA-RIV-8093 and CA-RIV-11,923 are portions of the previously recorded CA-RIV-5425 and were within or directly adjacent to the area of impact of the warehouse and road improvement project. Dice and Sanka (2006) justified dividing the site based upon poor mapping of the original site location, distance between loci, and lack of detail within the original site form. Regardless, as a result of both studies, sites CA-RIV-8093, CA-RIV-11,923, CA-RIV-5426, and CA-RIV-5451 were found ineligible for listing on the CRHR. As such, the construction of the warehouse and Brown Street destroyed CA-RIV-8093; however, CA-RIV-11,923, CA-RIV-5426, CA-RIV-5451 are still present just east of Brown Street on the far eastern edge of the APE. Regardless, these sites have already been evaluated as not eligible for listing on the CRHR, and the current project design will not impact them (Figure 5.1-2). Therefore, no further archaeological work is required in this area.

Finally, the remaining two studies include the documents prepared in support of the adjacent industrial development commonly referred to as the Lower Plateau. This includes the initial study (Fairbanks 2016) and a survey report prepared by CRM Tech (Tang and Hogan 2017). The Upper Plateau APE includes a small section of Brown Street and Cactus Avenue that was completed during this earlier phase, and only a single historic isolate (P-33-024836) was found within this area.

All of the reports discussed above trace the history of investigation at the sites within the subject property. However, the site forms for CA-RIV-5812 provide additional information in regards to investigations conducted in 2018 at that site. Previously, CRM Tech recorded CA-RIV-11,923, east of CA-RIV-5812, as a bedrock milling site with a light lithic scatter. Later, CRM Tech extended the boundaries of CA-RIV-5812 to include CA-RIV-11,923. Portions of the now larger site were impacted by trenching for a fence. As a result, CRM Tech began a testing and evaluation program on the site which consisted of three Shovel Test Pits (STPs), 2 surface scrapes, and five test units. Based upon CRM Tech's site map, two milling features (F-8 and F-9) are located within the current Upper Plateau APE. CRM Tech excavated a test unit (U-4) between F-8 and F-9. The unit yielded a bifacial lithic tool, and 21 lithic artifacts before being terminated at 40cm. CRM Tech was not able to complete the testing and evaluation of the site as they were instructed to stop all work. Further, at the request of the Tribal Historic Preservation Officer from the Soboboa Band of Luiseño Indians, they attempted to replace all recovered artifacts as close to their original location as necessary. The complete records search results are provided in Appendix II.

BFSA also reviewed the following historic sources:

- The NRHP Index
- The OHP, Archaeological Determinations of Eligibility

Information on Pages 52-62
Contains Confidential Site Records and Has
Been Removed

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6.0 MANAGEMENT CONSIDERATIONS AND RECOMMENDATIONS

As a result of an archaeological survey of the West Campus Upper Plateau Project, BFSA confirmed the continued presence of six previously recorded prehistoric bedrock milling sites which have not been subjected to a thorough Phase II archaeological testing program (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819). Further, eight additional prehistoric sites (Temp-2, Temp-3, and Temp-9 to Temp-14) were identified within or directly adjacent to the APE (Figure 6.0—1). The future development of the subject property could result in potentially direct and indirect impacts to these sites.

Although the previously recorded sites (CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, and CA-RIV-5819) have been evaluated as not eligible for inclusion in the NRHP, most have only minimally been recorded and not tested for subsurface components. As such, to determine the potential significance of the resources and provide recommendations to mitigate any potential adverse effects, including direct and indirect impacts to the resources, it is recommended that the previously untested prehistoric sites be subjected to a Phase II testing and evaluation program. A recommended ATP is presented in the following section.

In relation to the historic WSA, the complex of historic structures has been previously studied and evaluated (William Manley Consulting and Earth Tech 1995). The previous William Manley Consulting and Earth Tech (1995) evaluation of the WSA concluded that the bunkers and related structures were not eligible for inclusion in the NRHP. The SHPO concurred with the evaluation. As such, reevaluation of the historic bunkers is not recommended. However, given that the resource has not been adequately recorded with the EIC at UCR, it is recommended that each of the structures individually and as a unit be recorded according to the OHP's manual, *Instructions for Recording Historical Resources*, using DPR forms.

6.1 Archaeological Testing Program

Based upon the information and data gathered during the updated archaeological investigations of the project, prehistoric sites CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-14 could be directly or indirectly impacted as a result of the proposed West Campus Upper Plateau development. As part of the environmental review process, an ATP will be conducted to fully document the sites and evaluate their significance under CRHR and NRHP criteria.

Figure 6.0-1

Cultural Resource Testing Location Map

(Deleted for Public Review; Bound Separately)

The testing program will include the following tasks:

- All BMFs that may be directly or indirectly impacted by the proposed development will be recorded in detail, which will include photography, sketching, and mapping via Global Positioning System (GPS) data.
- The entirety of the sites will be closely inspected to search for evidence of artifacts. If any surface artifacts are discovered, the collection procedures will include mapping each surface artifact via GPS and collecting all artifacts by provenience location.
- Although a considerable effort has been made to locate all BMFs within the subject property, it is understood that should any additional features be revealed as a consequence of vegetation clearing during the execution of the ATP, the BMFs shall be treated under the same protocol as all other features.
- Subsurface significance testing at each site will be conducted to identify any subsurface archaeological deposits that would reflect site occupation over time (Figures 6.1–1 to 6.1–5). The testing process will include a combination of 30-centimeter-diameter STPs and standard one-square-meter test units, when applicable. At each site, STPs will be excavated in 10-centimeter levels to search for evidence of subsurface deposits. Excavated soil levels will be analyzed for Munsell color identification to assist in the delineation of the archaeological deposits. The final number of STPs and potential test units will be determined by the archaeologist, with tribal input, based upon in-field test findings. In the event that any proposed STPs encounter shallow bedrock within the first 10 centimeters of excavation, the STP will be shifted to facilitate appropriate excavation. The quantity of STPs per site will correspond to the quantity of BMFs observed. If any shovel tests result in the detection of archaeological deposits, the testing program will be expanded to include standard one-square-meter test unit excavations, which are intended to provide a larger data set compared to the STPs, thereby facilitating a qualitative assessment of the archaeological deposits. The location and quantity of one-square-meter test units will be determined after the STP excavations have been completed.

Figure 6.1-1

Proposed Shovel Test Pit Location Map 1

(Deleted for Public Review; Bound Separately)

Figure 6.1-2

Proposed Shovel Test Pit Location Map 2

(Deleted for Public Review; Bound Separately)

Figure 6.1-3
Proposed Shovel Test Pit Location Map 3
(Deleted for Public Review; Bound Separately)

Figure 6.1-4

Proposed Shovel Test Pit Location Map 4

(Deleted for Public Review; Bound Separately)

Figure 6.1-5

Proposed Shovel Test Pit Location Map 5

(Deleted for Public Review; Bound Separately)

Table 6.1-1
STP Recommendations for CRHR and NRHP Eligibility Testing

Site	Estimated Number of STPs	Anticipated Test Unit Excavations
CA-RIV-4067	4	1
CA-RIV-4068	4	1
CA-RIV-5420	15	1
CA-RIV-5811,	6	1
CA-RIV-5812 (F-8 and F-9)	6 (Supplement 2018 CRM Tech excavations)	1
CA-RIV-5819	10	1
Temp-2	4	1
Temp-3	4	1
Temp-9	4	1
Temp-10	4	1
Temp-11	4	1
Temp-12	4	1
Temp-13	4	1
Temp-14	4	1
Total	77	14

- Based upon the number of features and the sites identified during the survey, it is estimated that a total of 77 STPs will be adequate to test the soil surrounding the milling features across the 14 sites for subsurface deposits. All soils from the STPs and test units will be screened through one-eighth-inch mesh screens to recover all archaeological materials. All tests will be recorded in the field using appropriate archaeological methods, mapped via GPS, and plotted on the site investigation maps. In the event that any artifacts are identified by the Native American observers as ceremonial or possible burial items, these items will be recorded but not photographed.
- As part of the testing program, the Native American monitors of record for the project, the Pechanga Band of Luiseño Mission Indians, the Soboba Band of Luiseño Indians, and the Morongo Band of Mission Indians, will be requested to be present for all archaeological testing conducted for the project.
- Any cultural materials recovered during the site investigations shall be subjected to standard laboratory analysis and documentation on-site. Any artifacts recovered from the site evaluation process will be repatriated to the consulting tribes, who may request reburial within the subject property. If the tribes cannot come to an agreement concerning the final disposition of the artifacts, then they will be curated at

the Western Science Center in Hemet, California.

- The data collected during the site investigations will be used to prepare site registration forms and updates (DPR Form 523) that will be submitted to the EIC at the UCR.
- The data collected during the site investigations shall be presented in a cultural resources testing and evaluation technical report. The technical report shall present the test data for CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-14 and use that specific site data to evaluate the sites for eligibility for the CRHR and the NRHP using significance under CEQA criteria listed in California PRC 21083.2 and Section 106 (36 CFR 60.2). The report will present any additional measures that would be needed to mitigate any impacts to significant cultural resources, as provided by the approved Cultural Resources Monitoring Program.

Summary

The goal of the testing program is to record all elements of CA-RIV-4067, CA-RIV-4068, CA-RIV-5420, CA-RIV-5811, CA-RIV-5812, CA-RIV-5819, Temp-2, Temp-3, and Temp-9 to Temp-14 and provide NRHP and CRHR eligibility evaluations for the sites. Subsequently, if additional measures are required to mitigate impacts to significant site areas that are within the approved development footprint, the test report will provide a discussion of these resources. All field investigations will be directed by Brian Smith and completed by qualified archaeologists from BFSa. The data from the investigations will be used to evaluate the sites according to the significance criteria provided in CEQA and Section 106.

A cultural resources technical report will be prepared to present all data collected during the testing program, including detailed maps of the surface expressions of the resources and the locations of all subsurface tests. If significant deposits are identified as a consequence of the testing program, the technical report will include an Archaeological Data Recovery Program to complete the mitigation of impacts to cultural resources.

7.0 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.



Andrew J. Garrison
M.A., RPA

November 22, 2021

Date

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APPENDIX I

Resumes of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator

Brian F. Smith and Associates, Inc.
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Education

Master of Arts, History, University of San Diego, California 1982

Bachelor of Arts, History, and Anthropology, University of San Diego, California 1975

Professional Memberships

Society for California Archaeology

Experience

Principal Investigator
Brian F. Smith and Associates, Inc.

1977–Present
Poway, California

Brian F. Smith is the owner and principal historical and archaeological consultant for Brian F. Smith and Associates. Over the past 32 years, he has conducted over 2,500 cultural resource studies in California, Arizona, Nevada, Montana, and Texas. These studies include every possible aspect of archaeology from literature searches and large-scale surveys to intensive data recovery excavations. Reports prepared by Mr. Smith have been submitted to all facets of local, state, and federal review agencies, including the US Army Corps of Engineers, the Bureau of Land Management, the Bureau of Reclamation, the Department of Defense, and the Department of Homeland Security. In addition, Mr. Smith has conducted studies for utility companies (Sempra Energy) and state highway departments (CalTrans).

Professional Accomplishments

These selected major professional accomplishments represent research efforts that have added significantly to the body of knowledge concerning the prehistoric life ways of cultures once present in the Southern California area and historic settlement since the late 18th century. Mr. Smith has been principal investigator on the following select projects, except where noted.

Downtown San Diego Mitigation and Monitoring Reporting Programs: Large numbers of downtown San Diego mitigation and monitoring projects, some of which included Broadway Block (2019), 915 Grape Street (2019), 1919 Pacific Highway (2018), Moxy Hotel (2018), Makers Quarter Block D (2017), Ballpark Village (2017), 460 16th Street (2017), Kettner and Ash (2017), Bayside Fire Station (2017), Pinnacle on the Park (2017), IDEA1 (2016), Blue Sky San Diego (2016), Pacific Gate (2016), Pendry Hotel (2015), Cisterra Sempra Office Tower (2014), 15th and Island (2014), Park and G (2014), Comm 22 (2014), 7th and F Street Parking (2013), Ariel Suites (2013), 13th and Marker (2012), Strata (2008), Hotel Indigo (2008), Lofts at 707 10th Avenue Project (2007), Breeza (2007), Bayside at the Embarcadero (2007), Aria (2007), Icon (2007), Vantage Pointe (2007), Aperture (2007), Sapphire Tower (2007), Lofts at 655 Sixth Avenue (2007), Metrowork (2007), The Legend (2006), The Mark (2006), Smart Corner (2006), Lofts at 677 7th Avenue (2005), Aloft on Cortez Hill (2005), Front and Beech Apartments (2003), Bella Via Condominiums (2003), Acqua Vista Residential Tower (2003), Northblock Lofts (2003), Westin Park Place Hotel (2001), Parkloff

Apartment Complex (2001), Renaissance Park (2001), and Laurel Bay Apartments (2001).

1900 and 1912 Spindrift Drive: An extensive data recovery and mitigation monitoring program at the Spindrift Site, an important prehistoric archaeological habitation site stretching across the La Jolla area. The project resulted in the discovery of over 20,000 artifacts and nearly 100,000 grams of bulk faunal remains and marine shell, indicating a substantial occupation area (2013-2014).

Emerald Acres: Archaeological survey and testing program of 14 archaeological sites across 333 acres in the Winchester area of Riverside County (2000-2018).

San Diego Airport Development Project: An extensive historic assessment of multiple buildings at the San Diego International Airport and included the preparation of Historic American Buildings Survey documentation to preserve significant elements of the airport prior to demolition (2017-2018).

Citracado Parkway Extension: A still-ongoing project in the city of Escondido to mitigate impacts to an important archaeological occupation site. Various archaeological studies have been conducted by BFSA resulting in the identification of a significant cultural deposit within the project area.

Westin Hotel and Timeshare (Grand Pacific Resorts): Data recovery and mitigation monitoring program in the city of Carlsbad consisted of the excavation of 176 one-square-meter archaeological data recovery units which produced thousands of prehistoric artifacts and ecofacts, and resulted in the preservation of a significant prehistoric habitation site. The artifacts recovered from the site presented important new data about the prehistory of the region and Native American occupation in the area (2017).

Citracado Business Park West: An archaeological survey and testing program at a significant prehistoric archaeological site and historic building assessment for a 17-acre project in the city of Escondido. The project resulted in the identification of 82 bedrock milling features, two previously recorded loci and two additional and distinct loci, and approximately 2,000 artifacts (2018).

The Everly Subdivision Project: Data recovery and mitigation monitoring program in the city of El Cajon resulted in the identification of a significant prehistoric occupation site from both the Late Prehistoric and Archaic Periods, as well as producing historic artifacts that correspond to the use of the property since 1886. The project produced an unprecedented quantity of artifacts in comparison to the area encompassed by the site, but lacked characteristics that typically reflect intense occupation, indicating that the site was used intensively for food processing (2014-2015).

Ballpark Village: A mitigation and monitoring program within three city blocks in the East Village area of San Diego resulting in the discovery of a significant historic deposit. Nearly 5,000 historic artifacts and over 500,000 grams of bulk historic building fragments, food waste, and other materials representing an occupation period between 1880 and 1917 were recovered (2015-2017).

Archaeology at the Padres Ballpark: Involved the analysis of historic resources within a seven-block area of the "East Village" area of San Diego, where occupation spanned a period from the 1870s to the 1940s. Over a period of two years, BFSA recovered over 200,000 artifacts and hundreds of pounds of metal, construction debris, unidentified broken glass, and wood. Collectively, the Ballpark Project and the other downtown mitigation and monitoring projects represent the largest historical archaeological program anywhere in the country in the past decade (2000-2007).

4S Ranch Archaeological and Historical Cultural Resources Study: Data recovery program consisted of the excavation of over 2,000 square meters of archaeological deposits that produced over one million artifacts, containing primarily prehistoric materials. The archaeological program at 4S Ranch is the largest archaeological study ever undertaken in the San Diego County area and has produced data that has exceeded expectations regarding the resolution of long-standing research questions and regional prehistoric settlement patterns.

Charles H. Brown Site: Attracted international attention to the discovery of evidence of the antiquity of man in North America. Site located in Mission Valley, in the city of San Diego.

Del Mar Man Site: Study of the now famous Early Man Site in Del Mar, California, for the San Diego Science Foundation and the San Diego Museum of Man, under the direction of Dr. Spencer Rogers and Dr. James R. Moriarty.

Old Town State Park Projects: Consulting Historical Archaeologist. Projects completed in the Old Town State Park involved development of individual lots for commercial enterprises. The projects completed in Old Town include Archaeological and Historical Site Assessment for the Great Wall Cafe (1992), Archaeological Study for the Old Town Commercial Project (1991), and Cultural Resources Site Survey at the Old San Diego Inn (1988).

Site W-20, Del Mar, California: A two-year-long investigation of a major prehistoric site in the Del Mar area of the city of San Diego. This research effort documented the earliest practice of religious/ceremonial activities in San Diego County (circa 6,000 years ago), facilitated the projection of major non-material aspects of the La Jolla Complex, and revealed the pattern of civilization at this site over a continuous period of 5,000 years. The report for the investigation included over 600 pages, with nearly 500,000 words of text, illustrations, maps, and photographs documenting this major study.

City of San Diego Reclaimed Water Distribution System: A cultural resource study of nearly 400 miles of pipeline in the city and county of San Diego.

Master Environmental Assessment Project, City of Poway: Conducted for the City of Poway to produce a complete inventory of all recorded historic and prehistoric properties within the city. The information was used in conjunction with the City's General Plan Update to produce a map matrix of the city showing areas of high, moderate, and low potential for the presence of cultural resources. The effort also included the development of the City's Cultural Resource Guidelines, which were adopted as City policy.

Draft of the City of Carlsbad Historical and Archaeological Guidelines: Contracted by the City of Carlsbad to produce the draft of the City's historical and archaeological guidelines for use by the Planning Department of the City.

The Mid-Bayfront Project for the City of Chula Vista: Involved a large expanse of undeveloped agricultural land situated between the railroad and San Diego Bay in the northwestern portion of the city. The study included the analysis of some potentially historic features and numerous prehistoric

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Audie Murphy Ranch, Riverside County, California: Project manager/director of the investigation of 1,113.4 acres and 43 sites, both prehistoric and historic—including project coordination; direction of field crews; evaluation of sites for significance based on County of Riverside and CEQA guidelines; assessment of cupule, pictograph, and rock shelter sites, co-authoring of cultural resources project report. February- September 2002.

Cultural Resources Evaluation of Sites Within the Proposed Development of the Otay Ranch Village 13 Project, San Diego County, California: Project manager/director of the investigation of 1,947 acres and 76 sites, both prehistoric and historic—including project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of San Diego and CEQA guidelines; co-authoring of cultural resources project report. May-November 2002.

Cultural Resources Survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County: Project manager/director for a survey of 29 individual sites near the U.S./Mexico Border for proposed video surveillance camera locations associated with the San Diego Border barrier Project—project coordination and budgeting; direction of field crews; site identification and recordation; assessment of

potential impacts to cultural resources; meeting and coordinating with U.S. Army Corps of Engineers, U.S. Border Patrol, and other government agencies involved; co-authoring of cultural resources project report. January, February, and July 2002.

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Menifee West GPA, Riverside County, California: Project manager/director of the investigation of nine sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of Riverside and CEQA guidelines; historic research; co-authoring of cultural resources project report. January-March 2002.

Mitigation of An Archaic Cultural Resource for the Eastlake III Woods Project for the City of Chula Vista, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. September 2001-March 2002.

Cultural Resources Survey and Test of Sites Within the Proposed French Valley Specific Plan/EIR, Riverside County, California: Project manager/director of the investigation of two prehistoric and three historic sites—included project coordination and budgeting; survey of project area; Native American consultation; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural Resources Survey and Test of Sites Within the Proposed Lawson Valley Project, San Diego County, California: Project manager/director of the investigation of 28 prehistoric and two historic sites— included project coordination; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural Resource Survey and Geotechnical Monitoring for the Mohyi Residence Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; field survey; assessment of parcel for potentially buried cultural deposits; monitoring of geotechnical borings; authoring of cultural resources project report. Brian F. Smith and Associates, San Diego, California. June 2000.

Enhanced Cultural Resource Survey and Evaluation for the Prewitt/Schmucker/Cavadias Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; direction of field crews; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. June 2000.

Cultural Resources Survey and Test of Sites Within the Proposed Development of the Menifee Ranch, Riverside County, California: Project manager/director of the investigation of one prehistoric and five historic sites—included project coordination and budgeting; direction of field crews; feature recordation; historic structure assessments; assessment of sites for significance based on CEQA guidelines; historic research; co-authoring of cultural resources project report. February-June 2000.

Salvage Mitigation of a Portion of the San Diego Presidio Identified During Water Pipe Construction for the City of San Diego, California: Project archaeologist/director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Tyrian 3 Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Lamont 5 Project, Pacific Beach, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced Cultural Resource Survey and Evaluation for the Reiss Residence Project, La Jolla, California: Project manager/director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. March-April 2000.

Salvage Mitigation of a Portion of Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project and Caltrans, Carlsbad, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. December 1999-January 2000.

Survey and Testing of Two Prehistoric Cultural Resources for the Airway Truck Parking Project, Otay Mesa, California: Project archaeologist/director—included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; authoring of cultural resources project report, in prep. December 1999-January 2000.

Cultural Resources Phase I and II Investigations for the Tin Can Hill Segment of the Immigration and Naturalization Services Triple Fence Project Along the International Border, San Diego County, California: Project manager/director for a survey and testing of a prehistoric quarry site along the border—NRHP eligibility assessment; project coordination and budgeting; direction of field crews; feature recordation; meeting and coordinating with U.S. Army Corps of Engineers; co-authoring of cultural resources project report. December 1999-January 2000.

Mitigation of a Prehistoric Cultural Resource for the Westview High School Project for the City of San Diego, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. October 1999-January 2000.

Mitigation of a Prehistoric Cultural Resource for the Otay Ranch SPA-One West Project for the City of Chula Vista, California: Project archaeologist/director—included direction of field crews; development of data recovery program; management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report, in prep. September 1999-January 2000.

Monitoring of Grading for the Herschel Place Project, La Jolla, California: Project archaeologist/ monitor—included monitoring of grading activities associated with the development of a single- dwelling parcel. September 1999.

Survey and Testing of a Historic Resource for the Osterkamp Development Project, Valley Center, California: Project archaeologist/ director—included direction of field crews; development and completion of data recovery program; budget development; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and Testing of a Prehistoric Cultural Resource for the Proposed College Boulevard Alignment Project, Carlsbad, California: Project manager/director —included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis;

authoring of cultural resources project report, in prep. July-August 1999.

Survey and Evaluation of Cultural Resources for the Palomar Christian Conference Center Project, Palomar Mountain, California: Project archaeologist—included direction of field crews; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and Evaluation of Cultural Resources at the Village 2 High School Site, Otay Ranch, City of Chula Vista, California: Project manager/director —management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report. July 1999.

Cultural Resources Phase I, II, and III Investigations for the Immigration and Naturalization Services Triple Fence Project Along the International Border, San Diego County, California: Project manager/director for the survey, testing, and mitigation of sites along border—supervision of multiple field crews, NRHP eligibility assessments, Native American consultation, contribution to Environmental Assessment document, lithic and marine shell analysis, authoring of cultural resources project report. August 1997- January 2000.

Phase I, II, and III Investigations for the Scripps Poway Parkway East Project, Poway California: Project archaeologist/project director—included recordation and assessment of multicomponent prehistoric and historic sites; direction of Phase II and III investigations; direction of laboratory analyses including prehistoric and historic collections; curation of collections; data synthesis; coauthorship of final cultural resources report. February 1994; March-September 1994; September-December 1995.

Archaeological Evaluation of Cultural Resources Within the Proposed Corridor for the San Elijo Water Reclamation System Project, San Elijo, California: Project manager/director —test excavations; direction of artifact identification and analysis; graphics production; coauthorship of final cultural resources report. December 1994-July 1995.

Evaluation of Cultural Resources for the Environmental Impact Report for the Rose Canyon Trunk Sewer Project, San Diego, California: Project manager/Director —direction of test excavations; identification and analysis of prehistoric and historic artifact collections; data synthesis; co-authorship of final cultural resources report, San Diego, California. June 1991-March 1992.

Reports/Papers

Author, coauthor, or contributor to over 2,500 cultural resources management publications, a selection of which are presented below.

- 2019 Final Archaeological Data Recovery and Mitigation Monitoring Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California.
- 2019 A Phase I and II Cultural Resources Assessment for the Jack Rabbit Trail Logistics Center Project, City of Beaumont, Riverside County, California.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Altair Project, City of Temecula, California.
- 2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California.
- 2019 Cultural Resources Mitigation Monitoring Report for the Family Dollar Mecca Project, Riverside County, California.

- 2019 A Cultural Resources Assessment for TR 37177, City of Riverside, Riverside County, California.
- 2019 Cultural Resources Monitoring Report for the Westlake Project (TM 33267), City of Lake Elsinore, Riverside County, California.
- 2019 A Phase I Cultural Resources Survey for the Go Fresh Gas Project, Perris, California.
- 2019 Cultural Resources Monitoring Report for the South Milliken Distribution Center Project, City of Eastvale, Riverside County, California.
- 2019 A Class III Section 106 (NHPA) Study for the Perris Valley Storm Drain Channel Widening Project, Perris, Riverside County, California.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Twin Channel Project, City of San Bernardino, San Bernardino County, California.
- 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.
- 2019 A Phase I Cultural Resources Survey for the IPT Perris DC III Western/Nandina Project, Perris, California.
- 2019 A Phase I Cultural Resources Assessment for the Menifee Gateway Project, City of Menifee, Riverside County, California.
- 2019 Results of Archaeological Monitoring at the Atwell Phase 1A Project (formerly Butterfield Specific Plan), City of Banning, Riverside County, California.
- 2019 A Phase I Cultural Resource Study for the Eastvale Self Storage Project, Eastvale, California.
- 2019 A Phase I Cultural Resources Survey Report for the Commercial/Retail NWC Mountain and Lake Streets Project, City of Lake Elsinore, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Anza Baptist Church Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Inland Propane Project, Riverside County, California.
- 2019 A Phase I and II Cultural Resources Assessment for the Seaton Commerce Center Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Val Verde Logistics Center Project, Riverside County, California.
- 2019 A Phase I Cultural Resources Assessment for the Santa Gertrudis Creek Pedestrian/Bicycle Trail Extension and Interconnect Project, City of Temecula, Riverside County, California.
- 2019 Cultural Resource Report for the U.S. Allied Carriers Project, City of Riverside, Riverside County, California.
- 2018 A Section 106 (NHPA) Historical Resources Study for the Otoy Ranch Village 13 Project, County of San Diego.
- 2018 An Archaeological/Historical Study for the Citracado Business Park West Project, City of Escondido.

- 2018 Cultural Resources Monitoring Report for the Uptown Bressi Ranch Project, Carlsbad.
- 2018 A Phase I Cultural Resources Assessment for the South Pointe Banning Project, CUP 180010, Riverside County, California.
- 2018 Mitigation Monitoring Report for the Stedman Residence Project, 9030 La Jolla Shores Lane, La Jolla, California 92037.
- 2018 Historic Resources Interim Monitoring Reports No. 1 through 4 for the LADOT Bus Maintenance and CNG Fueling Facility, Los Angeles.
- 2018 A Phase I and II Cultural Resources Assessment for the Emerald Acres Project, Winchester, Riverside County.
- 2018 Mitigation Monitoring Report for the Green Dragon Project, City of San Diego.
- 2017 Cultural Resource Monitoring Report for the Moxy Hotel Project, San Diego, California.
- 2017 Mitigation Monitoring Report for the Bayside Fire Station, City of San Diego.
- 2017 Mitigation Monitoring Program for the Ballpark Village Project, City of San Diego.
- 2017 Historical Resource Research Report for the Herbert and Alexina Childs/Thomas L. Shepherd House, 210 Westbourne Street, La Jolla, California 92037.
- 2017 A Phase I and II Cultural Resources Assessment for the Alberhill Ranch Specific Plan Amendment No. 3.1 Project, City of Lake Elsinore, Riverside County, California.
- 2017 A Cultural Resources Mitigation Monitoring Report for the Golden City Project, Tracts 28532-1, -2, -3, -4, and -5, and Tract 34445, City of Murrieta, California.
- 2016 Mitigation Monitoring Report for the Blue Sky San Diego Project, City of San Diego.
- 2016 Historic Resource Research Report for the Midway Postal Service and Distribution Center, 2535 Midway Drive, San Diego, California 92138.
- 2016 Results of the Mitigation Monitoring Program for the Amitai Residence Project, 2514 Ellentown Road, La Jolla, California 92037.
- 2016 Historic American Buildings Survey, Los Angeles Memorial Sports Arena.
- 2015 An Archaeological/Historical Study for the Safari Highlands Ranch Project, City of Escondido, County of San Diego.
- 2015 A Phase I and II Cultural Resources Assessment for the Decker Parcels II Project, Planning Case No. 36962, Riverside County, California.
- 2015 A Phase I and II Cultural Resources Assessment for the Decker Parcels I Project, Planning Case No. 36950, Riverside County, California.
- 2015 Cultural Resource Data Recovery and Mitigation Monitoring Program for Site SDI-10,237 Locus F, Everly Subdivision Project, El Cajon, California.
- 2015 Phase I Cultural Resource Survey for the Woodward Street Senior Housing Project, City of San Marcos, California (APN 218-120-31).

- 2015 An Updated Cultural Resource Survey for the Box Springs Project (TR 33410), APNs 255-230-010, 255-240-005, 255-240-006, and Portions of 257-180-004, 257-180-005, and 257-180-006.
- 2015 A Phase I and II Cultural Resource Report for the Lake Ranch Project, TR 36730, Riverside County, California.
- 2015 A Phase II Cultural Resource Assessment for the Munro Valley Solar Project, Inyo County, California.
- 2014 Cultural Resources Monitoring Report for the Diamond Valley Solar Project, Community of Winchester, County of Riverside.
- 2014 National Historic Preservation Act Section 106 Compliance for the Proposed Saddleback Estates Project, Riverside County, California.
- 2014 A Phase II Cultural Resource Evaluation Report for RIV-8137 at the Toscana Project, TR 36593, Riverside County, California.
- 2014 Cultural Resources Study for the Estates at Del Mar Project, City of Del Mar, San Diego, California (TTM 14-001).
- 2014 Cultural Resources Study for the Aliso Canyon Major Subdivision Project, Rancho Santa Fe, San Diego County, California.
- 2014 Cultural Resources Due Diligence Assessment of the Ocean Colony Project, City of Encinitas.
- 2014 A Phase I and Phase II Cultural Resource Assessment for the Citrus Heights II Project, TTM 36475, Riverside County, California.
- 2013 A Phase I Cultural Resource Assessment for the Modular Logistics Center, Moreno Valley, Riverside County, California.
- 2013 A Phase I Cultural Resources Survey of the Ivey Ranch Project, Thousand Palms, Riverside County, California.
- 2013 Cultural Resources Report for the Emerald Acres Project, Riverside County, California.
- 2013 A Cultural Resources Records Search and Review for the Pala Del Norte Conservation Bank Project, San Diego County, California.
- 2013 An Updated Phase I Cultural Resources Assessment for Tentative Tract Maps 36484 and 36485, Audie Murphy Ranch, City of Menifee, County of Riverside.
- 2013 El Centro Town Center Industrial Development Project (EDA Grant No. 07-01-06386); Result of Cultural Resource Monitoring.
- 2013 Cultural Resources Survey Report for the Renda Residence Project, 9521 La Jolla Farms Road, La Jolla, California.
- 2013 A Phase I Cultural Resource Study for the Ballpark Village Project, San Diego, California.
- 2013 Archaeological Monitoring and Mitigation Program, San Clemente Senior Housing Project, 2350 South El Camino Real, City of San Clemente, Orange County, California (CUP No. 06-065; APN-060-032-04).
- 2012 Mitigation Monitoring Report for the Los Peñasquitos Recycled Water Pipeline.

- 2012 Cultural Resources Report for Menifee Heights (Tract 32277).
- 2012 A Phase I Cultural Resource Study for the Altman Residence at 9696 La Jolla Farms Road, La Jolla, California 92037.
- 2012 Mission Ranch Project (TM 5290-1/MUP P87-036W3): Results of Cultural Resources Monitoring During Mass Grading.
- 2012 A Phase I Cultural Resource Study for the Payan Property Project, San Diego, California.
- 2012 Phase I Archaeological Survey of the Rieger Residence, 13707 Durango Drive, Del Mar, California 92014, APN 300-369-49.
- 2011 Mission Ranch Project (TM 5290-1/MUP P87-036W3): Results of Cultural Resources Monitoring During Mass Grading.
- 2011 Mitigation Monitoring Report for the 1887 Viking Way Project, La Jolla, California.
- 2011 Cultural Resource Monitoring Report for the Sewer Group 714 Project.
- 2011 Results of Archaeological Monitoring at the 10th Avenue Parking Lot Project, City of San Diego, California (APNs 534-194-02 and 03).
- 2011 Archaeological Survey of the Pelberg Residence for a Bulletin 560 Permit Application; 8335 Camino Del Oro; La Jolla, California 92037 APN 346-162-01-00.
- 2011 A Cultural Resources Survey Update and Evaluation for the Robertson Ranch West Project and an Evaluation of National Register Eligibility of Archaeological sites for Sites for Section 106 Review (NHPA).
- 2011 Mitigation Monitoring Report for the 43rd and Logan Project.
- 2011 Mitigation Monitoring Report for the Sewer Group 682 M Project, City of San Diego Project #174116.
- 2011 A Phase I Cultural Resource Study for the Nooren Residence Project, 8001 Calle de la Plata, La Jolla, California, Project No. 226965.
- 2011 A Phase I Cultural Resource Study for the Keating Residence Project, 9633 La Jolla Farms Road, La Jolla, California 92037.
- 2010 Mitigation Monitoring Report for the 15th & Island Project, City of San Diego; APNs 535-365-01, 535-365-02 and 535-392-05 through 535-392-07.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Sewer and Water Group 772 Project, San Diego, California, W.O. Nos. 187861 and 178351.
- 2010 Pottery Canyon Site Archaeological Evaluation Project, City of San Diego, California, Contract No. H105126.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Racetrack View Drive Project, San Diego, California; Project No. 163216.
- 2010 A Historical Evaluation of Structures on the Butterfield Trails Property.
- 2010 Historic Archaeological Significance Evaluation of 1761 Haydn Drive, Encinitas, California (APN

260-276-07-00).

- 2010 Results of Archaeological Monitoring of the Heller/Nguyen Project, TPM 06-01, Poway, California.
- 2010 Cultural Resource Survey and Evaluation Program for the Sunday Drive Parcel Project, San Diego County, California, APN 189-281-14.
- 2010 Archaeological Resource Report Form: Mitigation Monitoring of the Emergency Garnet Avenue Storm Drain Replacement Project, San Diego, California, Project No. B10062
- 2010 An Archaeological Study for the 1912 Spindrift Drive Project
- 2009 Cultural Resource Assessment of the North Ocean Beach Gateway Project City of San Diego #64A-003A; Project #154116.
- 2009 Archaeological Constraints Study of the Morgan Valley Wind Assessment Project, Lake County, California.
- 2008 Results of an Archaeological Review of the Helen Park Lane 3.1-acre Property (APN 314-561-31), Poway, California.
- 2008 Archaeological Letter Report for a Phase I Archaeological Assessment of the Valley Park Condominium Project, Ramona, California; APN 282-262-75-00.
- 2007 Archaeology at the Ballpark. Brian F. Smith and Associates, San Diego, California. Submitted to the Centre City Development Corporation.
- 2007 Result of an Archaeological Survey for the Villages at Promenade Project (APNs 115-180-007-3, 115-180-049-1, 115-180-042-4, 115-180-047-9) in the City of Corona, Riverside County.
- 2007 Monitoring Results for the Capping of Site CA-SDI-6038/SDM-W-5517 within the Katzer Jamul Center Project; P00-017.
- 2006 Archaeological Assessment for The Johnson Project (APN 322-011-10), Poway, California.
- 2005 Results of Archaeological Monitoring at the El Camino Del Teatro Accelerated Sewer Replacement Project (Bid No. K041364; WO # 177741; CIP # 46-610.6.
- 2005 Results of Archaeological Monitoring at the Baltazar Draper Avenue Project (Project No. 15857; APN: 351-040-09).
- 2004 TM 5325 ER #03-14-043 Cultural Resources.
- 2004 An Archaeological Survey and an Evaluation of Cultural Resources at the Salt Creek Project. Report on file at Brian F. Smith and Associates.
- 2003 An Archaeological Assessment for the Hidden Meadows Project, San Diego County, TM 5174, Log No. 99-08-033. Report on file at Brian F. Smith and Associates.
- 2003 An Archaeological Survey for the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.
- 2003 Archaeological Investigations at the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.
- 2003 Archaeological Monitoring of Geological Testing Cores at the Pacific Beach Christian Church Project. Report on file at Brian F. Smith and Associates.

- 2003 San Juan Creek Drilling Archaeological Monitoring. Report on file at Brian F. Smith and Associates.
- 2003 Evaluation of Archaeological Resources Within the Spring Canyon Biological Mitigation Area, Otay Mesa, San Diego County, California. Brian F. Smith and Associates, San Diego, California.
- 2002 An Archaeological/Historical Study for the Otay Ranch Village 13 Project (et al.). Brian F. Smith and Associates, San Diego, California.
- 2002 An Archaeological/Historical Study for the Audie Murphy Ranch Project (et al.). Brian F. Smith and Associates, San Diego, California.
- 2002 Results of an Archaeological Survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County, California. Brian F. Smith and Associates, San Diego, California.
- 2002 A Cultural Resources Survey and Evaluation for the Proposed Robertson Ranch Project, City of Carlsbad. Brian F. Smith and Associates, San Diego, California.
- 2002 Archaeological Mitigation of Impacts to Prehistoric Site SDI-7976 for the Eastlake III Woods Project, Chula Vista, California. Brian F. Smith and Associates, San Diego, California.
- 2002 An Archaeological/Historical Study for Tract No. 29777, Menifee West GPA Project, Perris Valley, Riverside County. Brian F. Smith and Associates, San Diego, California.
- 2002 An Archaeological/Historical Study for Tract No. 29835, Menifee West GPA Project, Perris Valley, Riverside County. Brian F. Smith and Associates, San Diego, California.
- 2001 An Archaeological Survey and Evaluation of a Cultural Resource for the Moore Property, Poway. Brian F. Smith and Associates, San Diego, California.
- 2001 An Archaeological Report for the Mitigation, Monitoring, and Reporting Program at the Water and Sewer Group Job 530A, Old Town San Diego. Brian F. Smith and Associates, San Diego, California.
- 2001 A Cultural Resources Impact Survey for the High Desert Water District Recharge Site 6 Project, Yucca Valley. Brian F. Smith and Associates, San Diego, California.
- 2001 Archaeological Mitigation of Impacts to Prehistoric Site SDI-13,864 at the Otay Ranch SPA-One West Project. Brian F. Smith and Associates, San Diego, California.
- 2001 A Cultural Resources Survey and Site Evaluations at the Stewart Subdivision Project, Moreno Valley, County of San Diego. Brian F. Smith and Associates, San Diego, California.
- 2000 An Archaeological/Historical Study for the French Valley Specific Plan/EIR, French Valley, County of Riverside. Brian F. Smith and Associates, San Diego, California.
- 2000 Results of an Archaeological Survey and the Evaluation of Cultural Resources at The TPM#24003–Lawson Valley Project. Brian F. Smith and Associates, San Diego, California.
- 2000 Archaeological Mitigation of Impacts to Prehistoric Site SDI-5326 at the Westview High School Project for the Poway Unified School District. Brian F. Smith and Associates, San Diego, California.
- 2000 An Archaeological/Historical Study for the Menifee Ranch Project. Brian F. Smith and Associates, San Diego, California.
- 2000 An Archaeological Survey and Evaluation of Cultural Resources for the Bernardo Mountain Project, Escondido, California. Brian F. Smith and Associates, San Diego, California.

- 2000 A Cultural Resources Impact Survey for the Nextel Black Mountain Road Project, San Diego, California. Brian F. Smith and Associates, San Diego, California.
- 2000 A Cultural Resources Impact Survey for the Rancho Vista Project, 740 Hilltop Drive, Chula Vista, California. Brian F. Smith and Associates, San Diego, California.
- 2000 A Cultural Resources Impact Survey for the Poway Creek Project, Poway, California. Brian F. Smith and Associates, San Diego, California.
- 2000 Cultural Resource Survey and Geotechnical Monitoring for the Mohyi Residence Project. Brian F. Smith and Associates, San Diego, California.
- 2000 Enhanced Cultural Resource Survey and Evaluation for the Prewitt/Schmucker/Cavadias Project. Brian F. Smith and Associates, San Diego, California.
- 2000 Enhanced Cultural Resource Survey and Evaluation for the Lamont 5 Project. Brian F. Smith and Associates, San Diego, California.
- 2000 Salvage Excavations at Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project, Carlsbad, California. Brian F. Smith and Associates, San Diego, California.
- 2000 Enhanced Cultural Resource Survey and Evaluation for the Reiss Residence Project, La Jolla, California. Brian F. Smith and Associates, San Diego, California.
- 2000 Enhanced Cultural Resource Survey and Evaluation for the Tyrian 3 Project, La Jolla, California. Brian F. Smith and Associates, San Diego, California.
- 2000 A Report for an Archaeological Evaluation of Cultural Resources at the Otay Ranch Village Two SPA, Chula Vista, California. Brian F. Smith and Associates, San Diego, California.
- 2000 An Archaeological Evaluation of Cultural Resources for the Airway Truck Parking Project, Otay Mesa, County of San Diego. Brian F. Smith and Associates, San Diego, California.
- 2000 Results of an Archaeological Survey and Evaluation of a Resource for the Tin Can Hill Segment of the Immigration and Naturalization and Immigration Service Border Road, Fence, and Lighting Project, San Diego County, California. Brian F. Smith and Associates, San Diego, California.
- 1999 An Archaeological Survey of the Home Creek Village Project, 4600 Block of Home Avenue, San Diego, California. Brian F. Smith and Associates, San Diego, California.
- 1999 An Archaeological Survey for the Sgobassi Lot Split, San Diego County, California. Brian F. Smith and Associates, San Diego, California.
- 1999 An Evaluation of Cultural Resources at the Otay Ranch Village 11 Project. Brian F. Smith and Associates, San Diego, California.
- 1999 An Archaeological/Historical Survey and Evaluation of a Cultural Resource for The Osterkamp Development Project, Valley Center, California. Brian F. Smith and Associates, San Diego, California.
- 1999 An Archaeological Survey and Evaluation of Cultural Resources for the Palomar Christian Conference Center Project, Palomar Mountain, California. Brian F. Smith and Associates, San Diego, California.
- 1999 An Archaeological Survey and Evaluation of a Cultural Resource for the Proposed College Boulevard Alignment Project. Brian F. Smith and Associates, San Diego, California.

- 1999 Results of an Archaeological Evaluation for the Anthony's Pizza Acquisition Project in Ocean Beach, City of San Diego (with L. Pierson and B. Smith). Brian F. Smith and Associates, San Diego, California.
- 1996 An Archaeological Testing Program for the Scripps Poway Parkway East Project. Brian F. Smith and Associates, San Diego, California.
- 1995 Results of a Cultural Resources Study for the 4S Ranch. Brian F. Smith and Associates, San Diego, California.
- 1995 Results of an Archaeological Evaluation of Cultural Resources Within the Proposed Corridor for the San Elijo Water Reclamation System. Brian F. Smith and Associates, San Diego, California.
- 1994 Results of the Cultural Resources Mitigation Programs at Sites SDI-11,044/H and SDI-12,038 at the Salt Creek Ranch Project. Brian F. Smith and Associates, San Diego, California.
- 1993 Results of an Archaeological Survey and Evaluation of Cultural Resources at the Stallion Oaks Ranch Project. Brian F. Smith and Associates, San Diego, California.
- 1992 Results of an Archaeological Survey and the Evaluation of Cultural Resources at the Ely Lot Split Project. Brian F. Smith and Associates, San Diego, California.
- 1991 The Results of an Archaeological Study for the Walton Development Group Project. Brian F. Smith and Associates, San Diego, California.

Andrew J. Garrison, MA, RPA

Project Archaeologist

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

Experience

Project Archaeologist **June 2017–Present**
Brian F. Smith and Associates, Inc. **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
Eastern Information Center (EIC), University of California, Riverside

2005, 2008–2009
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 Cultural Resource Monitoring Report for the Pipeline Rehabilitation AP-1 Project, City of San Diego, California. Brian F. Smith and Associates, Inc.
- 2019 Cultural Resources Study for the Pioneer Redlands Project, San Bernardino County, California. Brian F. Smith and Associates, Inc.
- 2019 Cultural Resource Report for the U.S. Allied Carriers Project, City of Riverside, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2019 Phase I Cultural Resources Survey for the Go Fresh Gas Station Project, City of Moreno Valley, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2019 A Negative Cultural Resources Survey Report for the Barnaba Soccer Fields and Event Space Project, San Diego County, California.
- 2019 Phase I Cultural Resource Survey for the 2608 South Escondido Boulevard Project, City of Escondido. Brian F. Smith and Associates, Inc.
- 2019 A Negative Cultural Resources Survey Report for the Quail Ridge Project, San Diego County, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resource Study for the Eastvale Self Storage Project, Eastvale, California. Brian F. Smith and Associates, Inc.
- 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 Cultural Resources Assessment for the Dudley Pomona Project, Pomona, California. 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 A Phase I Cultural Resources Survey for the IDI Rider 2 & 4 High Cube Warehouses and PVSD Channel Improvement Project, Perris, 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 A Phase I Cultural Resources Survey for the IPT Perris DC III Western/Nandina Project, Perris, 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.
- 2019 A Phase I Cultural Resources Survey Report for the Commercial/Retail NWC Mountain and Lake Streets Project, City of Lake Elsinore, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2019 A Section 106 (NHPA) Historic Resources Study for the Twin Channel Project, City of San Bernardino, San Bernardino County, California. Brian F. Smith and Associates, Inc.
- 2019 Cultural Resources Study for the 10407 Elm Avenue Project, City of Fontana, San Bernardino County, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resource Study for the Olivenhain Apartments Project, Encinitas, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resource Study for the Sanctuary Project, Encinitas, California. Brian F. Smith and Associates, Inc.
- 2019 A Cultural Resources Survey Report for the Borrego Springs 141 Project, San Diego County, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Survey for the Natwar Project, Perris, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Survey for the Morningstar Marguerite Project, Mission Viejo, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Assessment for the Anza Baptist Church Project, Riverside County. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Assessment for the Inland Propane Project, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2019 A Phase I Cultural Resources Survey for the First Industrial Wilson Avenue Project, Perris, California. Brian F. Smith and Associates, Inc.
- 2018 A Class III Historic Resource Study for Phase 2 of the Atwell Project for Section 106 Compliance, Banning, 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 Hanna Banning Project, Banning, California. Brian F. Smith and Associates, Inc.
- 2018 Cultural Resources Negative Findings for the SNC Mixed Use Project, San Diego County, California. Brian F. Smith and Associates, Inc.
- 2018 Cultural Resources Study for the Perrin Oak Ranch Winery Project, San Diego County, California. Brian F. Smith and Associates, Inc.
- 2018 Phase I Cultural Resource Survey for the Stemley 42nd Street Project, San Diego, California. Brian F. Smith and Associates, Inc.
- 2018 Cultural Resource Monitoring Report for the 320 West Cedar Street Project, San Diego, California. Brian F. Smith and Associates, Inc.
- 2018 Cultural Resource Monitoring Report for the 8352 La Jolla Shores Drive Project, San Diego, California. Brian F. Smith and Associates, Inc.
- 2018 Phase I Cultural Resources Survey of APNs 316-210-032 and -033, City of Moreno Valley, County of Riverside. Contributing author. Brian F. Smith and Associates, Inc.
- 2018 A Cultural Resources Assessment for TR 37177, City of Riverside, Riverside County, California. 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 Survey for the Jefferson & Ivy Project, City of Murrieta, California. Brian F. Smith and Associates, Inc.
- 2017 A Phase I Cultural Resources Assessment for the Nuevo Dollar General Store Project, Riverside County, California. Brian F. Smith and Associates, Inc.
- 2017 A Phase I Cultural Resource Study for the Westmont Project, Encinitas, California. 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.
- 2017 Phase I Cultural Resource Assessment for TTM 31810 (42.42 acres) Predico Properties Olive Grove Project. Scientific Resource Surveys, 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 Phase I Cultural Resources Assessment: All Star Super Storage City of Menifee Project, 2015-156. Scientific Resource Surveys, Inc. On file at the Eastern Information Center, University of California, Riverside.

- 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.
- 2015 Class III Scientific Resource Surveys, Inc. Survey for The Lynx Cat Granite Quarry and Water Valley Road Widening Project County of San Bernardino, California, Near the Community of Hinkley. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.
- 2014 Archaeological Phase I: Cultural Resource Survey of the South West Quadrant of Fairview Park, Costa Mesa. Scientific Resource Surveys, Inc. On file at the South Central Coastal Information Center, California State University, Fullerton.
- 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.
- 2010 Phase II Cultural Resources Report Site CA-RIV-2160 PM No. 35164. Scientific Resource Surveys, Inc. On file at the Eastern Information Center, University of California, Riverside.
- 2009 Riverside Modernism Context Survey, contributing author. Available online at the City of Riverside.

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.
- 2015 "Successive Cultural Phasing Of Prehistoric Northern Orange County, California." Presented at the Society for California Archaeology Annual Meeting, Redding, California.

- 2015 "Southern California Cogged Stone Replication: Experimentation and Results." Presented at the Society for California Archaeology Annual Meeting, Redding, California.
- 2015 "Prehistoric House Keeping: Lithic Analysis of an Intermediate Horizon House Pit." Presented at the Society for California Archaeology Annual Meeting, Redding, California.
- 2015 "Pits and Privies: The Use and Disposal of Artifacts from Historic Los Angeles." Presented at the Society for California Archaeology Annual Meeting, Redding, California.
- 2015 "Grooving in the Past: A Demonstration of the Manufacturing of OGR beads and a look at Past SRS, Inc. Replicative Studies." Demonstration of experimental manufacturing techniques at the January meeting of The Pacific Coast Archaeological Society, Irvine, California.
- 2014 "From Artifact to Replication: Examining *Olivella* Grooved Bead Manufacturing." Presented at the Society for California Archaeology Annual Meeting, Visalia, 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.
- 2012 "Expedient Flaked Tools from Bolsa Chica: Exploring the Lithic Technological Organization." Presented at the Society for California Archaeology Annual Meeting, San Diego, California.
- 2012 "Utilitarian and Ceremonial Ground Stone Production at Bolsa Chica Identified Through Production Tools." Presented at the Society for California Archaeology Annual Meeting, San Diego, California.
- 2012 "Connecting Production Industries at Bolsa Chica: Lithic Reduction and Bead Manufacturing." Presented at the Society for California Archaeology Annual Meeting, San Diego, California.
- 2011 Bolsa Chica Archaeology: Part Four: Mesa Production Industries. Co-presenter at the April meeting of The Pacific Coast Archaeological Society, Irvine, California.
- 2011 "Hammerstones from Bolsa Chica and Their Relationship towards Site Interpretation." Presented at the Society for California Archaeology Annual Meeting, Rohnert Park, California.
- 2011 "Exploring Bipolar Reduction at Bolsa Chica: Debitage Analysis and Replication." Presented at the Society for California Archaeology Annual Meeting, Rohnert Park, California.

APPENDIX II

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX III

**Native American Heritage Commission
Sacred Lands File Search Results**

(Deleted for Public Review; Bound Separately)

APPENDIX IV

Table 5.1-1

Table 5.1-1

Archaeological Sites Located Within One Mile of the West Campus Upper Plateau Project

Site	Description
P-33-012662	Prehistoric isolate(s)
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	
P-33-028981	
CA-RIV-1786	
CA-RIV-2231	
CA-RIV-2780	
CA-RIV-12,717	
CA-RIV-12,950	
P-33-018671	Prehistoric bedrock milling site(s)
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	

Site	Description
CA-RIV-5811	Prehistoric bedrock milling site(s)
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	

Site	Description
CA-RIV-2509	Prehistoric bedrock milling site(s)
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	

Site	Description
CA-RIV-2709	Prehistoric bedrock milling site(s)
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	
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	

Site	Description
CA-RIV-5818	Prehistoric bedrock milling site(s)
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-5998	
CA-RIV-5999	
CA-RIV-6002	

Site	Description
CA-RIV-6003	Prehistoric bedrock milling site(s)
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-998	
CA-RIV-5433	
CA-RIV-6000	
CA-RIV-9507	
CA-RIV-6156	Prehistoric bedrock milling features and historic residence
P-33-020329	Historic single-family residence
P-33-020330	
P-33-020331	
P-33-006915	
P-33-006916	
P-33-006917	
P-33-006918	
P-33-006919	
P-33-020326	
P-33-020327	
P-33-020328	
P-33-014227	Historic Arnold Heights Elementary School
CA-RIV-4194	Historic ranch
CA-RIV-5454	Historic foundations
CA-RIV-5456	
CA-RIV-12,313	Historic railroad
CA-RIV-8196	
CA-RIV-12,314	Historic isolate
P-33-024836	
P-33-005563	Historic trash scatter
P-33-015326	
P-33-018667	
P-33-018668	
P-33-018669	

Site	Description
CA-RIV-4193	

APPENDIX V

Confidential Maps

(Deleted for Public Review; Bound Separately)