PDB190009
3RD REVISION

L&L ENVIRONMENTAL, INC.
REGULATORY SERVICES
BIOLOGICAL & CULTURAL INVESTIGATIONS & MONITORING

REVISED HABITAT ASSESSMENT REPORT WITH CONSISTENCY DETERMINATION FOR MSHCP URBAN/WILDLANDS INTERFACE, RIPARIAN/RIVERINE AREAS, VERNAL POOLS, AND FAIRY SHRIMP FOR APN 470-200-010, HEMET AREA, RIVERSIDE COUNTY, CALIFORNIA

±18.18 (17.86 acres Intake Mapping) Acre Property, ±18.18 Acres Surveyed

APN 470-200-010, TPM 37655, HAN 180012, Hemet Area, Section 25, Township 6 South, Range 1 West, USGS Sage 7.5' Topographic Quadrangle Map

Prepared For:

Forest and Jill Hansen
41080 Sycamore Springs Road
Hemet, CA 92544
951-767-1231
flygirljill1@gmail.com

Prepared By:

Leslie Irish, Principal — lirish@llenviroinc.com
Guy Bruyea, Biological Investigator — gbruyea@llenviroinc.com
Jeffrey Sonnentag, Technical Editor — jsonnentag@llenviroinc.com

Report Summary:

The parcel does not contain riparian/riverine, vernal pool, or fairy shrimp habitat. Due to lack of habitat or potential habitat present (no areas of pooling water that might be inhabited by fairy shrimp), parcel division and associated potential additional development is not expected to impact any of these resources and is consistent with Section 6.1.2 of the MSHCP. The parcel is not positioned where the 5-15% conservation goal within all of Cell Group L is best suited and does not contain the habitat desired for conservation; therefore, division of the parcel and additional potential development is consistent with MSHCP Criteria Cell and Cell Group requirements. Trees and brush suitable for nesting birds protected by the Migratory Bird Treaty Act are present within and around the site. The parcel contains multiple mature coast live oaks.

Surveys Conducted By: Guy Bruyea
Surveys Conducted On: August 1, 2018
Report Date: January 21, 2019, Revised August 30, 2019

TABLE OF CONTENTS

MANAGEMENT SUMMARY

L&L Environmental, Inc. conducted a biological survey on Forest and Jill Hansen's ±18.18-acre (17.86 acres Intake Mapping) project (TPM 37655, HAN 180012) in the Hemet area of Riverside County, California. The purpose of this study was to examine the subject property to determine presence/absence of biological resources on the property, potential for sensitive species to occur, and consistency of the planned lot split with MSHCP goals and objectives.

The project description is a lot split from one (1) to three (3) parcels via the filing of a Tentative Parcel Map. No grading or building project is proposed at this time, nor is one addressed in the report. No offsite impacts are anticipated or evaluated in this report. Any future grading or building on the parcel will require subsequent review and study.

During our field work and analysis L&L evaluated whether vegetation and/or habitat for special status species exists onsite and whether any MSHCP riparian/riverine habitat, vernal pools, or fairy shrimp habitat are within property boundaries.

The property contains an existing occupied home and out buildings. Excluding ornamental trees and other landscape vegetation, much of the site is sparsely inhabited with non-native annuals due to the development and ongoing use of the property as a residence. Evidence of regular vehicle and animal use is evident, as well as clearing and mowing. The northwestern portion of the site (which includes a low-lying hilltop and gentle east, south, and north-facing slopes) is somewhat less disturbed and inhabited with patchy chamise, California buckwheat, California sagebrush, yellow bush penstemon, blue elderberry, California matchweed, deerweed, and other native plants associated with mixed chaparral and Riversidean sage scrub.

The parcel does not contain riparian/riverine, vernal pool, or fairy shrimp habitat. No evidence of streambed or banks, ponded areas, or wetlands of other riverine features, such as canals, aqueducts, or irrigation ditches, were found within the study area. No riparian habitat associated with riverine areas was found within the study area. As a result, there is no suitable habitat for special-status riparian bird species protected under Section 6.1.2, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*). Due to lack of habitat or potential habitat present (no areas of pooling water that might be inhabited by fairy shrimp), parcel division and associated potential additional development is not expected to impact any of these resources and is consistent with Section 6.1.2 of the MSHCP.

The parcel is located within Cell 5384 (of Cell Group L), so development activities onsite must also conform to urban/wildlands interface policies where MSHCP conserved habitat is present or might be present in the future. The parcel is not positioned where the 5-15% conservation goal within all of Cell Group L is best suited and does not contain the habitat desired for conservation; therefore, division of the parcel and additional potential development is consistent with MSHCP Criteria Cell and Cell Group requirements.

While the site is not currently located near any MSHCP conserved area (the nearest being 1 mile away to the north), areas surrounding the parcel might potentially be conserved through some future property owner interaction with the county (although, all areas within the Cell Group adjacent to the parcel [to the north, south, and east] are already developed/disturbed and impacted, with the exception of the area east of Komodo Road along the northeastern portion of the parcel). Because of the potential for surrounding land conservation in the future (that being, realistically, only the area east of Komodo Road along the northeastern portion of the parcel), any future development activity within the divided parcel should follow standards and requirements associated with land developed adjacent to already conserved area.

Trees and brush suitable for nesting birds protected by the Migratory Bird Treaty Act are present within and around the site. Presence of this potential habitat is the basis for recommendation a preconstruction survey (valid for 2-30 days, depending upon the agency) for nesting birds protected by the Migratory Bird Treaty Act prior to any site disturbance started during the nesting season (February 1 through August 31). If protected nesting birds are present, avoidance of nest sites will be required and a buffer of 200-500 ft. (depending on the species) is recommended until juvenile birds have fledged and/or an authorized biologist has verified that the nest has become inactive.

Riverside County has adopted “oak tree management guidelines” and the parcel contains multiple mature coast live oaks. The guidelines state that “A biological study will be required for all applications on properties that contain oak trees.” The guidelines go on to specify what is required in the tree inventory and detail the steps to be employed for avoidance and mitigation/replacement. The current survey did not include collection of information necessary for the study; therefore, prior to any planned future disturbance(s) a tree survey is recommended and will be required of the County of Riverside.

Potential habitat for Stephen’s kangaroo rat is present onsite (mostly within undisturbed and less disturbed areas). However, the parcel is located within the Stephen's Kangaroo Rat Plan and Fee Area and no focused surveys are required. Payment of the fee will be required.

1.0) INTRODUCTION

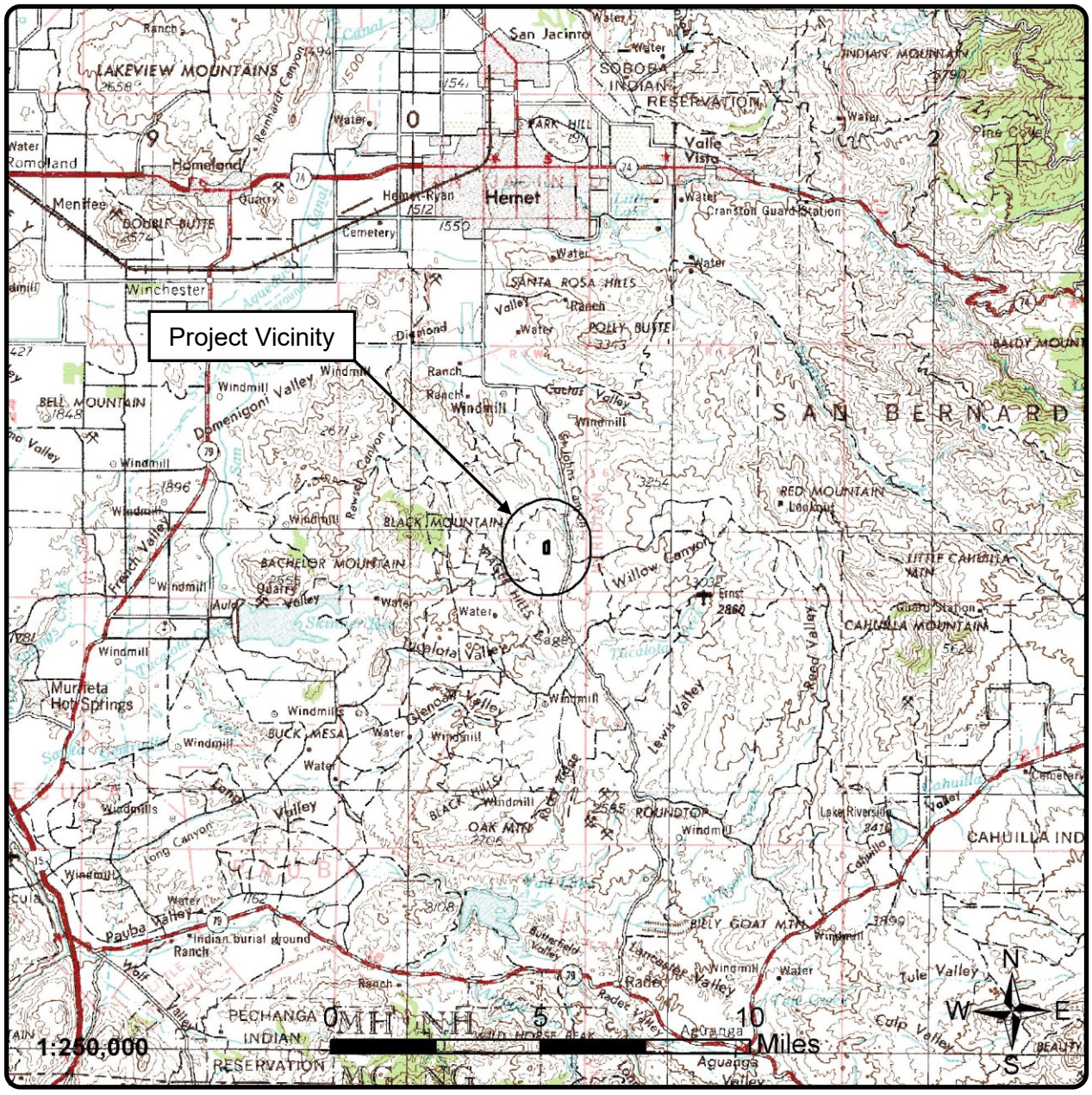
The following report was written by L&L Environmental, Inc. for Forest and Jill Hansen. It describes the results of a biological survey to determine presence/absence of biological resources on the property, potential for sensitive species to occur, and consistency of the planned lot split with MSHCP goals and objectives. L&L evaluated whether vegetation and/or habitat for special status species exists onsite and whether any MSHCP riparian/riverine habitat, vernal pools, or fairy shrimp habitat are within project boundaries. The project site consists of APN 470-200-010 (TPM 37655, HAN 180012), totaling ±18.18 acres (17.86 acres Intake Mapping), in the Hemet area of Riverside County. The owners wish to perform a lot split, placing each of the current houses and associated buildings into their own parcels (Parcels 2 and 3) and creating a parcel on the north end (Parcel 1) where a house and workshop may be constructed in the future. No offsite or onsite impacts are planned at this time. Any future impacts within the proposed parcels would require additional evaluation.

Our assessment consisted of (1) a records search and literature review, conducted to determine what species of concern are in the project area and proximity to closest documented special status species and (2) field reconnaissance, intended to identify plants and animals on the property and presence/absence of habitat for species of concern.

1.1) Location

The site is located south of Hemet (Figure 1), west of Sage Road. Specifically, the site is located ½ mile west of Sage Road, just northwest of the intersection of Sycamore Springs Road and Komodo Road. The site is situated within Section 25 of Township 6 south, Range 1 west, within the USGS Sage 7.5' series quadrangle map (Figure 2).

The site is generally bounded as follows: to the west by open space, with open space and rural residential housing beyond; to the east by Komodo Road, with open space and rural residential housing beyond; to the north by Schram Trail, with a vineyard, open space, and rural residential housing beyond; and to the south by Sycamore Springs Road, with rural residential housing beyond (Figure 3).



L&L Environmental, Inc.

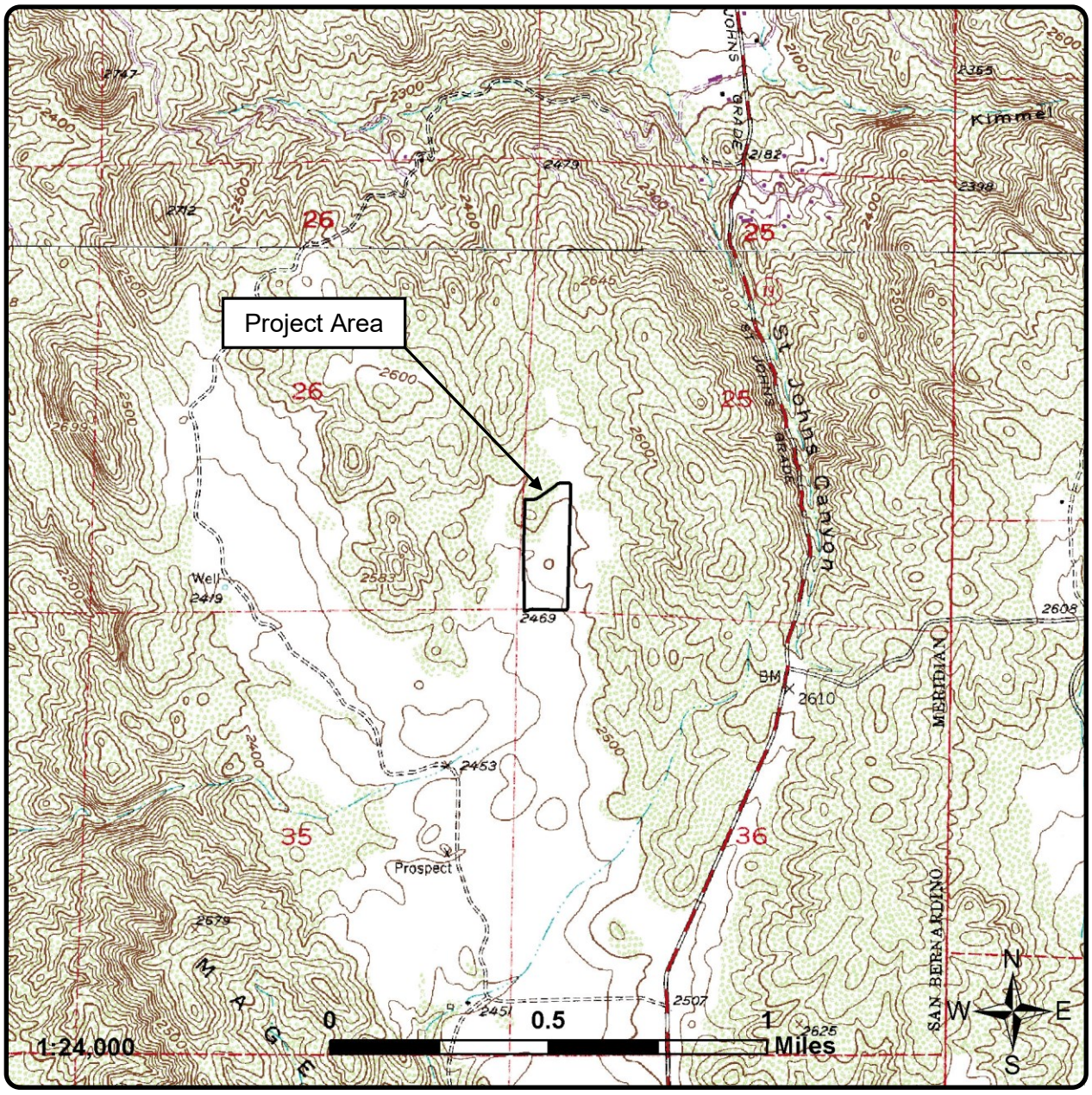
BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 1

Project Vicinity Map

Hansen Parcel Division, Hemet Area
County of Riverside, California



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 2

Project Location Map

(USGS Sage [1991] quadrangle,
Section 25, Township 6 South, Range 1 West)

Hansen Parcel Division, Hemet Area
County of Riverside, California

L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 3

Aerial Photograph
(Photo obtained from Google Earth, February 2018)

Hansen Parcel Division, Hemet Area
County of Riverside, California

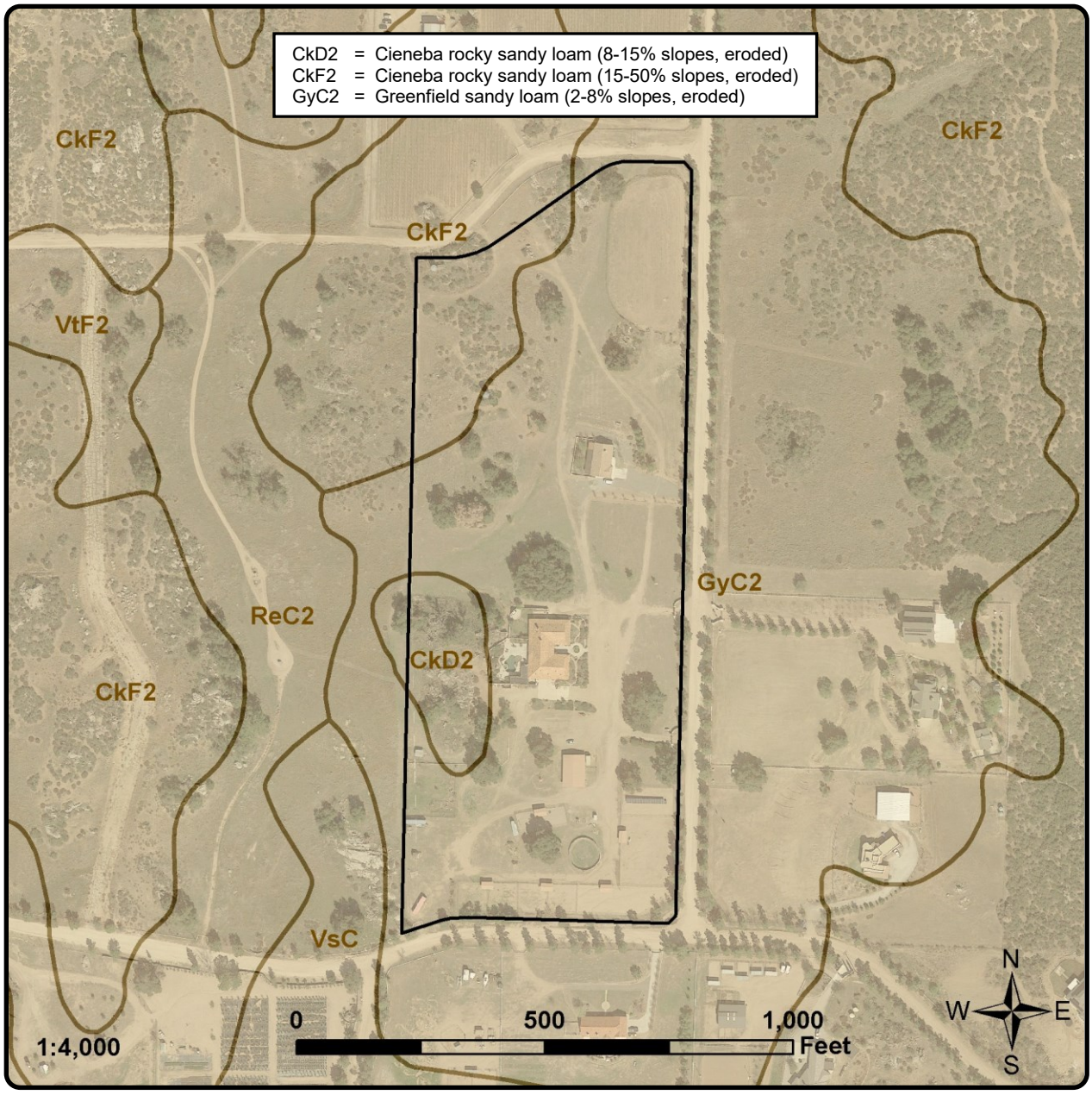
The proposed project evaluated in this report is a lot split via the filing of a Tentative Parcel Map. The action will subdivide an existing occupied property into three (3) residential parcels. A zone change will also be processed. No grading or building is proposed or considered in this report and no offsite impacts are planned nor addressed. Any future building and/or grading will be subject to additional study and permits.

1.2) Vegetation and Setting

Two (2) occupied single-family residences are present on the central portion of the site. Other developments onsite include a small barn, sheds, corrals, corral shade structures, and a paddock ring. Two (2) small water tanks are present on or near a low-lying hilltop on the northwestern portion of the site. Areas immediately surrounding these developments onsite are mostly disturbed, due to the presence of ornamental vegetation (landscaping) and various other anthropogenic activities such as clearing, mowing, supply storage, and vehicle activities.

1.3) Soils and Topography

Soils onsite are mostly Greenfield sandy loam, but Cieneba rocky sandy loam is also mapped in some western portions of the site (Figure 4). Elevation onsite ranges between 2,481 feet (at the southwest corner) and 2,523 feet (at the northwest corner). In general, the property slopes downward from the northeast to the southwest.



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 4

Soils Map

(Photo obtained from Google Earth, February 2018, USDA Nat. Res. Cons. Serv. SSURGO Data)

Hansen Parcel Division, Hemet Area
County of Riverside, California

2.0) METHODS AND PERSONNEL

2.1) Literature Review

Pertinent literature was reviewed to identify local occurrences and habitat requirements of special status species and communities occurring in the region. Literature reviewed included the Western Riverside County MSHCP and CNDDB (2018) and USFWS (2018) reports for the vicinity.

Latin names of plants follow *The Jepson Manual* (Hickman 1993). Latin names of animals follow *A Field Guide to Western Reptiles and Amphibians* (Stebbins 1985) for reptiles and amphibians, *California Mammals* (Jameson and Peeters 1988) for mammals, American Ornithologists' Union (1983, 1989) and National Audubon Society, *The Sibley Guide to Birds* (2000) for birds, and *American Insects: A Handbook of the Insects of America North of Mexico* (Arnett 2000) for insects.

2.2) Habitat Assessment Survey Methods

L&L biologist Guy Bruyea visited the project area on August 1, 2018 to describe vegetation and habitat and evaluate probabilities that special status animals and plants might occur within the project site. The weather was sunny and clear, with temperature ranging between 75° to 86° F. Little or no wind was present.

Table 1. Survey dates and conditions.

Date	Time	Weather	Wind	Biologist	Purpose
8/1/2018	0715-0900	Sunny/Clear, 75-86° F	0-1 mph	Bruyea	HA

A total of about 1.75 person-hours were spent on the site. All habitat types onsite were visited on foot. The site was surveyed by conducting a series of transects across the subject property where possible, stopping periodically for observations and notations. A general habitat map and field notes were completed at the time of the survey. All field surveys were conducted during daylight hours. Digital photographs were taken to record the condition of the site during the present survey.

Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in Abrams (1923, 1944, 1951, 1960), Abrams and Ferris (1960), Hickman (1993), Munz (1974), and Parker (1999). These procedures provide a general assessment of habitat and vegetation on a site and act as a tool to determine the probability of special status species occurring onsite. A species list is included in Appendix A (Table 3).

3.0) RESULTS

3.1) Literature Review Results

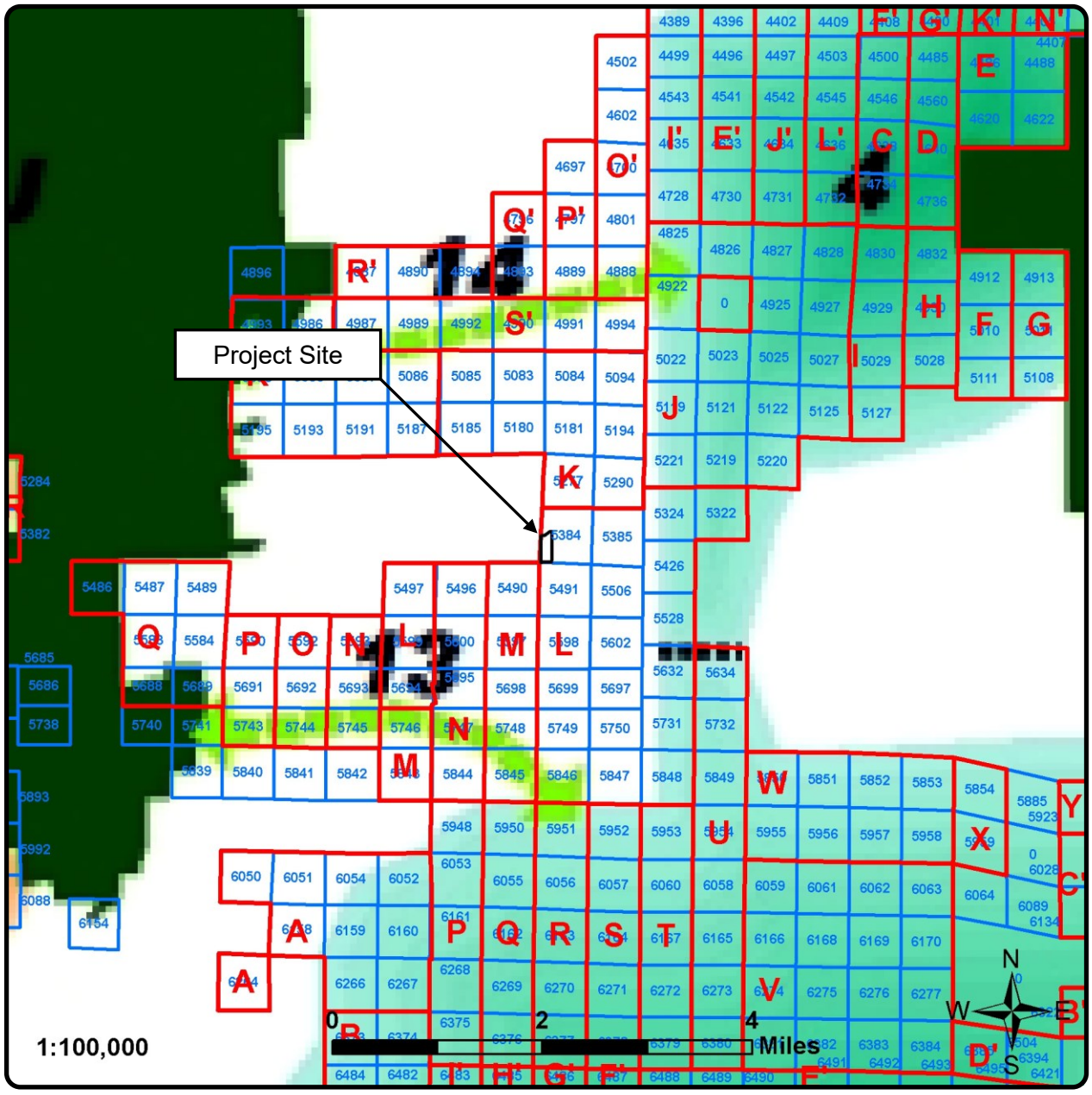
Certain plants and animals have been listed as threatened or endangered under state or federal Endangered Species Acts. Other species have not been formally listed, but declining populations or habitat availability are reasons for concern regarding their long-term viability. These species are included in lists compiled by resource management agencies or private conservation organizations. In this report the term "special status species" refers to all species included in one or more compendia or formal list of threatened or endangered species. The CNDDB was examined to determine if sensitive species (in particular those "not adequately conserved" under the MSHCP) have been previously documented onsite.

The RCA MSHCP Information App (http://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=2ba3285ccc8841ed978d2d825e74c5fa) identifies the site as needing to be assessed with regard to potential habitat and/or presence/absence of no species; however, the parcel is located within Cell Group L and Cell 5384 (Figure 5). The objective for Cell Group L is:

> Conservation within this Cell Group (L) will contribute to assembly of Proposed Linkage 13. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, riparian scrub, woodland and forest habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Groups M to the west and S to the south. Conservation within this Cell Group will range from 5%-15% of the Cell Group focusing in the southwestern portion of the Cell Group.

As seen in Figure 5, Criteria Cell 5384 is not adjacent to Group M or Group S. The project site is also not located within the southwestern portion of Cell Group L (it is in the northwestern portion of the Cell Group). The project site is also not adjacent to any undisturbed native chaparral or coastal sage scrub. It is surrounded by roads and associated developments on three (3) sides (north, east, and south) and by clearly disturbed area that is outside of any Criteria Cell on the west (see Figure 3). Since the project site is nowhere near where conservation is desired and significant areas are present and available in the location desired for Linkage 13, the proposed lot split and future building of a house and workshop in Parcel 1 will not interfere with implementation of the MSHCP.

Since the site is located inside an MSHCP Cell Group, biological constraints onsite (associated with the MSHCP) are focused on species associated with riparian/riverine and vernal pool habitats and compliance with urban/wildlands interface policies where adjacent land may be conserved.



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 5

MSHCP Cells, Cell Groups, & Linkages

Hansen Parcel Division, Hemet Area
County of Riverside, California

3.2) Vegetation Series

3.2.1) Disturbed/Ruderal

Excluding ornamental trees and other landscape vegetation, much of the site is only sparsely inhabited with non-native annuals due to developments and ongoing disturbances such as clearing and mowing (Figure 6). The most commonly observed low-growing annuals include filaree (*Erodium* species), non-native grasses (*Bromus* and *Avena* spp.), Mediterranean grass (*Schinus barbatus*), doveweed (*Eremocarpus setiger*), and wild heliotrope (*Heliotropium curassavicum*). Other conspicuous plants less commonly observed in these areas include mustards (*Hirschfeldia* and *Sisymbrium* spp.), horehound (*Marrubium vulgare*), tocalote (*Centaurea melitensis*), western jimsonweed (*Datura wrightii*), slender buckwheat (*Eriogonum gracile*), and tarplant (*Deinandra* species).

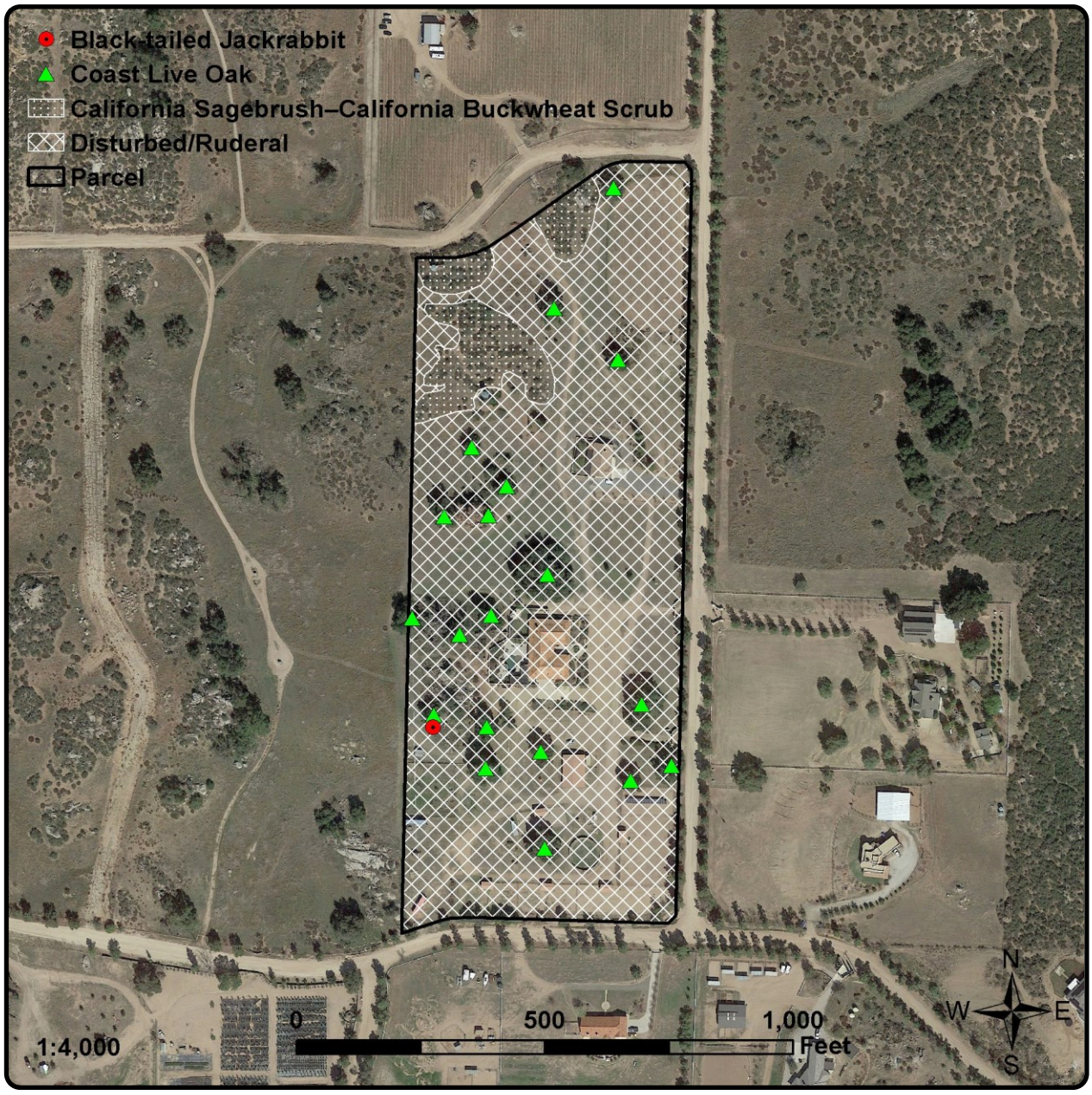
Several rocky outcrops were observed onsite and were inhabited with mostly non-native grasses. Other plants observed in association with these outcrops include phacelia (*Phacelia* species), figwort (*Scrophularia californica*), California everlasting (*Gnaphalium californicum*), and cudweed aster (*Lessingia filaginifolia*).

3.2.2) California Sagebrush–California Buckwheat Scrub *Artemisia californica–Eriogonum fasciculatum* Shrubland Alliance

The northwestern portion of the site (which includes a low-lying hilltop and gentle east, south, and north-facing slopes) is somewhat less disturbed and inhabited with pockets of chamise (*Adenostoma fasciculatum*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemesia californica*), yellow bush penstemon (*Keckiella antirrhinoides*), blue elderberry (*Sambucus mexicana*), California matchweed (*Gutierrezia californica*), deerweed (*Acmisphon glaber*), and other native plants associated with mixed chaparral and Riversidean sage scrub (Figure 6).

Table 2. Vegetation series present onsite.

Vegetation Series Present	Quantity Present (acres)
Disturbed/Ruderal	16.79
California Sagebrush–California Buckwheat Scrub	1.39



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 6

Habitat Map
(Photo obtained from Google Earth, February 2018)

Hansen Parcel Division, Hemet Area
County of Riverside, California

3.3) Plant Species

A total of 49 plant species were identified onsite during the survey. No special status plant species were observed. This habitat assessment was conducted in early August after most annual plant species had fully senesced, so many common native and non-native plants expected to occur onsite were not observed due to season. In addition, rainfall amounts in the late winter and spring months of 2018 were below normal and it was a relatively "unproductive" year for spring annual germination and subsequent identification. A list of all plant species observed during surveys is presented in Appendix A.

Mature coast live oak (*Quercus agrifolia*) trees are present throughout the property (Figure 6), with the largest tree located just north of the main residence. Coast live oaks are present as single trees and do not form a closed canopy forest. Unmown areas beneath the oak trees consist primarily of non-native grasses, but native plants (mostly senesced annuals) were also observed.

Two (2) small Engelmann oak (*Quercus engelmannii*) trees are present in front of the main residence onsite. These native trees, in addition to other native plants such as manzanita (*Arctostaphylos* species), were planted by the homeowner for ornamental landscaping purposes. Other ornamental trees planted along the eastern and southern site boundaries (along roads) include (but are not limited to) sycamore (*Platanus racemosa*), bottle tree (*Brachychiton populneus*), pine (*Pinus* species), sweetgum (*Liquidamber* species), and California pepper (*Schinus molle*).

3.4) Jurisdictional Areas (MSHCP Riparian/Riverine and Vernal Pool Habitat)

Soil types (Greenfield sandy loam and Cieneba rocky sandy loam) are not consistent with an alkali playa or vernal pool complex and no pools or depressions or evidence of ponding water (such as mud cracks in soils) characteristic of vernal pool habitat were identified on the subject property. No MSHCP species listed for protection associated with riparian/riverine areas or vernal pools were observed. No drainages were identified onsite.

3.5) Wildlife Species

A total of 26 wildlife species were observed or detected during the survey. No federal or state-listed endangered or threatened species were observed. A list of all observed wildlife species is included in Appendix A.

3.5.1) Invertebrates

Riverside Fairy Shrimp & Vernal Pool Fairy Shrimp

Due to soil types present (Greenfield sandy loam and Cieneba rocky sandy loam) and lack of evidence indicating pooling water (i.e., no road ruts that might contain pooled water and no evidence of cracked clay soils where water has been held), potential fairy shrimp habitat is not present onsite. The project site contains moderately sloped terrain that does not allow for pooling of water. Additionally, the rocky and sandy soils onsite absorb water quickly and prevent any long-term pooling. No fairy shrimp or potential fairy shrimp habitat was observed during this study and it has been determined that no habitat capable of supporting fairy shrimp is present onsite.

3.5.2) Amphibians and Reptiles

One (1) reptile species, side-blotched lizard (*Uta stansburiana*), was identified during the survey.

3.5.3) Birds

A total of 19 bird species were identified during the survey (see Appendix A). None of the birds are considered "special status species" (threatened, endangered, etc.); however, many are protected by the Migratory Bird Treaty Act. Mature trees onsite and surrounding the site nearby provide potential nesting habitat for these protected bird species.

3.5.4) Mammals

Six (6) mammal species were identified onsite during the survey (see Appendix A), including one (1) special status species, black-tailed jackrabbit.

3.6) Sensitive Biological Resources

One (1) sensitive wildlife species was observed onsite during the survey, black-tailed jackrabbit (*Lepus californicus*, herein BTJA). The California Department of Fish and Wildlife considers BTJA a special species of concern to California. BTJA has been historically documented from the general area in the California Natural Diversity Database (CNDDB).

Based on a CNDDB records search, the site lies within or immediately adjacent to occupied habitat of the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*, herein SKR).

A trapping survey for this nocturnal species was not performed as part of the daytime habitat assessment. Several unidentified small mammal burrows are present along portions of the western site boundary, primarily in the northwestern corner of the site where pockets of relatively undisturbed chaparral and sage scrub remain. A mixture of disturbed and relatively undisturbed open space (some grassland) is present west of the site and may serve as potential good quality habitat for SKR. Other sensitive species documented by the CNDDB from the general area (within 1-3 miles of the site) include the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*, herein QCB), the federally threatened California gnatcatcher (*Polioptila californica californica*, herein CAGN), coast horned lizard (*Phrynosoma blainvillii*, herein CHL), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, herein LAPM). No QCB, CAGN, CHL, or LAPM were observed during the survey and high quality habitat capable of supporting these species is not present on much of the site due to developments, various disturbances, and lack of good quality undisturbed natural habitat.

Based on site conditions, occurrence potential for sensitive plant species appears to be low or absent for the site. Botanical surveys during the late winter and spring months (February to May), especially in years with average or above average winter-spring rainfall amounts, would be more conclusive regarding current overall botanic diversity of the site.

4.0) CONSISTENCY WITH MSHCP GOALS

The purpose of this study was to examine the subject property to determine presence/absence of biological resources on the property, potential for sensitive species to occur, and consistency of the planned lot split with MSHCP goals and objectives.

The proposed action is the split of an occupied residential property into three (3) parcels and does not include any grading, building, or offsite improvements. Any future proposed grading, building, or offsite improvements will require subsequent evaluation and approval by the county of Riverside. L&L has noted the TPM indicates the potential for a future residence and shop building on Parcel 1. This note was placed on the map at the request of the land owner and is not a part of L&L's evaluation. No building or grading is planned at this time and no evaluation of any building or grading was considered in the report. No offsite improvements were disclosed, have been planned, or evaluated in this report.

During our work effort L&L evaluated whether vegetation and/or habitat for special status species exists onsite and whether any MSHCP riparian/riverine habitat, vernal pools, or fairy shrimp habitat are within project boundaries. Because the parcel is located within Cell 5384 (of Cell Group L), development activities onsite must also conform to urban/wildlands interface policies where MSHCP conserved habitat is present or might be present in the future.

The effects and recommendations identified are based on the literature review, L&L's biological knowledge of species and habitats in the site vicinity, and the biological field survey. The information in this section is intended to serve as a planning tool for making decisions about future development of the project site.

4.1) MSHCP Riparian/Riverine, Vernal Pool, and Fairy Shrimp (MSHCP Section 6.1.2)

The parcel does not contain riparian/riverine, vernal pool, or fairy shrimp habitat. Due to soil types present (Greenfield sandy loam and Cieneba rocky sandy loam) and lack of evidence indicating pooling water (i.e., no road ruts that might contain pooled water and no evidence of cracked clay soils where water has been held), potential fairy shrimp habitat is not present onsite. The project site contains moderately sloped terrain that does not allow for pooling of water. Additionally, the rocky and sandy soils onsite absorb water quickly and prevent any long-term pooling. No fairy shrimp or potential fairy shrimp habitat was observed during this study and it has been determined that no habitat capable of supporting fairy shrimp is present onsite.

No evidence of streambed or banks, ponded areas, or wetlands of other riverine features, such as canals, aqueducts, or irrigation ditches, were found within the study area. No riparian habitat associated with riverine areas was found within the study area. As a result, there is no suitable habitat for special-status riparian bird species protected under Section 6.1.2, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*). Due to lack of habitat or potential habitat present (no areas of pooling water that might be inhabited by fairy shrimp), parcel division and associated potential additional development is not expected to impact any of these resources and is consistent with Section 6.1.2 of the MSHCP.

4.2) Criteria Area Cell Group, Plant, and Additional Species (MSHCP Sections 6.1.3 & 6.3.2)

The parcel is located within Cell 5384 of Cell Group L (Figure 5). The objective for Cell Group L is:

> Conservation within this Cell Group (L) will contribute to assembly of Proposed Linkage 13. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, riparian scrub, woodland and forest habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Groups M to the west and S to the south. Conservation within this Cell Group will range from 5%-15% of the Cell Group focusing in the southwestern portion of the Cell Group.

Specific objectives and goals are not listed out for specific Cells within Cell Group L. Proposed Linkage 13 is located far south (4-5 miles) of the project area. Cell Group M is a 5 mile long Cell Group and only the extreme northeast corner of the northernmost Cell of the Cell Group touches the project area's southwest corner (see Figure 5). The parcel is at least 5 miles from the northernmost end of Cell Group S. Since the parcel has been occupied for a significant period, habitat onsite is mostly disturbed and very little of the habitat types listed in the objectives it present onsite. The small amount that is present is on the northern end of the parcel and not adjacent to Cell Group M.

The parcel is not positioned where the 5-15% conservation goal within all of Cell Group L is best suited and does not contain and is not adjacent to the habitat desired for conservation (chaparral or coastal sage scrub). Significant area is present and available for conservation in the portion of Cell Group L of greatest interest for maintenance of Linkage 13 and that area is located far away from the project area. Therefore, division of the parcel and additional potential development in Parcel 1 of a house and workshop is consistent with MSHCP Criteria Cell and Cell Group requirements.

Narrow Endemic and Criteria Area Plant Species

According to MSHCP mapping layers and the Western Riverside County Regional Conservation Authority web site (http://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd), the project site is not located within any area requiring surveys or habitat assessments for Narrow Endemic or Criteria Area plant species covered by the MSHCP.

Additional Survey Needs Species

According to MSHCP mapping layers and the Western Riverside County Regional Conservation Authority web site (http://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd), the site is not located within any area requiring surveys or habitat assessment surveys for amphibians, mammals, burrowing owls, or additional needs plant species covered by the MSHCP.

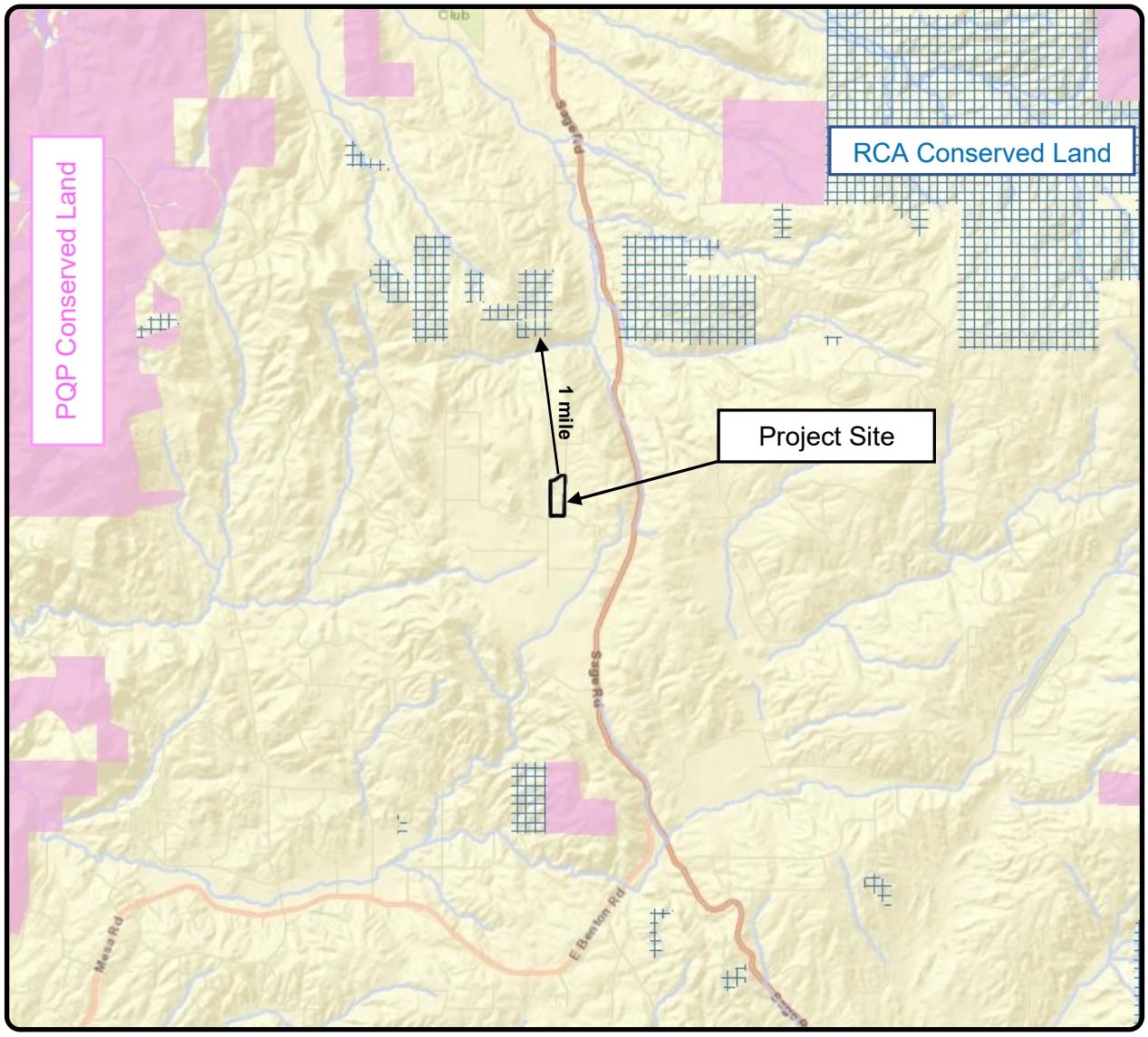
4.3) Urban/Wildlands Interface (MSHCP Section 6.1.4)

While the site is not currently located near any MSHCP conserved area (the nearest being 1 mile away to the north, see Figure 7), areas surrounding the parcel might potentially be conserved through some future property owner interaction with the county (although, all areas within the Cell Group adjacent to the parcel [to the north, south, and east] are already developed/disturbed and impacted, with the exception of the area east of Komodo Road along the northeastern portion of the parcel). Because of the potential for surrounding land conservation in the future (that being, realistically, only the area east of Komodo Road along the northeastern portion of the parcel), development activities onsite within the divided parcel should follow standards and requirements associated with land developed adjacent to already conserved area. The following guidelines apply:

Drainage: Incorporate measures to control the quantity and quality of runoff from the site entering MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Area.

Toxics: Land uses proposed in proximity to MSHCP Conservation Area that use chemicals or generate bioproducts, such as manure, that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.

Lighting: Night lighting shall be directed away from MSHCP Conservation Area to protect species within MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated into project designs to ensure ambient lighting in MSHCP Conservation Area is not increased.



L&L Environmental, Inc.

BIOLOGICAL AND CULTURAL INVESTIGATIONS AND MONITORING

RBFH-18-665
August 2019

Figure 7

MSHCP Conserved Land in the Vicinity

Hansen Parcel Division, Hemet Area
County of Riverside, California

Noise: Proposed noise generating land uses affecting MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.

Invasives: Consider the invasive, non-native plant species listed in Table 6-2 of the MSHCP in approving landscape plans to avoid the use of invasive species for those portions of Development that are adjacent to MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to MSHCP Conservation Areas, species considered in the planting plans, resources being protected within MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features. MSHCP Table 6-2 has been included in Appendix A for reference purposes.

Barriers: Proposed land uses adjacent to MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

Grading: Manufactured slopes associated with the proposed site development shall not extend into MSHCP Conservation Area.The Tentative Parcel Map (TPM 37655) received in January 2019 indicates that the current parcel (APN 470-200-010) will be divided into three (3) parcels. The southern two (2) parcels already contain houses and other buildings. There are no immediate development plans for the northern parcel (Parcel 1), but it may at some future time contain a house, workshop, and driveway. Based upon the planned additional development indicated, no oak trees will be impacted. For the purposes of Joint Project Review (JPR) the entire site is considered permanently impacted, with the exception of the oak trees.

4.4) Additional Recommended Actions

4.4.1) Preconstruction Clearance Survey for Nesting Birds

Trees and brush suitable for nesting are present within and around the site. Presence of this potential habitat is the basis for recommendation a preconstruction survey (valid for 2-30 days, depending upon the agency) for nesting birds protected by the Migratory Bird Treaty Act prior to any site disturbance started during the nesting season (February 1 through August 31). If protected nesting birds are present, avoidance of nest sites will be required and a buffer of 200-500 ft. (depending on the species) is recommended until juvenile birds have fledged and/or an authorized biologist has verified that the nest has become inactive.

4.4.2) Mapping and Evaluation of Oak Trees

Riverside County has adopted “oak tree management guidelines” (http://planning.rctlma.org/Portals/0/devproc/guidelines/oak_trees/oak_trees.html) and the parcel contains multiple mature coast live oaks. The guidelines state that “A biological study will be required for all applications on properties that contain oak trees.” The guidelines go on to specify what is required in the tree inventory and detail the steps to be employed for avoidance and mitigation/replacement. The current survey did not include collection of information necessary for the study; therefore, a tree survey will be required.

4.4.3) Stephen’s Kangaroo Rat Fee

Potential habitat for Stephen’s kangaroo rat is present onsite (mostly within undisturbed and less disturbed areas). However, the parcel is located within the Stephen's Kangaroo Rat Plan and Fee Area and no focused surveys are required. Payment of the fee will be required.

5.0) REGULATORY ENVIRONMENT

5.1) Federal Endangered Species Act

The U. S. Fish and Wildlife Service (USFWS), under the auspices of the federal Endangered Species Act (FESA) of 1973 (as amended), manages and protects species listed as endangered or threatened. An endangered species is defined as a species "in danger of extinction throughout all or a significant portion of its range" while a threatened species is defined as "likely to become endangered in the foreseeable future."

"Take" of listed species is prohibited under Section 9 (a)(1)(B) of the FESA. The term "take" is defined as follows in Section 3 (18) of the FESA: "harass, harm, pursue, hunt, shoot, wound, trap, kill, capture or collect or to engage in any such conduct." Harm is further defined as significant habitat alteration that results in death or injury to listed species by significantly impairing behavior patterns such as breeding, feeding, or sheltering. The USFWS can issue a permit for "take" of listed species incidental to otherwise lawful activities. Procedures for obtaining a permit for incidental take are identified under Section 7 of FESA for federal properties or where federal actions are involved and are identified under Section 10 of FESA for non-federal actions. The County of Riverside has been issued a Section 10(a) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which this project falls within.

5.2) Jurisdictional Determination of Wetlands, "Waters of the U. S."

Three agencies generally regulate activities within streams, wetlands, and riparian areas in California: (1) the Army Corps of Engineers (ACOE) regulates activities under Section 404 of the federal Clean Water Act; (2) the Regional Water Quality Control Board (RWQCB) regulates activities under Section 401 of the federal Clean Water Act (CWA); and (3) the California Department of Fish and Wildlife (CDFW) regulates activities within wetlands under Fish and Game Code Sections 1600-1616.

5.2.1) United States Clean Water Act, Section 404

The ACOE has jurisdiction over "Wetlands" and "Waters of the United States" under Section 404 of the Clean Water Act (CWA). Permitting is required for activities that will result in discharge of dredge or fill material into Waters of the United States or adjacent wetlands and associated habitat. By definition these include all waterways, streams, intermittent streams, and

their tributaries that could be used for interstate commerce. The term "interstate commerce" has been broadly interpreted to include use by migratory waterfowl and out-of-state tourism. In non-tidal waters jurisdictional limits extend to the ordinary high water mark (OHWM), which is defined as that line on the shore established by fluctuations of water and indicated by physical characteristics such as clear natural line impression on the bank, shelving, changes in the character of soil, and destruction of the surrounding area. The upstream limit of ACOE jurisdiction is that point on the stream where the OHWM is no longer perceptible. Since flow patterns vary drastically from event to event alluvial fans do not always exhibit an OHWM or other evidences of repeated water flow. That portion of an alluvial fan that experiences sheet flow is not generally regulated as Waters of the United States, however an inter-braided streambed, evidenced by an OHWM, is within ACOE jurisdiction. Vernal pools and other types of wetlands are also regulated by the ACOE as Waters of the United States.

5.2.2) United States Clean Water Act, Section 401

The RWQCB has jurisdiction over similar "Wetlands" and "Waters of the United States" under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act under the California Water Code. Permitting is required for activities that will result in a discharge of soils, nutrients, chemicals, detrital materials, or other pollutants into Waters of the United States or adjacent wetlands that will affect water quality of those bodies and the area watershed.

5.2.3) California Department of Fish and Game Code, Section 1600

The CDFG, through provisions of the CDFG Code (Sections 1600-1616), is empowered to issue agreements ("Streambed Alteration Agreement") for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. Streams and rivers are defined by the presence of a channel bed, banks, and intermittent flow. CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFG.

Determining limits of a wetland is not typically done in obtaining CDFG Agreements because the intent of the 1600 program is to safeguard riparian associated wildlife habitat. Riparian habitat includes willows (*Salix* sp.), mulefat (*Baccharis salicifolia*), and other vegetation typically associated with the banks of a stream or lake shoreline. In most situations wetlands associated with a stream or lake will fall within the limits of riparian habitat. Thus, the limits of CDFG jurisdiction based on riparian habitat will automatically include any wetland areas and may include additional areas that do not meet ACOE criteria for soils and/or hydrology (e.g., where

riparian woodland canopy extends beyond the banks of a stream away from frequently saturated soils).

5.3) California Department of Fish and Wildlife

5.3.1) California Endangered Species Act

California Endangered Species Act (CESA) definitions of endangered and threatened species parallel those defined in the FESA. The CESA defines an endangered species as ". . . a native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes including loss of habitat, change in habitat, over exploitation, predation, competition or disease." Endangered species are in serious danger of becoming extinct and threatened species are likely to become endangered species in the foreseeable future (according to Sections 2062 and 2067, respectively, of the California Fish and Game Code). Candidate species are those under formal review by the CDFW for listing as endangered or threatened (Section 2067). Prior to being considered for protected status the CDFW designates a species as being of special concern. Species of special concern are those for which the CDFW has information indicating decline. The County of Riverside has been issued a permit from the CDFW for the Western Riverside County MSHCP, which this project falls within.

5.3.2) California Department of Fish and Game Code, Section 1600

This section allows the CDFW to issue agreements ("Streambed Alteration Agreement") for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. A detailed discussion of Section 1600 under the Fish and Game Code can be found in section 5.2.3 above.

5.3.3) California Natural Diversity Database

The California Natural Diversity Database (CNDDB) is a database that ranks overall condition of sensitive species and vegetation communities on global (throughout its range) and state (within California) levels. Additionally, subspecies and varieties are assigned a ranking for global condition as well. Ranking is numerical ranging from 1 to 5, with 1 indicating very few remaining individuals or little remaining habitat and 5 indicating a demonstrably secure to ineradicable population condition. State ranks may also include a threat assessment ranging from 1 (very threatened) to 3 (no current threats known).

5.3.4) Take of Nesting Birds

Sections 3503, 3503.5, and 3513 of the Fish and Game Code stipulate the following:

- Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto.

- Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto.

- Section 3513 states that it is unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act (MBTA).

5.4) California Native Plant Society

The California Native Plant Society (CNPS) has cataloged California's rare and endangered plants into lists according to population distributions and viability. These lists are numbered and indicate the following: (1A) presumed extinct in California; (1B) rare, threatened, or endangered throughout their range; (2) rare, threatened, or endangered in California, but more common in other states; (3) more information is needed to establish rarity; and (4) plants of limited distribution in California (i.e., naturally rare in the wild) but whose populations do not appear to be susceptible to threat.

5.5) California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires identification of environmental effects from discretionary projects. Significant effects are to be mitigated by avoidance, minimization, rectification, or compensation whenever possible.

Effects to all state and federal listed species are considered significant under CEQA. In addition to formally listed species, CEQA Section 15380(d) considers effects to species that are demonstrably endangered or rare as important or significant. These definitions can include state designated species of special concern, federal candidate and proposed species, CNDDB tracked species, and California Native Plant Society 1B and 2 plants.

Appendix G of the CEQA Guidelines specifically addresses biological resources and encompasses a broad range of resources to be considered.

5.6) Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests, or eggs. The MBTA requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (February 1 through August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered “take” and constitute a violation of the MBTA.

5.7) Western Riverside County Multiple Species Habitat Conservation Plan

The County of Riverside, eight (8) additional land jurisdictions, and 14 cities have prepared a Multiple Species Habitat Conservation Plan (MSHCP). The plan, under development by the Riverside County Integrated Project, will build upon existing preserves and attempts to provide connectivity and wildlife corridors throughout the region. The plan proposes to conserve approximately 500,000 acres and 146 different species. Approximately 347,000 acres are anticipated to be conserved on existing Public/Quasi-Public lands with additional contributions of approximately 153,000 acres from willing sellers (http://www.rcip.org).

The MSHCP was approved by the county on June 17, 2003 and an Implementation Agreement (IA) between the USFWS, the CDFW, and the county was executed and an associated USFWS Section 10(a)(1)(B) Permit (No. TE-088609) was issued on June 22, 2004. The permit grants take authorization for certain species identified in Attachment 2 of the permit as "Covered Species Adequately Conserved."

The MSHCP establishes seven (7) core reserve areas and associated linkages between proposed and existing core areas. The MSHCP divides areas into Cells using USGS coordinates. According to the RCA MSHCP Information App (http://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=2ba3285ccc8841ed978d2d825e74c5fa), the parcel composing the current project site is located within REMAP Area Plan. Conservation efforts for the project site will be evaluated with regard to Criteria Cell/Group goals, sensitive species identified as not

adequately conserved and observed onsite, riverine/riparian or vernal pool habitat and their associated sensitive species (if located onsite), fairy shrimp, jurisdictional areas, and sage scrub. The RCA MSHCP Information App indicates no habitat assessments are required on the property.

Following completion of surveys, the proponent must undergo a Habitat Acquisition and Negotiation Strategy (HANS) with the County of Riverside if the site falls within a Criteria Cell. If a single family home or mobile home is to be placed on an existing legal lot permitting will be reviewed according to the procedures outlined in MSHCP Section 6.1.1, *Expedited Review Process for Single-Family Homes or Mobile Homes To Be Located on an Existing Lot Within the Criteria Area*. The project site is located within Cell Group L of the Wilson Valley/Sage subunit. The listed criteria for Cell Group L are as follows:

> Conservation within this Cell Group (L) will contribute to assembly of Proposed Linkage 13. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, riparian scrub, woodland and forest habitat. Areas conserved within this Cell Group will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell Groups M to the west and S to the south. Conservation within this Cell Group will range from 5%-15% of the Cell Group focusing in the southwestern portion of the Cell Group.

Section 6.1.2 (Riparian/Riverine Habitat)

Section 6.1.2 of the MSHCP requires an assessment of the potentially significant effects of the proposed project on Riparian/Riverine areas, and vernal pools as currently required by CEQA using available information augmented by project-specific mapping. Riparian/Riverine areas and vernal pools are defined as follows:

- Riparian/Riverine Areas are lands that have flow for all or a portion of the year and which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.

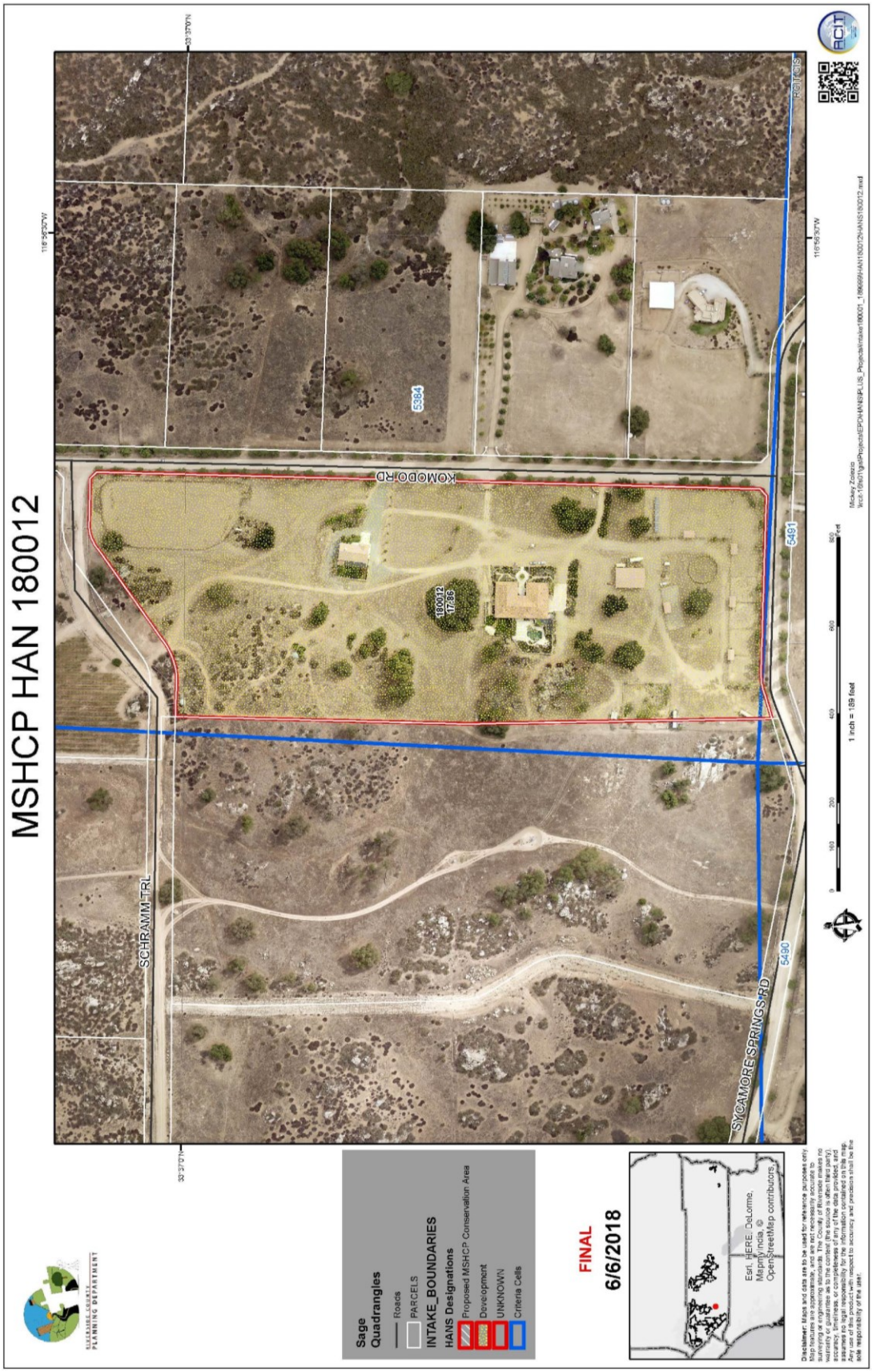
- Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's

wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses, to which it has been subjected, and weather and hydrologic records.

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

HAN Intake Map

The HAN Intake Map produced by Riverside County for MSHCP HAN 180012 is included on the next page for reference purposes.


MSHCP HAN 180012
SCHRAMM TRL
KOMODO RD
SYCAMORE SPRINGS RD
5384
5491
5490
180012
17.86
1 inch = 189 feet
Sage
Quadrangles
Roads
PARCELS
INTAKE_BOUNDARIES
HANS Designations
Proposed MSHCP Conservation Area
Development
UNKNOWN
Criteria Cells
FINAL
6/6/2018
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors,
PLANNING DEPARTMENT

6.0) REFERENCES

Abrams, L. 1923-1951. *Illustrated Flora of the Pacific States*, Volumes I-III. Stanford University Press, Stanford, California.

Abrams, L. and R. Ferris. 1960. *Illustrated Flora of the Pacific States*, Volume IV. Stanford University Press, Stanford, California.

Arnett, Ross H. Jr. 2000. American *Insects: A Handbook of the Insects of America North of Mexico*. CRC Press, New York, New York. 1003 pp.

Brown, David E. 1994. *Biotic Communities: Southwestern United States and Mexico*. University of Utah Press, Salt Lake City, Utah. 342 pp.

California Department of Fish and Wildlife. 2018. Natural Diversity Database.

County of Riverside Environmental Programs Department. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area, March 29, 2006.

Dudek & Associates, Inc. 2003. Western Riverside County MSHCP, Vol. I. The Plan.

Dudek & Associates, Inc. 2003. Western Riverside County MSHCP, Vol. II-A through E, The MSHCP Reference Document.

Hickman, J. (editor). 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley, California.

Jameson, E. W. and H. J. Peeters. 1988. *California Mammals*. University of California Press, Berkeley.

Munz, Philip A. 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.

Parker, Robert et al. 1999. *Weeds of the West*. The Western Society of Weed Science. Newark, California. 630 pp.

Recon. 1985. The Distribution, Status, and Conservation of Vernal Pool and Alkali Playa Wetlands of the Upper Salt Creek Drainage, Hemet, California.

Sawyer, John O. and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California. 471 pp.

Schoenherr, Allan A (editor). 1990. *Endangered Plant Communities of Southern California*. Southern California Botanists, Claremont, California. 114 pp.

Sibley, David Allen. 2000. *The Sibley Guide to Birds*. Alfred A. Knopf, Inc., New York, New York. 545 pp.

Small, Arnold. 1994. *California Birds: Their Status and Distribution*. Ibis Publishing Company, Vista, California. 342 pp.

Stebbins, R. C. 1985. *Western Reptiles and Amphibians*. Houghton Mifflin Company, Boston Mass.

U. S. Department of the Interior, Fish and Wildlife Service. 1999. Endangered and threatened wildlife and plants; review of plant and animal taxa that are candidates or proposed for listing as endangered or threatened species. Federal Register 64: 57534-57547 (Oct 25).

U. S. Department of the Interior Geological Survey. 1991. Sage California 7.5-Minute topographic map. USGS, Denver, Colorado.

APPENDIX A

Table 3. List of plant and wildlife species identified on APN 470-200-010. * = non-native species.

Scientific Name	Common Name
Plants	
Anacardiaceae	**Sumac Family**
Schinus molle	Peruvian Pepper*
Schinus polygamus	Huigen*
Asteraceae	**Sunflower Family**
Ambrosia acanthicarpa	Annual Bur-Weed
Artemesia californica	California Sagebrush
Centaurea melitensis	Tocalote*
Conyza canadensis	Horseweed
Deinandra sp.	Tarplant
Gnaphalium californicum	California Everlasting
Gutierrezia californica	California Matchweed
Heterotheca grandiflora	Telegraph Weed
Lessingia filaginifolia	Cudweed Aster
Boraginaceae	**Borage Family**
Amsinckia menziesii var. *intermedia*	Fiddleneck
Heliotropium curassavicum	Wild Heliotrope
Brassicaceae	**Mustard Family**
Hirschfeldia incana	Short-pod Mustard*
Sisymbrium irio	London Rocket*
Caprifoliaceae	**Honeysuckle Family**
Sambucus mexicana	Blue Elderberry
Chenopodiaceae	**Goosefoot Family**
Chenopodium album	Lamb's Quarters*
Salsola tragus	Russian Thistle*
Cucurbitaceae	**Gourd Family**
Marah macrocarpus	Wild-cucumber
Ericaceae	**Heath Family**
Arctostaphylos sp.	Manzanita (ornamental)
Euphorbiaceae	**Spurge Family**
Eremocarpus setiger	Doveweed

Scientific Name	**Common Name**
Plants (continued)	
Fabaceae	**Pea Family**
Acmispon purshianus	Indian Clover*
Acmispon glaber	Deerweed
Cercidium microphyllum	Palo Verde*
Gleditsia tricanthos	Honey Locust*
Fagaceae	**Oak Family**
Quercus agrifolia	Coast Live Oak
Quercus englemannii	Englemann Oak (ornamental)
Oleaceae	**Olive Family**
Fraxinus sp.	Ash*
Geraniaceae	**Geranium Family**
Erodium sp.	Filaree*
Hamamelidaceae	**Witchhazel Family**
Liquidamber sp.	Sweetegum*
Hydrophyllaceae	**Waterleaf Family**
Phacelia sp. (ramosissima?)	Branching Phacelia
Lamiaceae	**Mint Family**
Marrubium vulgare	Horehound*
Rosmarinus officinalis	Rosemary*
Pinaceae	**Pine Family**
Pinus sp.	Pine*
Plantanaceae	**Sycamore Family**
Platanus racemosa	Sycamore (ornamental)
Poaceae	**Grass Family**
Avena barbata	Slender Wild Oat*
Avena fatua	Wild Oats*
Bromus diandrus	Ripgut Brome*
Bromus madritensis ssp. *rubens*	Foxtail Chess*
Schismus barbatus	Mediterranean Grass
Polygonaceae	**Buckwheat Family**
Eriogonum fasciculatum var. *foliolosum*	California Buckwheat
Eriogonum gracile	Slender Buckwheat
Rosaceae	**Rose Family**
Adenostoma fasciculatum	Chamise
Heteromeles arbutifolia	Toyon
Rubiaceae	**Madder Family**
Galium angustifolium	Narrow-leaved Bedstraw

Scientific Name	Common Name
Plants (continued)	
Scrophulariaceae	**Figwort Family**
Keckiella antirrhinoides	Yellow Bush Penstemon
Scrophularia californica	Coast Figwort
Solanaceae	**Nightshade Family**
Datura wrightii	Western Jimsonweed
Sterculiaceae	**Cacao Family**
Brachychiton populneus	Bottle Tree*

* Surveys were not performed immediately adjacent to occupied residential homes on the site, so some non-native plants used for ornamental landscaping purposes are not included on this list. Only conspicuous ornamental plant species (mostly trees and large shrubs along road edges) are included.

Scientific Name	Common Name
Birds	
Acciptiridae	**Hawk Family**
Buteo jamaicensis	Red-tail Hawk
Charadriidae	**Plover Family**
Charadrius vociferus	Killdeer
Columbidae	**Pigeon Family**
Zenaida macroura	Mourning Dove
Corvidae	**Jay and Crow Family**
Aphelocoma californica	California Scrub Jay
Corvus corax clarionensis	Common Raven
Emberizidae	**Warbler, Sparrow Family**
Pipilo crissalis	California Towhee
Melospiza melodia	Song Sparrow
Pipilo maculatus	Spotted Towhee
Fringillidae	**Finch Family**
Carduelis psaltria	Lesser Goldfinch
Mimidae	**Mockingbird Family**
Mimus polyglottos polyglottos	Northern Mockingbird
Odontophoridae	**Quail Family**
Callipepla californica californica	California Quail
Paridae	**Titmouse Family**
Baeolophus inornatus	Oak Titmouse

Scientific Name	Common Name
Birds (continued)	
Picidae	**Woodpecker Family**
Melanerpes formicivorus	Acorn Woodpecker
Picoides nuttallii	Nuttall's Woodpecker
Sturnidae	**Starling Family**
Sturnus vulgaris	European Starling
Trochilideae	**Hummingbird Family**
Calypte anna	Anna's Hummingbird
Calypte costae	Costa's Hummingbird
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	Black Phoebe
Sayornis saya	Say's Phoebe
Mammals	
Canidae	**Dog, Fox & Coyote Family**
Canis latrans	Coyote (sign)
Canis domesticus	Domestic Dog
Geomyidae	**Pocket Gopher Family**
Thomomys bottae	Botta's Pocket Gopher (sign)
Leporidae	**Rabbit Family**
Lepus californicus	Black-tailed Jackrabbit
Sylvilagus audubonii	Audubon's Cottontail
Sciuridae	**Squirrel Family**
Spermophilus beecheyi	California Ground Squirrel
Reptiles & Amphibians	
Iguanidae	**Iguanid Family**
Uta stansburiana	Side-blotched Lizard

* Excludes invertebrates

MSHCP TABLE 6-2. PLANTS THAT SHOULD BE AVOIDED ADJACENT TO THE MSHCP CONSERVATION AREA

(Taken Directly from the MSHCP Section 6.1.4)

BOTANICAL NAME	COMMON NAME
Acacia spp. (all species)	acacia
Achillea millefolium var. *millefolium*	common yarrow
Ailanthus altissima	tree of heaven
Aptenia cordifolia	red apple
Arctotheca calendula	cape weed
Arctotis spp. (all species & hybrids)	African daisy
Arundo donax	giant reed or arundo grass
Asphodelus fistulosus	asphodel
Atriplex glauca	white saltbush
Atriplex semibaccata	Australian saltbush
Carex spp. (all species*)	sedge
Carpobrotus chilensis	ice plant
Carpobrotus edulis	sea fig
Centranthus ruber	red valerian
Chrysanthemum coronarium	annual chrysanthemum
Cistus ladanifer (incl. hybrids/varieties)	gum rockrose
Cortaderia jubata [*syn.C. Atacamensis*]	jubata grass, pampas grass
Cortaderia dioica [syn. *C. sellowana*]	pampas grass
Cotoneaster spp. (all species)	cotoneaster
Cynodon dactylon (incl. hybrids varieties)	Bermuda grass
Cyperus spp. (all species*)	nutsedge, umbrella plant
Cytisus spp. (all species)	broom
Delosperma 'Alba'	white trailing ice plant
Dimorphotheca spp. (all species)	African daisy, Cape marigold
Drosanthemum floribundum	rosea ice plant
Drosanthemum hispidum	purple ice plant
Eichhornia crassipes	water hyacinth
Elaegnus angustifolia	Russian olive
Eucalyptus spp. (all species)	eucalyptus or gum tree
Eupatorium coelestinum [syn. *Ageratina* sp.]	mist flower
Festuca arundinacea	tall fescue
Festuca rubra	creeping red fescue
Foeniculum vulgare	sweet fennel
Fraxinus uhdei (and cultivars)	evergreen ash, shamel ash
Gaura (spp.) (all species)	gaura
Gazania spp. (all species & hybrids)	gazania
Genista spp. (all species)	broom
Hedera canariensis	Algerian ivy
Hedera helix	English ivy
Hypericum spp. (all species)	St. John's Wort
Ipomoea acuminata	Mexican morning glory
Lampranthus spectabilis	trailing ice plant
Lantana camara	common garden lantana
Lantana montevidensis [syn. *L. sellowiana*]	lantana
Limonium perezii	sea lavender

TABLE 6-2. PLANTS THAT SHOULD BE AVOIDED ADJACENT TO THE MSHCP CONSERVATION AREA (*Cont.*)

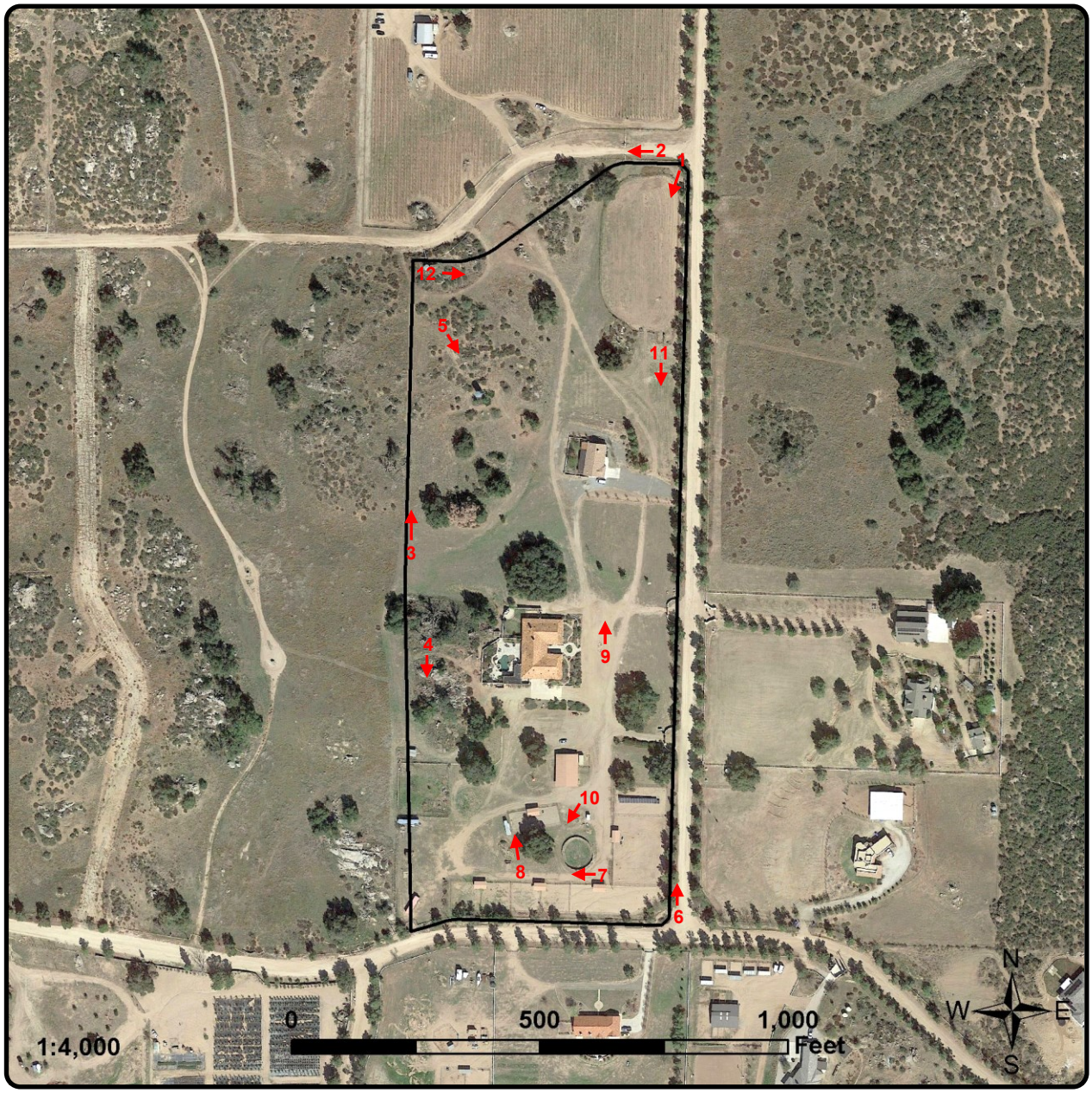
BOTANICAL NAME	COMMON NAME
Linaria bipartita	toadflax
Lolium multiflorum	Italian ryegrass
Lolium perenne	perennial ryegrass
Lonicera japonica (incl. 'Halliana')	Japanese honeysuckle
Lotus corniculatus	birdsfoot trefoil
Lupinus arboreus	yellow bush lupine
Lupinus texanus	Texas blue bonnets
Malephora crocea	ice plant
Malephora luteola	ice plant
Mesembryanthemum nodiflorum	little ice plant
Myoporum laetum	myoporum
Myoporum pacificum	shiny myoproum
Myoporum parvifolium (incl. 'Prostratum')	ground cover myoporum
Oenothera berlandieri	Mexican evening primrose
Olea europea	European olive tree
Opuntia ficus-indica	Indian fig
Osteospermum spp. (all species)	trailing African daisy, African daisy,
Oxalis pes-caprae	Bermuda buttercup
Parkinsonia aculeata	Mexican palo verde
Pennisetum clandestinum	Kikuyu grass
Pennisetum setaceum	fountain grass
Phoenix canariensis	Canary Island date palm
Phoenix dactylifera	date palm
Plumbago auriculata	cape plumbago
Polygonum spp. (all species)	knotweed
Populus nigra 'italica'	Lombardy poplar
Prosopis spp. (all species*)	mesquite
Ricinus communis	castorbean
Robinia pseudoacacia	black locust
Rubus procerus	Himalayan blackberry
Sapium sebiferum	Chinese tallow tree
Saponaria officinalis	bouncing bet, soapwart
Schinus molle	Peruvian pepper tree, California pepper
Schinus terebinthifolius	Brazilian pepper tree
Spartium junceum	Spanish broom
Tamarix spp. (all species)	tamarisk, salt cedar
Trifolium tragiferum	strawberry clover
Tropaelolum majus	garden nasturtium
Ulex europaeus	prickly broom
Vinca major	periwinkle
Yucca gloriosa	Spanish dagger

An asterisk (*) indicates some native species of the genera exist that may be appropriate.

Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, *Fremontia* Vol. 26 No. 4, October 1998, *The Jepson Manual: Higher Plants of California*, and County of San Diego-Department of Agriculture.

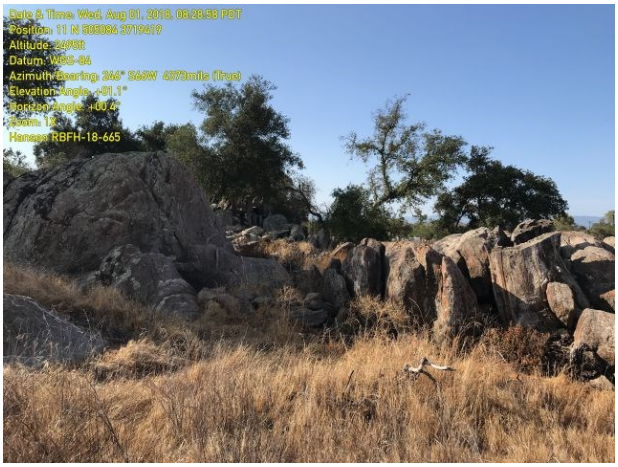
APPENDIX B

Site Photographs




Date & Time: Wed. Aug 01, 2018, 08:37:08 PDT
Position: 11 N 505243 3719727
Altitude: 2512ft
Datum: WGS-84
Azimuth/Bearing: 242° S62W 4302mils (True)
Elevation Angle: -01.5°
Horizon Angle: +02.3°
Zoom: 1X
Hansen RBFH-18-665

(1)


Hansen RBFH-18-665

(4)


Date & Time: Wed. Aug 01, 2018, 08:37:02 PDT
Position: 11 N 505244 3719726
Altitude: 2513ft
Datum: WGS-84
Azimuth/Bearing: 256° S76W 4551mils (True)
Elevation Angle: -00.8°
Horizon Angle: +00.3°
Zoom: 1X
Hansen RBFH-18-665

(2)


Hansen RBFH-18-665

(5)


Position: 11 N 505075 3719467
Altitude: 2492ft
Datum: WGS-84
Azimuth/Bearing: 323° N37W 5742mils (True)
Elevation Angle: +02.7°
Horizon Angle: +02.0°
Zoom: 1X
Hansen RBFH-18-665

(3)


Hansen RBFH-18-665

(6)


Date & Time: Wed, Aug 01, 2018, 07:44:22 PDT
Position: 11 N 505199 3719284
Altitude: 2489ft
Datum: WGS-84
Azimuth/Bearing: 268° S88W 4784mils (True)
Elevation Angle: -02.1°
Horizon Angle: -08.2°
Zoom: 1X
Hansen RBFH-18-665

(7)


Date & Time: Wed, Aug 01, 2018, 07:36:45 PDT
Position: 11 N 505174 3719328
Altitude: 2499ft
Datum: WGS-84
Azimuth/Bearing: 217° S37W 3868mils (True)
Elevation Angle: +00.3°
Horizon Angle: -06.1°
Zoom: 1X
Hansen RBFH-18-665

(10)


Date & Time: Wed, Aug 01, 2018, 07:42:19 PDT
Position: 11 N 505143 3719284
Altitude: 2484ft
Datum: WGS-84
Azimuth/Bearing: 011° N11E 0196mils (True)
Elevation Angle: +07.6°
Horizon Angle: +00.4°
Zoom: 1X
Hansen RBFH-18-665

(8)


Date & Time: Wed, Aug 01, 2018, 08:02:25 PDT
Position: 11 N 505228 3719612
Altitude: 2507ft
Datum: WGS-84
Azimuth/Bearing: 191° S11W 3396mils (True)
Elevation Angle: -08.9°
Horizon Angle: +00.1°
Zoom: 1X
Hansen RBFH-18-665

(11)


Date & Time: Wed, Aug 01, 2018, 07:34:40 PDT
Position: 11 N 505128 3719421
Altitude: 2500ft
Datum: WGS-84
Azimuth/Bearing: 359° N01W 3082mils (True)
Elevation Angle: -01.9°
Horizon Angle: -08.4°
Zoom: 1X
Hansen RBFH-18-665

(9)


Date & Time: Wed, Aug 01, 2018, 08:14:25 PDT
Position: 11 N 505048 3719364
Altitude: 2539ft
Datum: WGS-84
Azimuth/Bearing: 076° N76E 1387mils (True)
Elevation Angle: +07.1°
Horizon Angle: -01.8°
Zoom: 1X
Hansen RBFH-18-665

(12)

Certification

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

DATE: August 30, 2019 SIGNED: _____

Leslie Irish, Principal, L&L Environmental, Inc.
909-335-9897

1) Fieldwork Performed By:

Guy Bruyea
Name

2) Fieldwork Performed By:

_____
Name

3) Fieldwork Performed By:

_____
Name

4) Fieldwork Performed By:

_____
Name

5) Fieldwork Performed By:

_____
Name

6) Fieldwork Performed By:

_____
Name

Check here __ if adding any additional names / signatures below or on other side of page.

BIOLOGICAL REPORT SUMMARY SHEET

Applicant Name: Forest and Jill Hansen
Assessor's Parcel Number(s): 470-200-010
Section, Township and Range: Section 25 of Township 6 South, Range 1 West
Building and Safety Log Number: _____
Case Number: TPM 37655, HAN 180012 Lot/Parcel _____ EA Number _____

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	*(Mark Yes, No, or N/A regarding species findings on the referenced site)*		
		Yes	**No**	**n/a**
	Arroyo Southwestern Toad	Yes	No	n/a
X	Blueline Stream(s)	Yes	No	n/a
	Burrowing Owl	Yes	No	n/a
	Coachella Valley Fringed-toed Lizard	Yes	No	n/a
	Coastal California Gnatcatcher	Yes	No	n/a
X	Coastal Sage Scrub	Yes	No	n/a
	Delhi Sands Flower-loving Fly	Yes	No	n/a
	Desert Pupfish	Yes	No	n/a
	Desert Slender Salamander	Yes	No	n/a
	Desert Tortoise	Yes	No	n/a
	Flat-tailed Horned Lizard	Yes	No	n/a
	Least Bell's Vireo	Yes	No	n/a
X	Oak Trees (Coast Live Oak)	Yes	No	n/a
	Quino Checkerspot Butterfly	Yes	No	n/a
X	Riverside Fairy Shrimp (potential habitat)	Yes	No	n/a
	Santa Ana River Woolystar	Yes	No	n/a
	San Bernardino Kangaroo Rat	Yes	No	n/a
	Slender-horned Spineflower	Yes	No	n/a
X	Stephens' Kangaroo Rat (potential habitat)	Yes	No	n/a
X	Vernal Pools	Yes	No	n/a
X	Wetlands	Yes	No	n/a

MARK ITEM(S) SURVEYED FOR	SPECIES or ENVIRONMENTAL ISSUE of CONCERN	*(Mark Yes, No, or N/A regarding species findings on the referenced site)*		
	Other	Yes	No	n/a
	Other	Yes	No	n/a
	Other	Yes	No	n/a
	Other	Yes	No	n/a
	Other	Yes	No	n/a
	Other	Yes	No	n/a

Species of concern shall be any unique, rare, endangered, or threatened species. It shall include species used to delineate wetlands and riparian corridors. It shall also include any hosts, perching, or food plants used by any animals listed as rare, endangered, threatened, or candidate species by either state, or federal regulations, or for Riverside County as listed by the California Department of Fish and Game Natural Diversity Data Base (CNDDB).

I declare under penalty of perjury that the information provided on this summary sheet is in accordance with the information provided in the biological report or habitat assessment.

L & L Environmental, Inc.
Signature and Company Name

August 30, 2019
Date

10(a) Permit Number (if applicable)

Permit Expiration Date

County Use Only

Received By: _____ Date: _____

PD-B# _____

Attachment E-4

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
(Submit two copies to the County)

Case Number: TPM 37655, HAN 180012 Lot/Parcel No. _____ EA Number _____

Assessor's Parcel Number(s): 470-200-010

Date: August 30, 2019

Biological Resources: (Check the level of impact that applies to the following questions.)

Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?

☐ ■ ☐ ☐

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

☐ ☐ ■ ☐

c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U. S. Wildlife Service?

☐ ■ ☐ ☐

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

☐ ☐ ■ ☐

LEVEL OF SIGNIFICANCE CHECKLIST
For Biological Resources
(Submit two copies to the County)

e) Have a substantial adverse effect on any riparian habitat, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game, or the U. S. Fish and Wildlife Service?

☐ ☐ ■ ☐

f) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption)

☐ ☐ ☐ ■

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐ ■ ☐ ☐

Findings of Fact:

No riparian/riverine or vernal pool habitat is present.
No potential fairy shrimp habitat is present.
Mature oak trees are present onsite.
Nesting habitat for birds protected by the Migratory Bird Treaty Act are present onsite.

Proposed Mitigation:

Preconstruction clearance survey for nesting birds if construction will begin during the nesting season.
Tree survey to map and evaluate coast live oak trees present onsite followed by implementation of county guidelines.

Monitoring Recommended:

None.

Source: CGP Fig. VI.36-VI.40
Revised October 1999

CNDDB Online Field Survey Form Report

California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/

This data has been reported to the CNDDB, but may not have been evaluated by the CNDDB staff

Source code BRU18F0091
Quad code 3311658
Occ. no.
EO index no.
Map index no.

Scientific name: *Lepus californicus bennettii*

Common name: San Diego black-tailed jackrabbit

Date of field work (mm-dd-yyyy): 08-01-2018

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Guy Bruyea

Affiliation: L&L Environmental, Inc.

Address: 721 Nevada Street Suite 307, Redlands, CA 92373

Email: gbruyea@llenviroinc.com

Phone: (909) 335-9897

Other observers:

DETERMINATION

Keyed in: California Mammals (Jameson and Peeters 1988)

Compared w/ specimen at:

Compared w/ image in:

By another person:

Other:

Identification explanation:

Identification confidence: Very confident

Species found: Yes **If not found, why not?**

Level of survey effort: General habitat assessment survey.

Total number of individuals: 1

Collection? No **Collection number:**

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

adults	juveniles	larvae	egg mass	unknown
1				

Age class comment:

Site use description:

What was the observed behavior?

Describe any evidence of reproduction:

Submitted: 09/17/2018 BRU18F0091 Page 1 of 2

SITE INFORMATION

Habitat description: Rural residential with horse corrals.

Slope: Land owner/manager:

Aspect:

Site condition + population viability: Good

Immediate & surrounding land use: Rural residential.

Visible disturbances: Houses and corrals.

Threats:

General comments:

MAP INFORMATION

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	Riverside	Sage	2483	33.61411	-116.94516	505087	3719373	11
1	**Public Land Survey**	**Feature Comment**						
	S T06S R01W 25							

The mapped feature is accurate within: 5 m

Source of mapped feature: GPS and Google Earth by landmarks/trees/buildings

Mapping notes:

Location/directions comments:

Attachment(s):

Submitted: 09/17/2018 BRU18F0091 Page 2 of 2

MSHCP HAN 180012

RIVERSIDE COUNTY
PLANNING DEPARTMENT

Sage Quadrangles

- Roads
- PARCELS

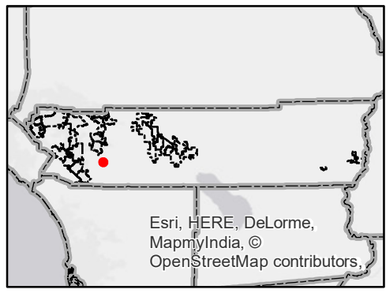
INTAKE_BOUNDARIES

HANS Designations

- Proposed MSHCP Conservation Area
- Development
- UNKNOWN
- Criteria Cells

FINAL

6/6/2018



0 100 200 400 600 800 Feet

1 inch = 189 feet

Mickey Zolezio
\\rcit-16fs01\gis\Projects\EPD\HANS\PLUS_Projects\Intake180001_189999\HAN180012\HANS180012.mxd

A PHASE I AND II CULTURAL RESOURCES ASSESSMENT FOR THE HANSEN LOT SPLIT PROJECT

TPM 37655
RIVERSIDE COUNTY, CALIFORNIA

APN 470-200-010

Project Site Location: Section 25, Township 6 South, Range 1 West, San Bernardino Base and Meridian, as shown on the *Sage* USGS Topographic Quadrangle Map

Prepared on Behalf of:

Forest Hansen
41080 Sycamore Springs Road
Hemet, California 92544
(951) 767-1231

Prepared for:

Riverside County Planning Department
4080 Lemon Street, 12th Floor
Riverside, California 92501
(951) 955-3200

Prepared by:

Tracy A. Stropes, M.A., RPA,
Jillian L.H. Conroy, B.A., and Brian F. Smith, M.A.
Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, California 92064
(858) 484-0915

October 20, 2020

Fieldwork Completed: May 21 and October 7, 2020
Key Words: 20.08 acres; sites Temp-1, Temp-2, and Temp-3; prehistoric bedrock milling features; not significant; monitoring of grading recommended.

Archaeological Report Summary Information

Authors: Tracy A. Stropes, M.A., RPA, Jillian L.H. Conroy, B.A., and Brian F. Smith, M.A.

Prepared by: Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, California 92064
(858) 484-0915

Report Date: October 20, 2020

Report Title: A Phase I and II Cultural Resources Assessment for the Hansen Lot Split Project, TPM 37655, Riverside County, California

Prepared on Behalf of: Forest Hansen
41080 Sycamore Springs Road
Hemet, California 92544
(951) 767-1231

Prepared for: Riverside County Planning Department
4080 Lemon Street, 12th Floor
Riverside, California 92501
(951) 955-3200

Assessor's Parcel Number: 470-200-010

USGS Quadrangle: *Sage, California*

Study Area: 20.08 acres

Key Words: Archaeological survey and testing program; County of Riverside; *Sage* USGS topographic quadrangle; Temp-1, Temp-2, and Temp-3; prehistoric bedrock milling features; not significant; monitoring of grading recommended.

Table of Contents

Section **Page**

Table of Contents (continued)

Section **Page**

Appendices

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

List of Figures

Figure **Page**

List of Figures (continued)

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

List of Plates

List of Tables

Table **Page**

1.0 MANAGEMENT SUMMARY/ABSTRACT

The following report describes the results of the cultural resources survey and testing program conducted by Brian F. Smith and Associates, Inc. (BFSA) for the Hansen Lot Split Project, a 20.08-acre parcel (Assessor's Parcel Number [APN] 470-200-010) located at 41080 Sycamore Springs Road, just south of the city of Hemet within unincorporated Riverside County, California. The project is located within Section 25, Township 6 South, Range 1 West, San Bernardino Base and Meridian, as shown on the USGS *Sage, California* topographic quadrangle map. The applicant proposes to subdivide the property into three parcels for future development.

BFSA conducted an assessment to locate, record, and evaluate any cultural resources identified within the subject property in compliance with the California Environmental Quality Act (CEQA) and following County of Riverside Cultural Resource Guidelines (Draft). The archaeological investigation of the subject property included a review of an archaeological records search performed by BFSA at the Eastern Information Center (EIC) at the University of California at Riverside (UCR). A total of 16 cultural resources are recorded within a one-mile radius of the project, none of which are located within the current project boundaries. In addition, a search of the Sacred Lands Files (SLFs) was requested from the Native American Heritage Commission (NAHC) to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within the project.

The Phase I archaeological survey was conducted on May 21, 2020 and identified three previously unrecorded cultural resources, which were recorded with the EIC at UCR as Sites Temp-1, Temp-2, and Temp-3 (Garrison and Smith 2020). The sites are characterized as isolated bedrock milling features with no observable associated surface artifacts. An Archaeological Test Plan (ATP) was prepared to evaluate the sites and was subsequently approved by the County of Riverside (Garrison and Smith 2020). BFSA conducted the Phase II significance testing and evaluation program for Temp-1, Temp-2, and Temp-3 on October 7, 2020. No artifacts were recovered from the surface of the sites or as a result of the subsurface testing.

1.1 Purpose of Investigation

The purpose of this investigation was to determine if any significant cultural resources would be affected by the proposed land development. This study consisted of processing a records search of previously recorded archaeological sites on or near the property, the completion of an archaeological survey to identify any archaeological resources within the project, and a testing and evaluation program for three cultural resources that may be impacted by the proposed development. The project development map (see Figure 2.0–3) shows the proposed lot split and development locations within the project.

1.2 Major Findings

During the Phase I archaeological survey, three previously unrecorded prehistoric bedrock milling features were identified within the subject property and recorded as Temp-1, Temp-2, and Temp-3 with the EIC at UCR. Subsequently, Phase II testing was conducted at the sites on October 7, 2020 to formally map and record all bedrock milling features, identify any surface or subsurface artifact concentrations, and determine site boundaries. The subsurface investigation was accomplished by excavating three shovel test pits (STPs) at sites Temp-2 and Temp-3, and six STPs at Site Temp-1; however, no artifacts were identified on the surface of the sites or as a result of the subsurface testing within the site boundaries. Because the study of Temp-1, Temp-2, and Temp-3 did not produce any artifacts or subsurface deposits, the sites are evaluated as not meeting the eligibility criteria of CEQA to be Historical Resources.

Department of Parks and Recreation (DPR) site record updates have been prepared and submitted to the EIC at UCR (Appendix B). 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.

1.3 Recommendation Summary

Sites Temp-1, Temp-2, and Temp-3 were evaluated as not significant as assessed against CEQA criteria and are not eligible for listing on the California Register of Historical Resources (CRHR). Due to the presence of the bedrock milling features documenting prehistoric use of this property and the density of bedrock milling features sites within one mile of the project, the potential exists that other unidentified cultural resources may exist on the property that may be exposed during grading. In order to identify any cultural resources uncovered by the development of this project, all earthwork (grading or trenching) required for the proposed development shall be monitored by an archaeologist and a Native American representative.

2.0 INTRODUCTION

BFSA was retained by Forest Hansen to conduct a cultural resources study for the Hansen Lot Split Project located south of the city of Hemet in unincorporated Riverside County. The archaeological study was conducted in order to comply with CEQA and County of Riverside Cultural Resource Guidelines (Draft) with regards to development-generated impacts to cultural resources. The project is located in an area of moderate 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 Riverside County are focused around environments with accessible food and water.

The Hansen Lot Split Project proposes the split of 20.08 acres located at 41080 Sycamore Springs Road, just south of the city of Hemet within unincorporated Riverside County, California (Figure 2.0–1). The project is situated within Section 25, Township 6 South, Range 1 West, San Bernardino Base and Meridian, as shown on the USGS *Sage, California* topographic quadrangle map (Figure 2.0–2). The applicant proposes to subdivide APN 470-200-010 into three parcels for future development (Figure 2.0–3). Currently, Schramm Trail is physically situated outside and north of the planned right-of-way alignment for Schramm Trail (Figure 2.0–4). The portion of Schramm Trail that appears on the project development plan, and which represents a re-routing of the road through the subject property, is likely not going to be constructed.

Principal Investigators Brian F. Smith and Tracy A. Stropes directed the cultural resources study for the project. Project Archaeologist Andrew Garrison and Senior Field Archaeologist Clarence Hoff completed the pedestrian survey on May 21, 2020 and Senior Project Archaeologist Tracy Stropes and field archaeologist David Grabski conducted the testing program for the discovered sites October 7, 2020. Tracy Stropes, Jillian L.H. Conroy, and Brian Smith prepared the technical report. Jillian Conroy created the report graphics and Courtney Accardy conducted technical editing and report production. Qualifications of key personnel are provided in Appendix A.

2.1 Previous Work

The records search from the EIC at UCR indicates that 16 cultural resources have been recorded within one mile of the project, none of which are located within the project boundaries. The records search results also indicate that 16 cultural resource studies conducted have been conducted within a one-mile radius of the project, one of which included the current project parcel (Baldwin 1979). A discussion of the complete records search is provided in Section 4.1 of this report.

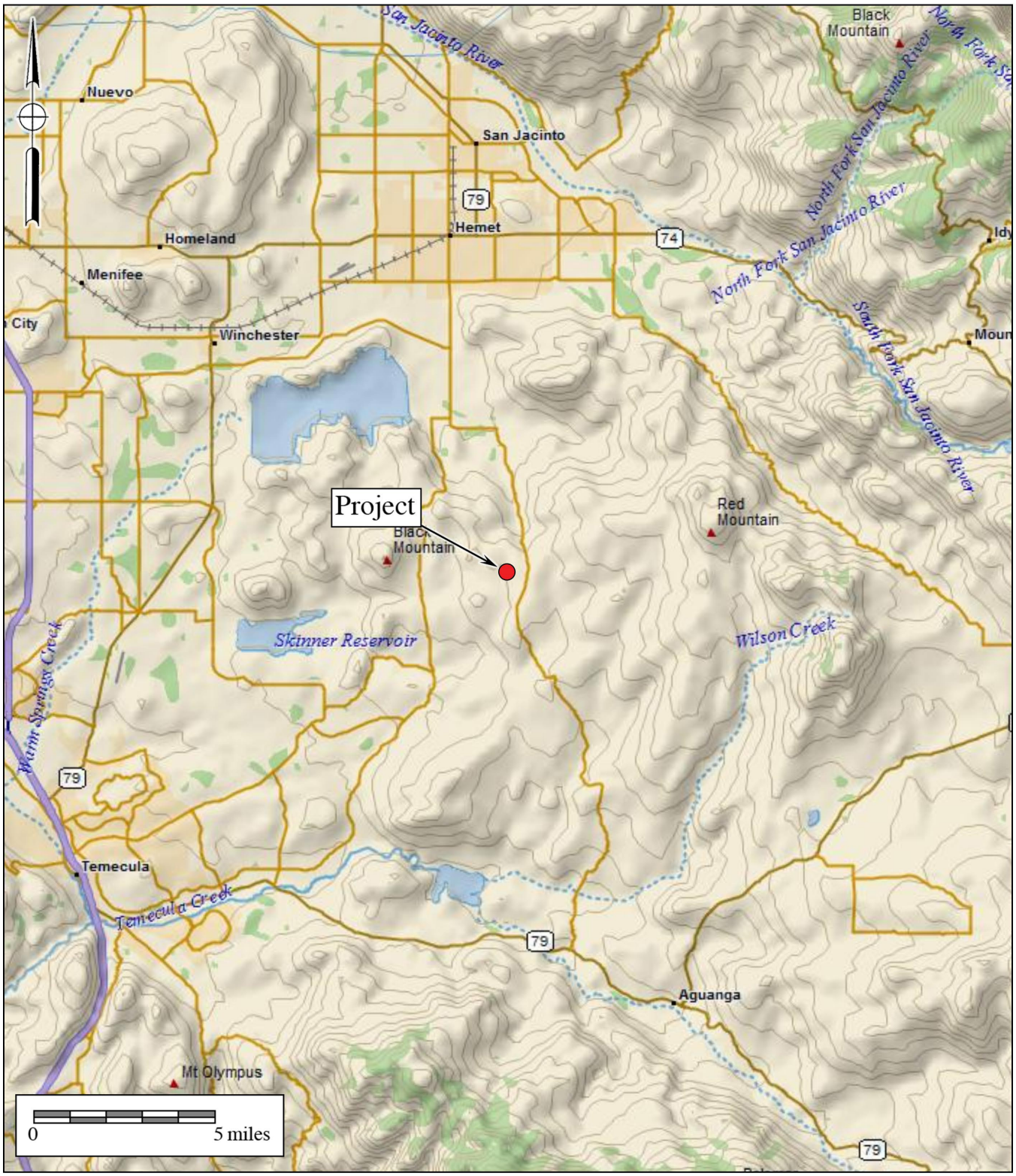


Figure 2.0–1

General Location Map

The Hansen Lot Split Project

DeLorme (1:250,000)

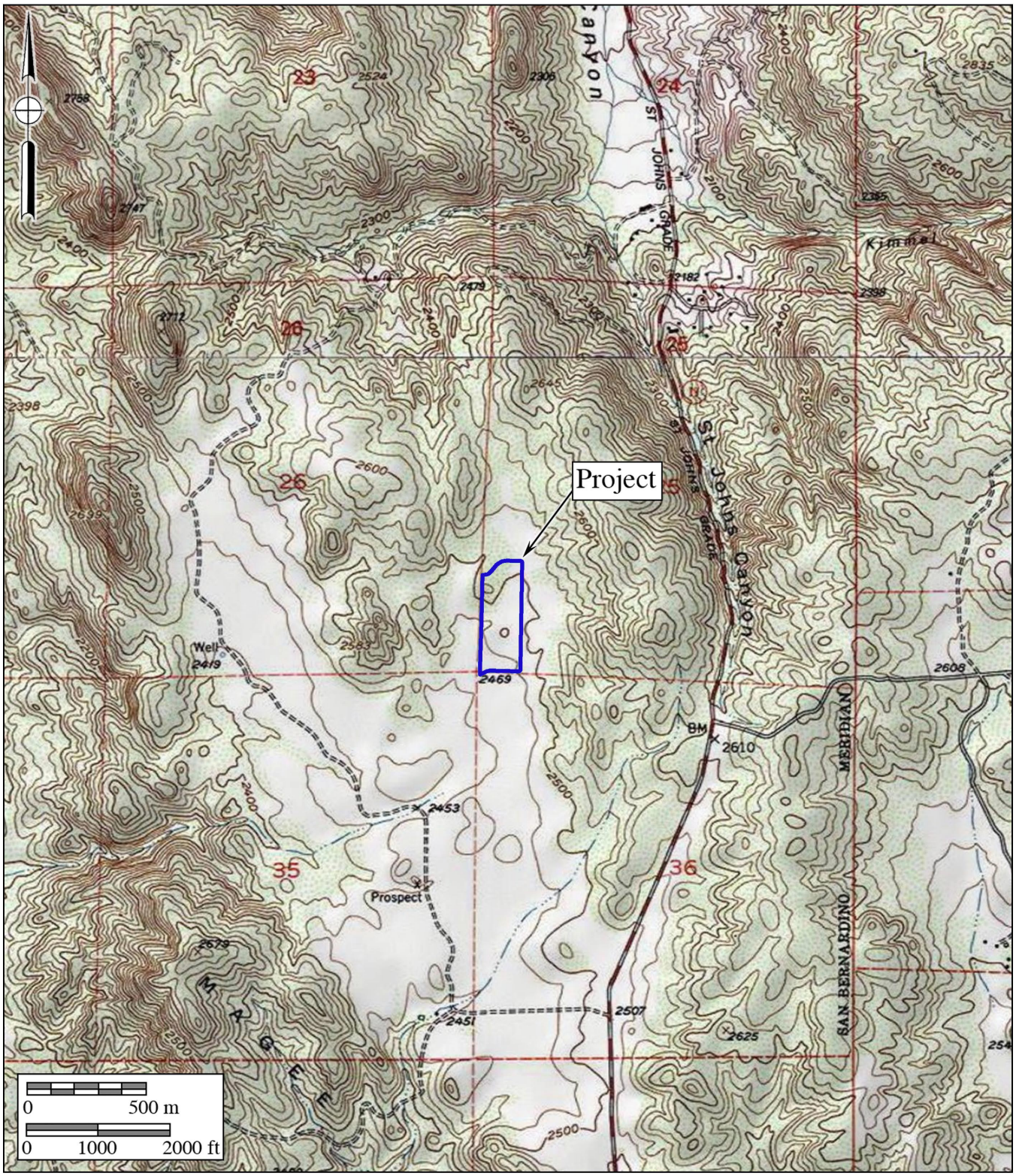


Figure 2.0–2

Project Location Map

The Hansen Lot Split Project

USGS *Sage* and *Hemet* Quadrangles (7.5-minute series)

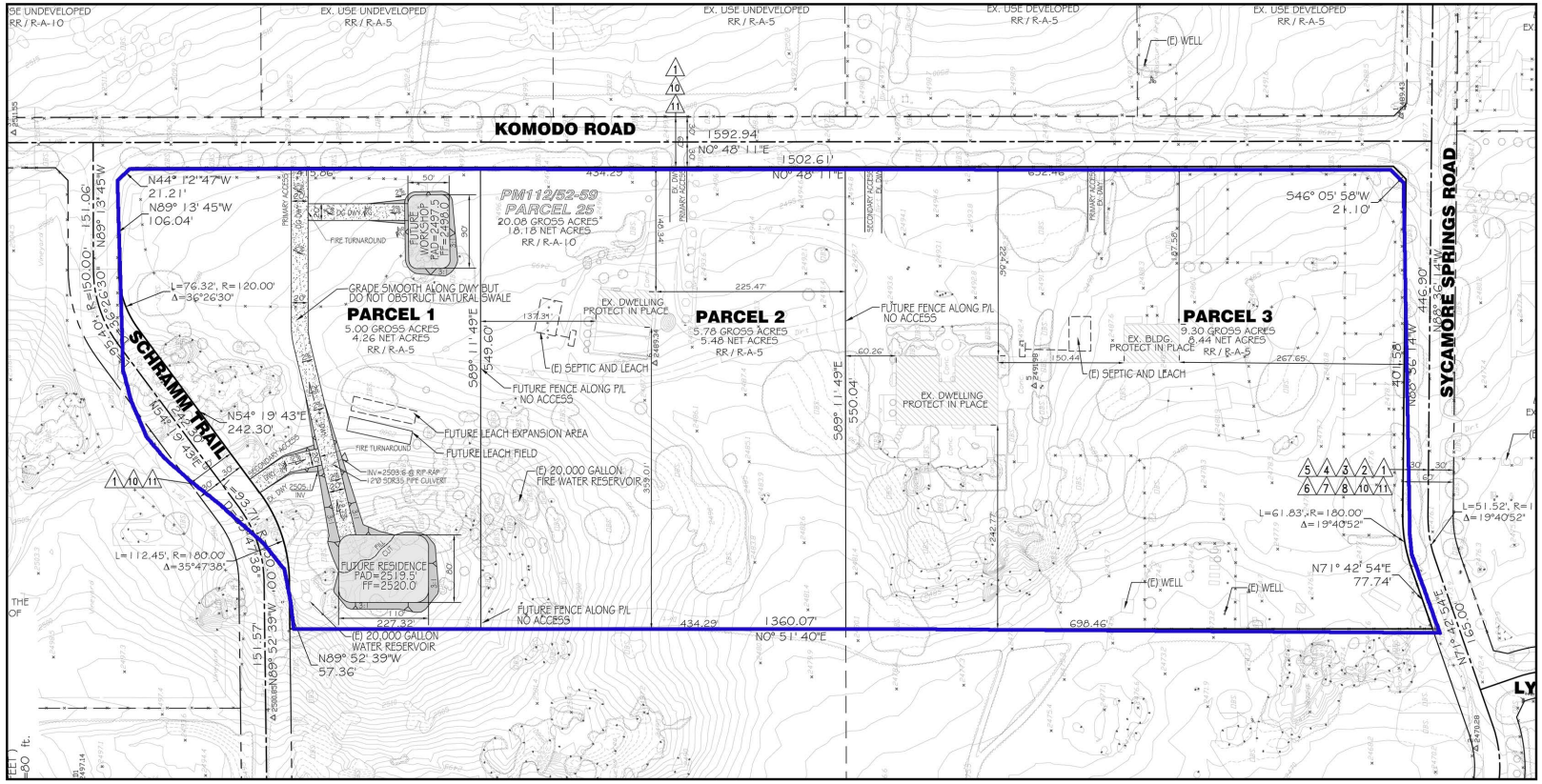


Figure 2.0–3

Project Development Map

The Hansen Lot Split Project

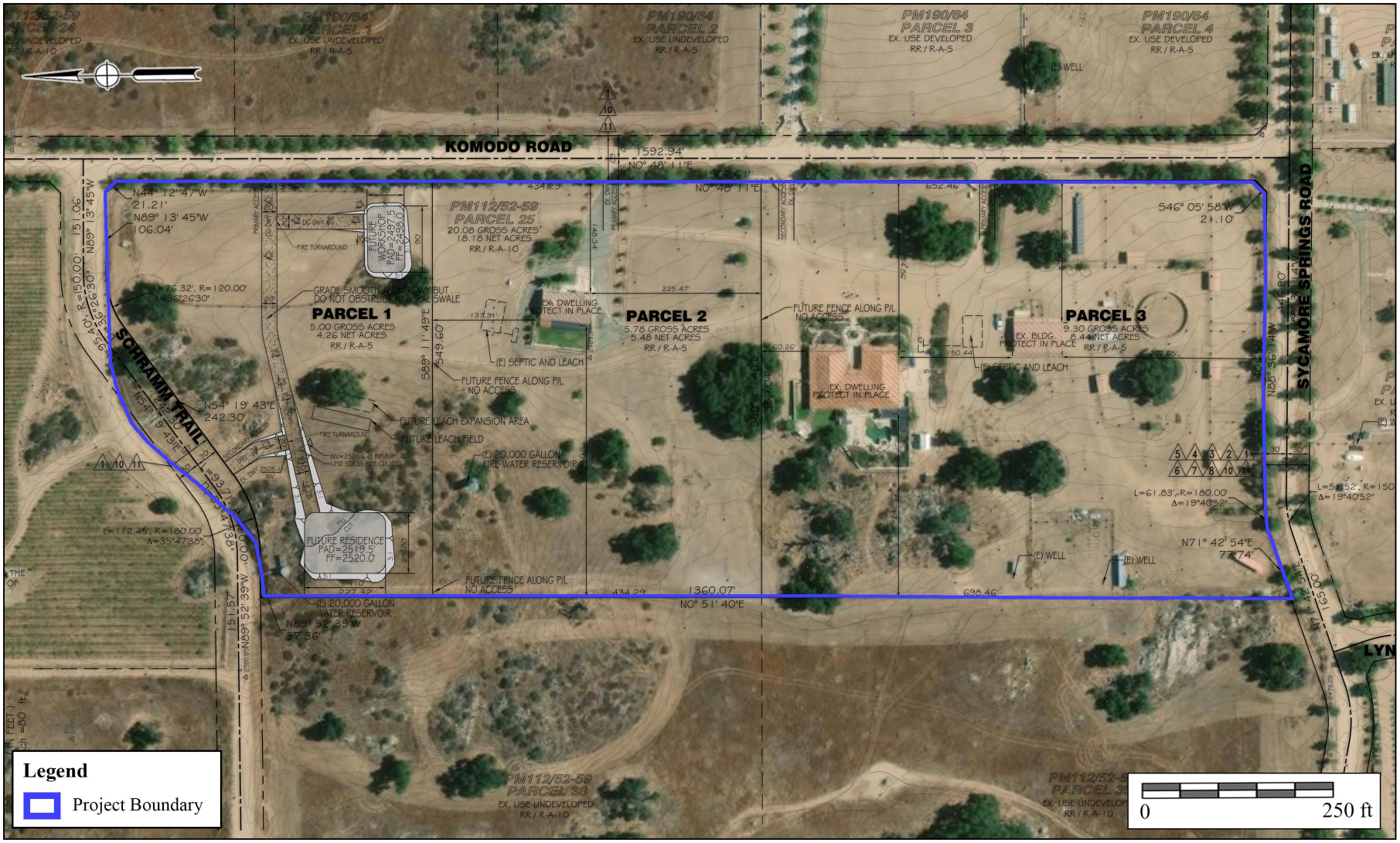


Figure 2.0–4

Project Development Map as Shown on Aerial Imagery

The Hansen Lot Split Project

2.2 Project Setting

The project is situated within the unincorporated community of Sage, south of the city of Hemet within western Riverside County. The subject property is situated east of Black Mountain in a small valley just west of St. Johns Canyon and northeast of the Magee Hills. Numerous natural sources of water, including unnamed seasonal drainages, surround the project, while Tucalota Creek is located approximately two miles to the south. The surrounding areas are defined by the margins of the Santa Ana Mountains to the west, the San Jacinto Valley to the north, Temecula Valley to the south, and the San Jacinto Mountains to the east/northeast.

The topography in the subject property is characterized primarily as a valley setting surrounded by low rolling foothills. The project contains a knoll in the northwestern corner which contains a concentration of low-lying bedrock outcroppings. Bedrock outcroppings are found elsewhere on the property but primarily occur within the northern and western portions of the project. The subject property elevation ranges between approximately 2,480 feet above mean sea level (AMSL) in the southwestern corner of the project, and 2,522 feet AMSL at the top of a small knoll located in the northwestern corner. The majority of the property has been cleared for the previous development and contains non-native weeds, grasses, and maintained residential landscaping. However, pockets of inland sage scrub and chaparral plant communities along with areas of riparian habitat, comprised of sage, scrub oak, sycamore trees, oak trees, and poison oak, are found throughout the property primarily near natural bedrock outcroppings.

Geologically, the project is mapped by Kennedy and Morton (2005) primarily as young alluvial channel deposit (Qya) underlain by Cretaceous age tonalite of the Coahuila Valley (Kcv). Tonalite of the Coahuila Valley is included in the Plutonic Rocks of the Peninsular Ranges Batholith. This geologic unit weathers to form large boulder outcrops (Kennedy and Morton 2005). The specific soils found on the property are mapped as Greenfield sandy loam, 2 to 8 percent slopes, eroded (GyC2), Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded (CkF2), and Cieneba rocky sandy loam, 8 to 15 percent slopes, eroded (CkD2) (Soilweb 2020).

During the prehistoric period, vegetation in the area of the project provided sufficient food resources to support prehistoric human occupants. Animals that inhabited the project 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 the prehistoric occupation offered a rich nutritional resource base. Fresh water could have been obtained from intermittent streams, seasonal drainages, and neighboring creeks. Historically, the property likely contained the same plant and animal species as are present today.

2.3 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 themselves 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 hopes of attaining 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 contract 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.

2.3.1 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).

2.3.2 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).

2.3.3 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 Yukaipa't Site (SBR-1000) and was combined with the adjacent Simpson Site. Excavations at Greven Knoll recovered manos, metates, projectile points, discoidal cogged stones, and a flexed inhumation with a possible cremation (Kowta 1969:39). It is believed that the Greven Knoll Site was occupied between 5,000 and 3,500 YBP. The Simpson Site contained mortars, pestles, side-notched points, and stone and shell beads. Based upon the data recovered at these sites, Kowta (1969:39) suggested that "coastal Milling Stone Complexes extended to and interdigitated with the desert Pinto Basin Complex in the vicinity of the Cajon Pass."

Phase I of the Greven Knoll Complex is generally dominated by the presence of manos and metates, core tools, hammerstones, large dart points, flexed inhumations, and occasional cremations. Mortars and pestles are absent from this early phase, and the subsistence economy emphasized hunting. Sutton and 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).

2.3.4 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.

2.3.5 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, 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 (?ístam). 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).

2.3.6 Ethnohistoric Period (1769 to Present)

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

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific

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

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

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

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

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama (Beattie and Beattie 1939). These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, who in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta (Chapman 1921). The

indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1961). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1976).

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

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately-owned ranchos, most often as slave labor. In light of the brutal ranchos, the degree to which Native Americans had become dependent upon the mission system is evident when, in 1838, a group of Native Americans from Mission San Luis Rey petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

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

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while

integrating them into their society. The Mexican and American ranchers did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976).

By 1846, tensions between the United States and Mexico had escalated to the point of war (Rolle 1969). In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure (Rolle 1969; Caughey 1970). By 1850, California had become a state and was eventually divided into 27 separate counties. While a much larger population was now settling in California, this was primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range (Rolle 1969; Caughey 1970). During this time, southern California grew at a much slower pace than northern California and was still dominated by the cattle industry 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 naval 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 March Air Reserve Base. During World War II Camp Haan and Camp Anza were constructed in the 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).

General History of the Surrounding Communities: San Jacinto Valley

The property is situated in a rural area of the county of Riverside approximately five miles south of Hemet and the San Jacinto Valley. In the early 1880s, Helen Hunt Jackson visited the San Jacinto Valley to conduct research for her upcoming book, *Ramona*. Although *Ramona* is a fictional dramatization of Native American mistreatment, the book sparked tourism within the San Jacinto Valley which would eventually lead to the creation of the California Historic Landmark (CHL) Ramona Bowl (CHL No. 1009), where the annual Ramona Pageant, a dramatization of the events depicted in the novel, was first performed in 1923 (Office of Historic Preservation n.d.).

Settlement in the area began with a 35,500-acre land grant given to José Antonio Estudillo in 1842, known as the Rancho San Jacinto Viejo Land Grant. Estudillo's children began developing the ranch in the 1880s by constructing two two-story brick mansions, one of which is still located at Main and Seventh Street in San Jacinto, and raised cattle on the land (Plate 2.3–1). In 1889, 15,000 acres of the Rancho San Jacinto Viejo Land Grant was sold to a group of Los Angeles investors known as the San Jacinto Land Association. Prior to the secession of the acreage, these investors developed a rival town in 1883 just two miles away from San Jacinto. The town, which called itself New San Jacinto, competed for dominance with Old San Jacinto (Plate 2.3−2). However, the battle was ultimately decided when the Santa Fe Railroad built a branch line that terminated in New San Jacinto. Old San Jacinto ultimately faded from existence by the twentieth century (City of San Jacinto 2020). "The San Jacinto Land Association originally wanted the region to be a Methodist temperance colony and had even gone as far as to state that deeds to land sold by the Association would contain a clause prohibiting the manufacture or sale of alcoholic beverages upon land sold by the company. Nevertheless, it appeared as though such clauses were never initiated into the deeds" (Wiley 2018).

Plate 2.3−1: The Estudillo Mansion, circa 1890. ***(Image courtesy of the City of San Jacinto archives)***

Plate 2.3−2: Old San Jacinto, circa 1890.
(Image courtesy of the City of San Jacinto archives)

The valley land was divided into large farm lots, usually made up of one quarter of the sectioned land. Portions of the San Jacinto Land Association land were irrigated with water obtained in the San Jacinto Mountains to the east. However, the region still lacked a sufficient water supply to support agriculture on a larger scale, until:

> Edward Mayberry, William Whitter, Albert H.H. Judson, Hancock M. Johnston, and Peter Potts formed the Lake Hemet Water Company and the Hemet Land Company after acquiring portions of Rancho San Jacinto. By 1895, the Lake Hemet Water Company had constructed a dam (Lake Hemet) that they planned to use to irrigate the holdings of the Hemet Land Company. The formation of the Lake Hemet Dam led to the incorporation of the city of Hemet in 1910. (Wiley 2018)

With the expanded irrigation capabilities, agriculture began to thrive in the San Jacinto Valley (City of San Jacinto 2020). Farming continued as an integral part of the San Jacinto Valley throughout the early twentieth century as settlements increased, giving rise to small family-owned agricultural businesses, and large-scale cattle ranching declined in popularity. Instead, "small-scale horticulture increased," with many different crops grown throughout the San Jacinto Valley due to its relatively high water table (10 to 15 feet below the surface) and warm climate (Wiley 2018; Pitman 1976). "Citrus, alfalfa, corn, potatoes, oat hay, and walnut orchards all prospered in the early twentieth century" (Wiley 2018).

As the population of the valley grew, the demand for dairy products increased, and dairy farming became more prevalent within the San Jacinto Valley. By 1922, dairy farmers in the San Jacinto Valley were producing more than 500,000 gallons of milk yearly (Law 1922). The wide-

open acreage and thorough irrigation allowed dairy cows in the San Jacinto Valley to free forage on ample fresh alfalfa, producing healthier cows and a better milk product, which could be shipped to Los Angeles daily on the railroad lines (City of San Jacinto 2020). Turkey ranching and lime kilns also added to the economy, along with tourism garnered by the draw of natural hot springs located within the north side of the valley. Tourism stimulated the growth of the area by ushering in the development of resorts and hotels. Notably, the Gilman and Soboba Hot Springs, which were developed in the late nineteenth century, drew increased tourism in the early twentieth century (City of San Jacinto 2020). These industries are still important to the economy of the San Jacinto Valley today.

2.4 Research Goals

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 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 Hansen Lot Split Project included an intensive pedestrian survey of the entire 20.08-acre property and a testing and evaluation program for the identified prehistoric resources (Temp-1, Temp-2, and Temp-3). Given the area involved and the narrow focus of the cultural resources study, the research design for this project was necessarily limited and general in nature. Since the main objective of the investigation was to identify the presence of, significance of, and potential impacts to cultural resources, the goal is not necessarily to answer wide-reaching theories regarding the development of early southern California, but to investigate the role and importance of the identified resources. Nevertheless, the assessment of the significance of a resource must take into consideration a variety of characteristics, as well as a resource's ability to address regional research topics and issues.

Although initial site evaluation 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 basic research effort employed is focused upon gathering sufficient data to determine the boundaries of identified resource, the depth, stratigraphy, and contents of any subsurface deposits, and the overall integrity of any sites. Testing and recordation of the contents of a site would provide the basis to complete an analysis of spatial relationships of artifacts, features, and natural resources. Ultimately, this information forms the foundation to determine the cultural affiliation of a site, the period of occupation, site function, and potential to address more focused research questions. The following research questions take into account the size and location of the project 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 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 these primary research goals in mind:

1) To identify cultural resources occurring within the project;
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.

3.0 METHODOLOGY

The archaeological program for the Hansen Lot Split Project consisted of an institutional records search, a SLF search, an intensive pedestrian survey of the 20.08-acre project, a testing and evaluation program for sites Temp-1, Temp-2, and Temp-3, and preparation of a technical study. This archaeological study conformed to County of Riverside Cultural Resource Guidelines (Draft). Statutory requirements of CEQA and subsequent legislation (Section 15064.5) were followed in evaluating the significance of cultural resources. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995).

3.1 Archaeological Records Search

The records search conducted by BFSA at 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 C and discussed in Section 4.1. The EIC search also included a standard review of the National Register of Historic Places (NRHP), the Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility (ADOE), and the OHP Built Environment Resources Directory (BERD). Land patent records, held by the Bureau of Land Management (BLM) and accessible through the BLM General Land Office (GLO) website, were also reviewed for pertinent project information. In addition, the BFSA research library was consulted for any relevant historical information.

3.2 Field Methodology

In accordance with County CEQA review requirements, an intensive pedestrian reconnaissance was conducted that employed a series of parallel survey transects spaced at approximately five-meter intervals to locate archaeological sites within the project. The archaeological survey of the project was completed on May 21, 2020. The entire project was covered by the survey process and photographs were taken to document project conditions during the survey (see Section 4.2). Previously unrecorded sites Temp-1, Temp-2, and Temp-3 were identified during the survey.

The cultural resource test strategy employed for the previously unrecorded sites consisted of detailed recordation of the bedrock milling features and collection of any surface artifacts, completion of subsurface investigations, and significance evaluations. The testing and evaluation program took place on October 7, 2020. No surface artifacts were identified at sites Temp-1, Temp-2, and Temp-3. Subsurface testing was completed at the sites to evaluate the site for CEQA significance. To refine the site area previously identified, all milling features and STP locations within the project boundaries were mapped using a Trimble Geo XT Global Positioning System (GPS) unit equipped with TerraSync software.

Documentation of milling features included mapping each feature with the GPS instrument

and recording the measurements of each bedrock feature and milling surface. The attributes of each surface were recorded on data forms developed specifically for the recordation of milling surfaces; the length, width, and depth of each surface was noted, in addition to the general overall characteristic of the surface (*i.e.,* slick, oval, mortar, etc.). The features were sketched and photographed as part of the recordation process. Subsurface examinations were conducted through the excavation of a series of STPs to determine if cultural deposits were present. Placement of the STPs was dependent upon locations of the milling features and areas of soil accumulation. The shovel test series consisted of 30x30-centimeter excavations, which proceeded in decimeter levels downward a minimum depth of 30 centimeters where sufficient soils remained, unless bedrock was encountered. All excavated soils were sifted through one-eighth-inch mesh hardware cloth.

3.3 Laboratory Methods

In keeping with generally accepted archaeological procedures and utilizing a classification system commonly employed in this region, any artifacts collected during an archaeological investigation are categorized as to artifact class, material class, and technological class. Comparative collections held within the BFSA laboratory are often helpful in identifying the unusual or highly fragmentary specimens. The cataloging process for specimens utilizes a classification system commonly employed in this region. After cataloging and identification, the collections are marked with the appropriate provenience and catalog information, then packaged for permanent curation. No radiocarbon dating or other specialized studies were conducted based upon the absence of materials recovered from the project. As stated previously, no artifacts were observed or collected during the study and, therefore, laboratory procedures were not required.

3.4 Report Preparation and Recordation

This report contains information regarding previous studies, statutory requirements for the project, a brief description of the setting, research methods employed, and the overall results of the survey and testing program. The report includes all appropriate illustrations and tabular information needed to make a complete and comprehensive presentation of these activities, including the methodologies employed and the personnel involved. A copy of the final technical report will be placed at the EIC at UCR. Any sites requiring updated information will be recorded on the appropriate DPR forms, which will be filed with the EIC.

3.5 Native American Consultation

The analysis of archaeological records did not indicate that Native American religious, ritual, or other special activities were reported in the project area. In addition, BFSA requested a review of the 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. The NAHC SLF search did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the search radius. Furthermore, the NAHC did not indicate the

presence of any recorded Tribal Cultural Resources (TCRs) within the project, nor did any of the correspondence from the tribes give any mention of TCRs within the subject property. In accordance with the recommendations of the NAHC, BFSA contacted all Native American consultants listed in the NAHC response letter. BFSA provided the letters to Native American representatives a minimum of two weeks prior to the initiation of the field survey. All correspondence is provided in Appendix D.

3.6 Applicable Regulations

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. The following sections detail the CEQA criteria that a resource must meet in order to be determined important.

3.6.1 California Environmental Quality Act

According to CEQA (Section 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 California Register of Historical Resources (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 a 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 a 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 a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

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

1) Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.
2) The significance of a historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in or eligibility for inclusion in the CRHR; or
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 a 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; or,
c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

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

1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is a historical resource, as defined in subsection (a).
2) If a lead agency determines that the archaeological site is a 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 upon those resources shall not be considered a significant effect upon the environment. It shall be sufficient that both the resource and the effect upon it are noted in the Initial Study or Environmental Impact Report, 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 Section 15064.5(e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

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

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

4.0 RESULTS

4.1 Records Search Results

An archaeological records search for the project and the surrounding area within a one-mile radius was conducted by BFSA at the EIC at UCR (Appendix C). The search results identified 16 cultural resources within one mile of the project, none of which are within the project boundaries (Table 4.1–1). The identified cultural resources include one historic and prehistoric artifact scatter, two prehistoric habitation sites, one hunting blind with a prehistoric artifact scatter, 11 bedrock milling feature sites, and one bedrock milling feature site with a prehistoric artifact scatter.

Table 4.1–1
Archaeological Sites Located Within One Mile of the Hansen Lot Split Project

Site	Description	Distance From the Project (m)
RIV-726	Prehistoric and historic artifact scatters	821.6
RIV-1565	Prehistoric habitation site	858.8
RIV-1566		1,295.9
RIV-2247	Hunting blind with a prehistoric artifact scatter	1,577.0
RIV-2290	Bedrock milling features	1,084.2
RIV-2291		1,537.5
RIV-2292		1,515.7
RIV-7803		1,474.4
RIV-9196		962.0
RIV-9197		1,004.8
RIV-9198		1,070.7
RIV-9199		1,320.3
RIV-9200		1,241.2
RIV-9201		1,187.6
RIV-9493		1,536.0
RIV-9464	Bedrock milling features with a prehistoric artifact scatter	220.0

The records search results also indicate that 16 archaeological studies have been conducted within a one-mile radius of the project, one of which included the current study area (Baldwin 1979) (Table 4.1–2). The archaeological assessment was conducted by Field Survey Consultants and included the survey of the 700-acre Tentative Tract 13113 for a proposed 33 lot subdivision. No cultural resources were identified within the current project as a result of this study. The complete records search results can be found within Appendix C.

Table 4.1–2

Previous Archaeological Studies Conducted Within One Mile of the Hansen Lot Split Project

Baldwin, James

1979 Environmental Impact Evaluation: An Archaeological Assessment of Tentative Tract 13113, Sage Area of Riverside County, California. Field Survey Consultants. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Brewer, Christine

1991 An Archaeological Assessment of Parcel Map No. 25898, County of Riverside, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Cotterman, Cary D. and Evelyn N. Chandler

2007 Cultural Resources Inventory of 8 Proposed Pole Replacements In and Near Unincorporated Communities of Nuevo and Sage, In the City of Menifee and Near the City of Perris, Riverside County, California (DWO 6077-4800; 1-4886, 2-4801, 2-4802, 2-4803, 2-480, 2-4813, 2-4814, 2-4815). ECORP Consulting. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Dalton, John

1998 Archaeological Reconnaissance Report: RCHCA Land Exchange/Sale Archaeological Inventory. BLM. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Drover, Christopher E.

1988 An Archaeological Assessment of PM 23033, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Heidelberg, Kurt and Laura Hoffman

2012 Archaeological Survey Report for Southern California Edison Company's Replacement of Three Deteriorated Power Pole Structures (WO 6077-4800, 3-4831/TD566591) on the Corsair 12 kV Circuit in Riverside County, California. SWCA Environmental Consultants. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Jackson, Adrianna

2000 Records Search Results for Sprint PCS Facility RV33XC267C (Pope Property Site), Sage Road/ Red Mountain Road, Hemet, Riverside County, CA. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Jones, Wendy and Evelyn Chandler

2011 Cultural Resources Inventory of a Proposed Pole Replacement South of the City of Hemet, Riverside County, California (TD548524). ECORP Consulting, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Keller, Jean A.

2006 A Phase I Cultural Resources Assessment of Tentative Parcel Map 33365, +/- 20.09 Acres of Land near Sage, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

2013 A Phase I Cultural Resources Assessment of Tentative Parcel Map 34253 APN 470-210-012 20.01 Acres of Land Near Hemet Riverside County, California Section 36, Township 6 South, Range 1 West, SBM USGS Sage, California Quadrangle, 7.5' Series. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Peak & Associates, Inc.

1996 Cultural Resource Assessment of Two Contiguous Five Acre Parcels Under Consideration by the California Department of Forestry for the Development of New Facilities Near Sage, Riverside County, California. Peak & Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Rosenberg, Seth A.

2005 A Cultural Resources Study for the Sandon Lot Split Project, County of Riverside, APN 470-220-001. Brian F. Smith and Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Schmidt, James J.

2012 Archaeological Survey Report for Southern California Edison Company's Replacement of Five Deteriorated Power Pole Structures on the Corsair 12 kV Distribution Circuit (WO#6077-4800; 3-4838 77-TD566623 and 3-4840 77-TD566629), Near Hemet, Riverside County, CA. Compass Rose Archaeological, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Schroth, Adella B.

1987 An Archaeological Assessment of TP 22280, Located in the Sage Area of Southern Riverside County, California. Archaeological Research Unit, U.C. Riverside. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Tang, Bai, Deirdre Encarnacion, and Daniel Ballester

2010 Phase I Archaeological Assessment: Tentative Parcel Map No. 33581, Assessor's Parcel Nos. 470-180-051 and -052, Sage Area, Riverside County, California. CRM Tech. Unpublished report on file at the Eastern Information Center at the University of California at Riverside,

Riverside, California.

White, Robert S.
1992 An Archaeological Assessment of a 20.09-acre Parcel as Shown on PM 27181. Archaeological Associates, LTD. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

The following historic sources were also reviewed:

- The NRHP Index
- The OHP, ADOE
- The OHP, BERD
- 1901 *San Jacinto, California* 30-minute quadrangle map
- 1942 *Hemet, California* 15-minute USGS quadrangle map
- 1954 *Sage, California* 7.5-minute USGS quadrangle map
- 1967 to 2020 aerial photographs

None of these sources identified any resources within the boundaries of the project.

The analysis of archaeological records did not indicate Native American religious, ritual, or other special activities within the subject property. In addition, BFSA requested a review of the 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. The NAHC SLF search did not indicate the presence of any sacred sites or locations of religious or ceremonial importance within the search radius. Furthermore, the NAHC did not indicate the presence of any recorded TCRs within the project, nor did any of the correspondence from the tribes give any mention of TCRs within the subject property. In accordance with the recommendations of the NAHC, BFSA contacted all Native American consultants listed in the NAHC response letter. This request is not part of any formal Assembly Bill (AB) 52 Native American consultation. BFSA provided the letters to Native American representatives a minimum of two weeks prior to the initiation of the field survey. As of the date of this report, BFSA has not received any responses. All correspondence is provided in Appendix D.

The records search and literature review suggest that the general vicinity of the project is sensitive for cultural resources. Prehistoric resources situated near permanent water sources and bedrock outcroppings are the most common resource type surrounding the project. Therefore, as the project contains seasonal drainages and bedrock outcrops, there is a potential for similar prehistoric resources to be located within the subject property.

4.2 Results of the Field Survey

The archaeological survey of the project was conducted on May 21, 2020. Principal Investigator Brian F. Smith and Project Archaeologist Andrew J. Garrison directed the pedestrian survey of the project with the assistance of Senior Field Archaeologist Clarence Hoff. The archaeological survey of the property was an intensive reconnaissance consisting of a series of parallel survey transects spaced at approximately five-meter intervals. The majority of the property has been cleared of vegetation for the previous development and contains non-native weeds and grasses, along with maintained residential landscaping. However, pockets of inland sage scrub and chaparral plant communities along with areas of riparian habitat, comprised of sage, scrub oak, sycamore trees, oak trees, and poison oak are also found throughout the property primarily near the natural bedrock outcroppings (Plate 4.2–1 and Plate 4.2–2).

During the survey, bedrock outcroppings were identified throughout the project and checked for signs of prehistoric use. As a result, three prehistoric bedrock milling sites were identified within the northern portion of the property (Plates 4.2–3 to 4.2–5) and recorded as Temp-1, Temp-2, and Temp-3 with the EIC at UCR (Appendix B) (Figure 4.2–1). The following sections detail the results of the archaeological testing program conducted at sites Temp-1, Temp-2, and Temp-3, as a result of the field survey.

Plate 4.2–1: Overview of the current development within the project, facing northwest.

Plate 4.2–2: Overview of the northern portion of the project, facing southeast.

Plate 4.2–3: Overview of Site Temp-1, facing northeast. Note the presence of Schramm Trail (left) outside of the project boundaries.

Plate 4.2–4: Overview of Site Temp-2, facing east.

Plate 4.2–5: Overview of Site Temp-3, facing east.

Figure 4.2–1
Cultural Resource Location Map

(Deleted for Public Review; Bound Separately)

4.3 Results of Significance Testing – Site Temp-1

4.3.1 Site Description

Site Temp-1 was identified during the Phase I archaeological survey as a prehistoric bedrock milling site located just south of Schramm Trail near the northern boundary of the project. The approximately 374.0 square-meter site consists of two bedrock milling features (BMFs A and B) that each contain a single milling slick. The site is relatively undisturbed. The exposed boulders throughout the site and within the surrounding area have undergone various degrees of deterioration and exfoliation, which may affect the observable pattern of prehistoric use. Overviews of BMF A and BMF B are shown in Plate 4.3–1 and Plate 4.3–2.

Plate 4.3–1: Overview of BMF A at Site Temp-1, facing northeast.

Plate 4.3–2: Overview of BMF B at Site Temp-1, facing northeast.

4.3.2 Description of Field Investigations

The field investigations at Site Temp-1 were conducted on October 7, 2020 using the standard methodologies described in Section 3.0. The testing program included recording the bedrock milling features and excavating six shovel tests. Based upon the bedrock milling feature locations and the topography of the surrounding area, Temp-1 measures approximately 127.9 feet (39.0 meters) long by 39.7 feet (12.2 meters) wide, covering an area of approximately 4,230.6 square feet (374.0 square meters). The configuration of the site is shown on Figure 4.3–1.

Figure 4.3–1
Excavation Location Map
Site Temp-1

(Deleted for Public Review; Bound Separately)

Surface Recordation

The entire surface of the site was inspected for artifacts and milling features. Two bedrock milling features (BMFs A and B) were identified, each containing one slick. No artifacts were observed in the area surrounding the milling features. The slicks measure 25.0 and 20.0 centimeters long, both are 15.0 centimeters wide, and neither has any measurable depth (Table 4.3–1). The individual milling surfaces on the features are shown in Plates 4.3–3 and 4.3–4 and Figures 4.3–2 and 4.3–3.

Table 4.3–1
Bedrock Milling Feature Data
Site Temp-1

Feature	Surface No.	Milling Type	Dimensions (cm)		
			Length	Width	Depth
A	1	Slick	25.0	15.0	-
B	1		20.0		

Plate 4.3–3: Close up of the milling slick on BMF A at Site Temp-1, facing northeast.

Figure 4.3–2

Bedrock Milling Feature A

Site Temp-1

The Hansen Lot Split Project

Plate 4.3–4: Close up of the milling slick on BMF B at Site Temp-1, facing northwest.

Subsurface Excavation

The potential for subsurface archaeological deposits at Site Temp-1 was investigated by excavating a total of six STPs, three around each BMF (see Figure 4.3–1). All of the shovel tests were excavated in decimeter levels to a minimum of 30 centimeters or until bedrock was encountered. At the direction of the Riverside County Archaeologist, the shovel tests were placed some distance away from the milling features to protect any culturally sensitive deposits. Generally, the soil from the shovel tests can be characterized as medium brown (10YR 5/3), silty loam. No artifacts were recovered from the STPs excavated at Site Temp-1 (Table 4.3–2).

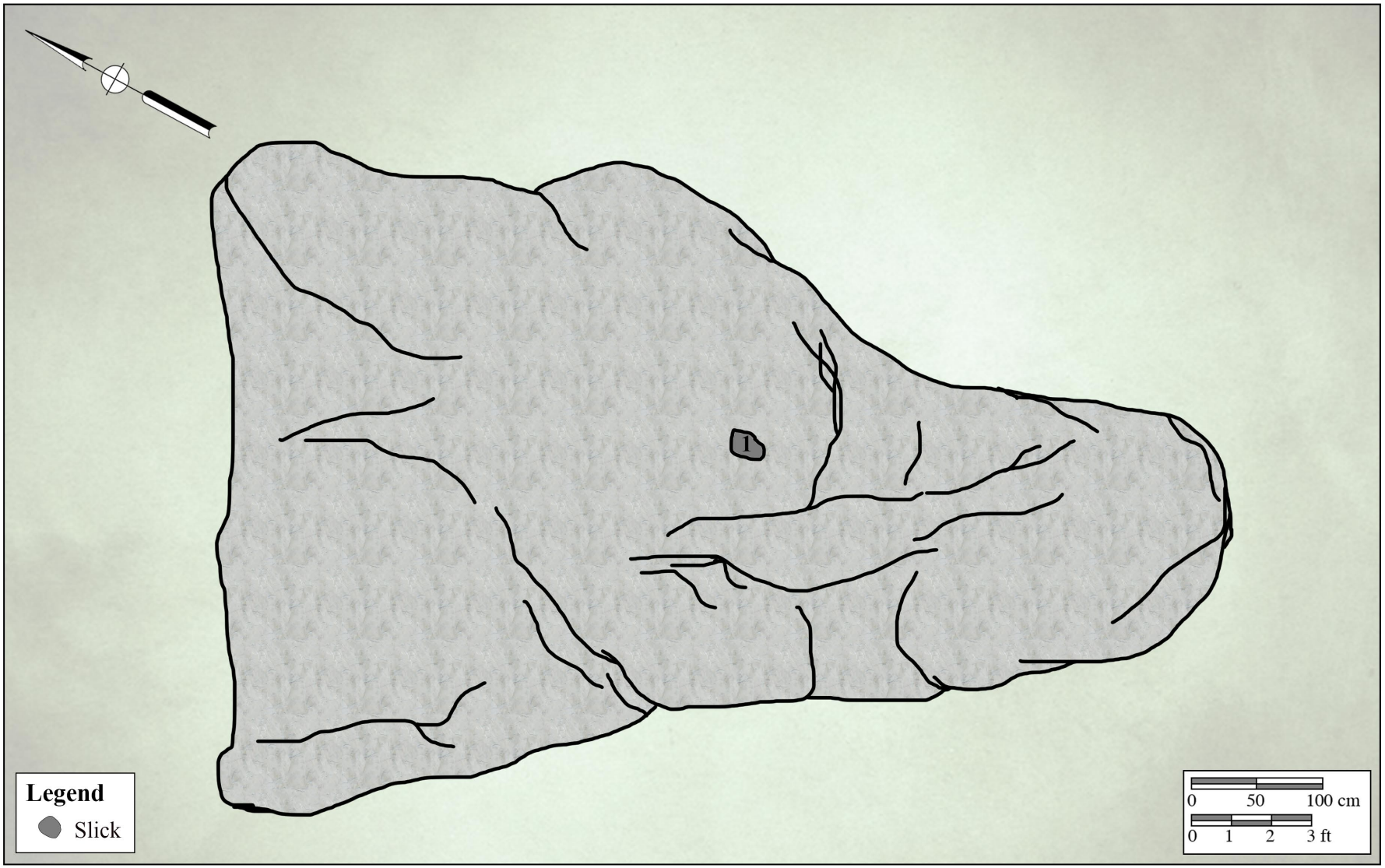


Figure 4.3–3

Bedrock Milling Feature B

Site Temp-1

The Hansen Lot Split Project

Table 4.3–2
Shovel Test Excavation Data
Site Temp-1

Shovel Test	Depth (cm)	Soils Encountered	Object Type	Quantity	Cat. No.
1	0-10	Medium brown (10YR 5/3), silty loam	No Recovery		
	10-20				
	20-30				
	30-40				
2	0-10				
	10-20				
	20-30				
	30-35				
3	0-10				
	10-20				
	20-30				
	30-40				
4	0-10				
	10-20				
	20-30				
	30-40				
5	0-10				
	10-20				
	20-30				
	30-40				
6	0-10				
	10-20				
	20-30				
	30-35				

4.3.3 Summary

The investigation of Site Temp-1 revealed that the site was a minimally used bedrock milling site. The identified features indicate that site activities primarily focused upon floral and/or faunal food processing. No surface artifacts were identified and shovel test investigations did not identify any subsurface deposits. Although bedrock milling is typically associated with the Late Prehistoric occupation of the area, since no diagnostic artifacts were recovered, no definite cultural affiliation could be assigned to the resource. The bedrock milling features have been drawn, photographed, and measured. The site exhibits no artifacts, artifact assemblages, or subsurface features, and the documentation of these surfaces has exhausted its research potential. A significance assessment of the site according to the criteria listed in CEQA,

Section 15064.5, clarifies that the site does not qualify as a significant archaeological resource under any of the stated criteria and is ineligible for listing on the CRHR. The preliminary map of the archaeological site has been revised based upon new information from the testing phase of work. No further archaeological investigations are recommended for Site Temp-1.

4.4 Results of Significance Testing – Site Temp-2

4.4.1 Site Description

Site Temp-2 was identified during the Phase I archaeological survey as a prehistoric bedrock milling site located in the northwestern portion of the project. The approximately 5.1 square-meter site consists of one bedrock milling feature (BMF A) that contains a single milling slick. The site is relatively undisturbed. The exposed boulders throughout the site and within the surrounding area have undergone various degrees of deterioration and exfoliation, which may affect the observable pattern of prehistoric use. An overview of BMF A is shown in Plate 4.4–1.

Plate 4.4–1: Overview of BMF A at Site Temp-2, facing northeast.

4.4.2 Description of Field Investigations

The field investigations at Temp-2 were conducted on October 7, 2020 using the standard methodologies described in Section 3.0. The testing program included recording the bedrock milling feature and excavating three shovel tests. Based upon the bedrock milling feature location

and the topography of the surrounding area, Temp-2 measures approximately 10.8 feet (3.3 meters) long by 7.1 feet (2.2 meters) wide, covering an area of approximately 54.6 square feet (5.1 square meters). The configuration of the site is shown on Figure 4.4–1.

Surface Recordation

The entire surface of the site was inspected for artifacts and milling features. One bedrock milling feature (BMF A) was identified, containing one slick. No artifacts were observed in the area surrounding the milling features. The slick measures 30.0 centimeters long and 20.0 centimeters wide, and does not have any measurable depth (Table 4.4–1). The individual milling surface on the feature is shown in Plate 4.4–2 and Figure 4.4–2.

Table 4.4–1
Bedrock Milling Feature Data
Site Temp-2

Feature	Surface No.	Milling Type	Dimensions (cm)		
			Length	Width	Depth
A	1	Slick	30.0	20.0	-

Plate 4.4–2: Close up of the milling slick on BMF A at Site Temp-2, facing north.

Figure 4.4–1
Excavation Location Map
Site Temp-2

(Deleted for Public Review; Bound Separately)

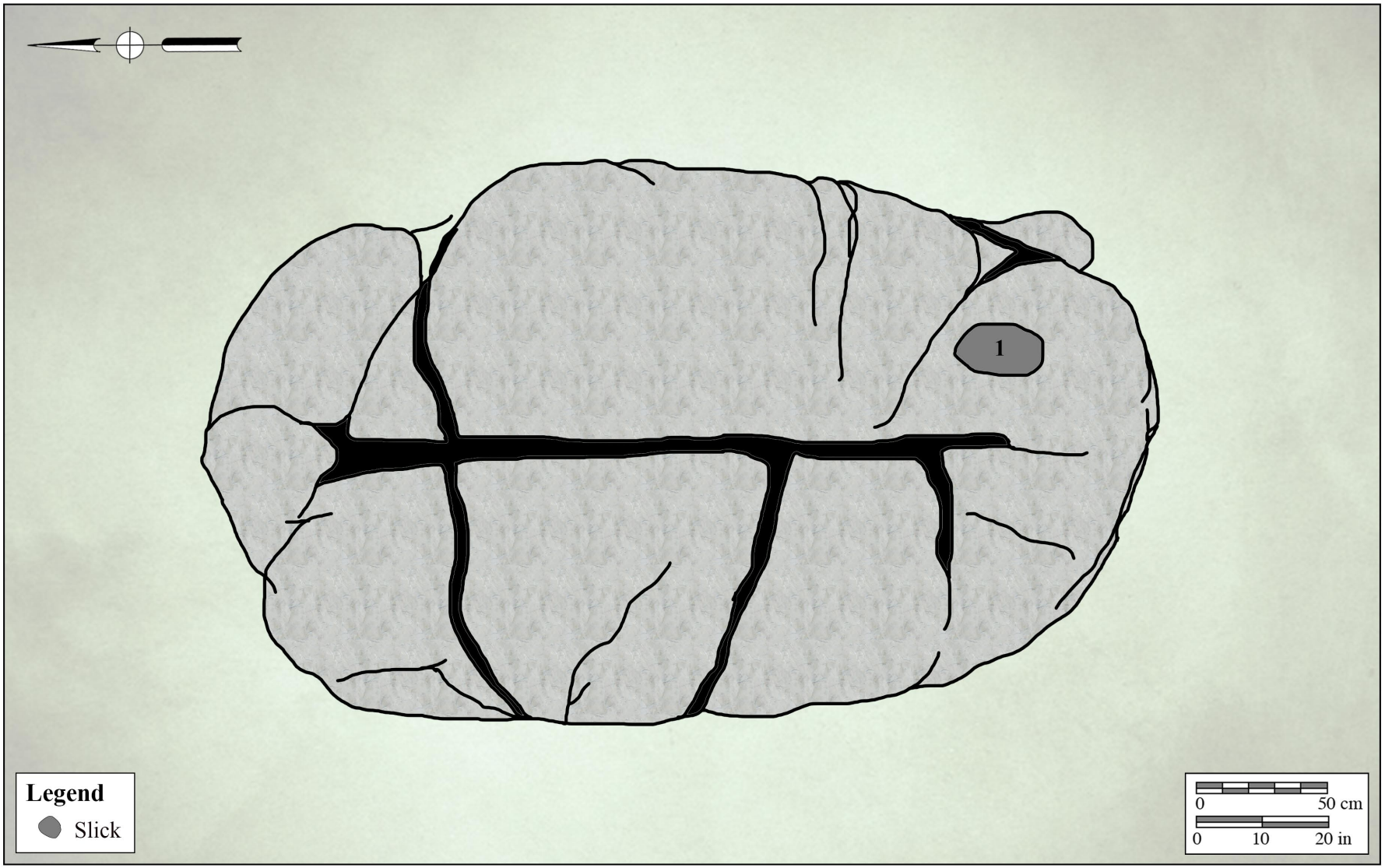


Figure 4.4–2

Bedrock Milling Feature A

Site Temp-2

The Hansen Lot Split Project

Subsurface Excavation

The potential for subsurface archaeological deposits at Site Temp-2 was investigated by excavating a total of three STPs around BMF A (see Figure 4.4–1). All of the shovel tests were excavated in decimeter levels to a minimum of 30 centimeters or until bedrock was encountered. Generally, the soil from the shovel tests can be characterized as medium brown (10YR 5/3), silty loam. No artifacts were recovered from the STPs excavated at Site Temp-2 (Table 4.4–2).

Table 4.4–2
Shovel Test Excavation Data
Site Temp-2

Shovel Test	Depth (cm)	Soils Encountered	Object Type	Quantity	Cat. No.
1	0-10	Medium brown (10YR 5/3), silty loam	No Recovery		
	10-20				
	20-30				
	30-40				
2	0-10				
	10-20				
	20-30				
	30-35				
3	0-10				
	10-20				
	20-30				
	30-40				

4.4.3 Summary

The investigation of Site Temp-2 revealed that the site was a minimally used bedrock milling site. The identified features indicate that site activities primarily focused upon floral and/or faunal food processing. No surface artifacts were identified and shovel test investigations did not identify any subsurface deposits. Although bedrock milling is typically associated with the Late Prehistoric occupation of the area, since no diagnostic artifacts were recovered, no definite cultural affiliation could be assigned to the resource. The bedrock milling feature has been drawn, photographed, and measured. The site exhibits no significant artifacts, artifact assemblages, or subsurface features, and the documentation of the milling surface has exhausted its research potential. A significance assessment of the site according to the criteria listed in CEQA, Section 15064.5, clarifies that the site does not qualify as a significant archaeological resource under any of the stated criteria. No further archaeological investigations are recommended for Site Temp-2.

4.5 Results of Significance Testing – Site Temp-3

4.5.1 Site Description

Site Temp-3 was identified during the Phase I archaeological survey as a prehistoric bedrock milling site located in the northeastern portion of the project. The approximately 16.8 square-meter site consists of one bedrock milling feature (BMF A) that contains a single milling slick. The site is relatively undisturbed. The exposed boulders throughout the site and within the surrounding area have undergone various degrees of deterioration and exfoliation, which may affect the observable pattern of prehistoric use. An overview of BMF A is shown in Plate 4.5–1.

Plate 4.5–1: Overview of BMF A at Site Temp-3, facing northwest.

4.5.2 Description of Field Investigations

The field investigations at Temp-3 were conducted on October 7, 2020 using the standard methodologies described in Section 3.0. The testing program included recording the bedrock milling feature and excavating three shovel tests. Based upon the bedrock milling feature location and the topography of the surrounding area, Temp-3 measures approximately 17.9 feet (5.5 meters) long by 13.0 feet (4.0 meters) wide, covering an area of approximately 180.8 square feet (16.8 square meters). The configuration of the site is shown on Figure 4.5–1.

Figure 4.5–1
Excavation Location Map
Site Temp-3

(Deleted for Public Review; Bound Separately)

Surface Recordation

The entire surface of the site was inspected for artifacts and milling features. One bedrock milling feature (BMF A) was identified, containing one slick. No artifacts were observed in the area surrounding the milling feature. The slick measures 30.0 centimeters long and 25.0 centimeters wide, and does not have any measurable depth (Table 4.5–1). The individual milling surface on the feature is shown in Plate 4.5–2 and Figure 4.5–2.

Table 4.5–1
Bedrock Milling Feature Data
Site Temp-3

Feature	Surface No.	Milling Type	Dimensions (cm)		
			Length	Width	Depth
A	1	Slick	30.0	25.0	-

Plate 4.5–2: Close up of the milling slick on BMF A at Site Temp-3, facing northwest.

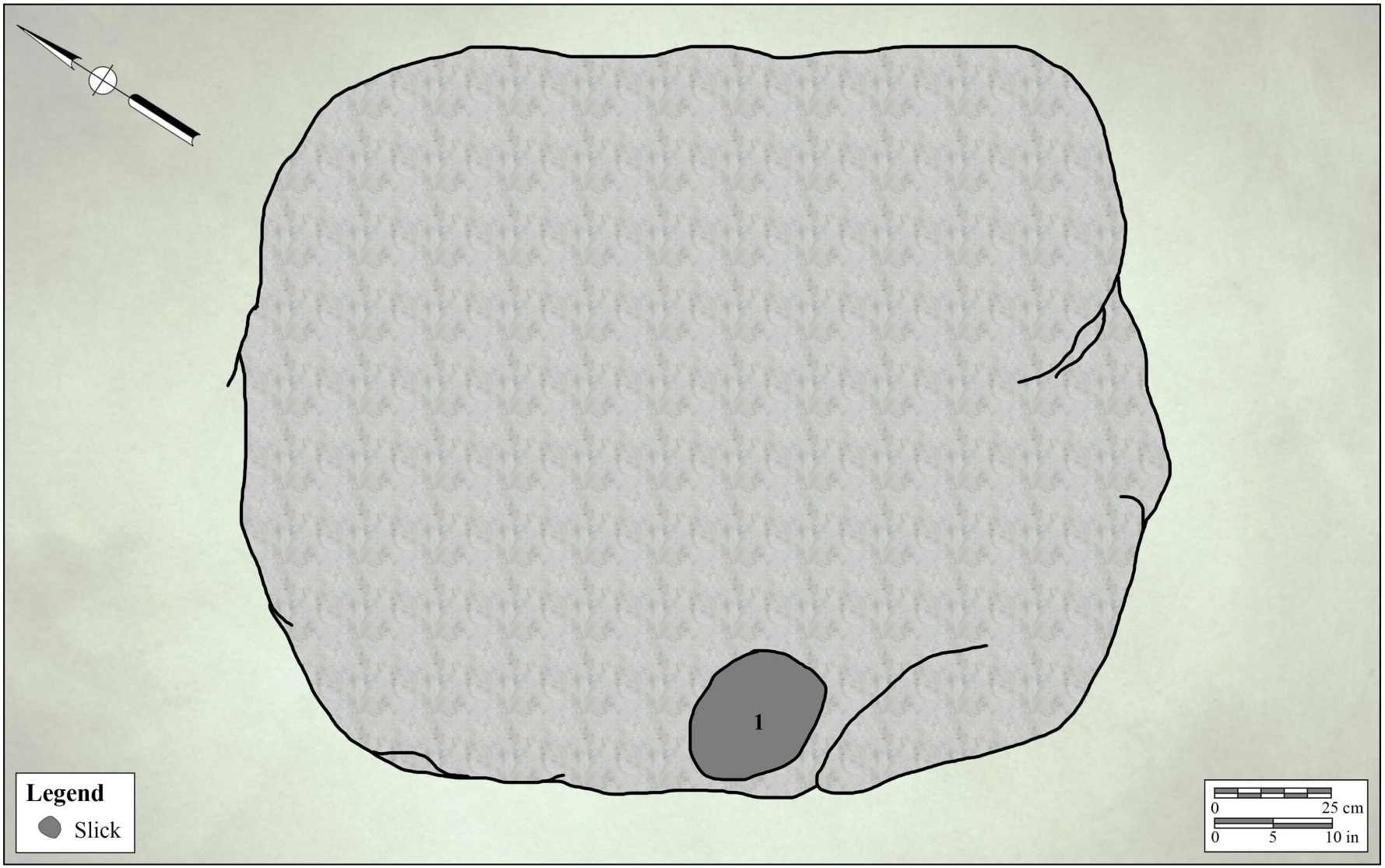


Figure 4.5–2

Bedrock Milling Feature A

Site Temp-3

The Hansen Lot Split Project

Subsurface Excavation

The potential for subsurface archaeological deposits at Site Temp-3 was investigated by excavating a total of three STPs around BMF A (see Figure 4.5–1). All of the shovel tests were excavated in decimeter levels to a minimum of 30 centimeters or until bedrock was encountered. Generally, the soil from the shovel tests can be characterized as medium brown (10YR 5/3), silty loam. No artifacts were recovered from the STPs excavated at Site Temp-3 (Table 4.5–2).

Table 4.5–2
Shovel Test Excavation Data
Site Temp-3

Shovel Test	Depth (cm)	Soils Encountered	Object Type	Quantity	Cat. No.
1	0-10	Medium brown (10YR 5/3), silty loam	No Recovery		
	10-20				
	20-30				
2	0-10				
	10-20				
	20-30				
3	0-10				
	10-20				
	20-25				

4.5.3 Summary

The investigation of Site Temp-3 revealed that the site was a minimally used bedrock milling site. The identified features indicate that site activities primarily focused upon floral and/or faunal food processing. No surface artifacts were identified and shovel test investigations did not identify any subsurface deposits. Although bedrock milling is typically associated with the Late Prehistoric occupation of the area, since no diagnostic artifacts were recovered, no definite cultural affiliation could be assigned to the resource. The bedrock milling feature has been drawn, photographed, and measured. The site exhibits no significant artifacts, artifact assemblages, or subsurface features, and the documentation of the milling surface has exhausted its research potential. A significance assessment of the site according to the criteria listed in CEQA, Section 15064.5, clarifies that the site does not qualify as a significant archaeological resource under any of the stated criteria. No further archaeological investigations are recommended for Site Temp-3.

5.0 RECOMMENDATIONS

The cultural resources study for the Hansen Lot Split Project resulted in the identification of three previously unrecorded cultural resources, Temp-1, Temp-2, and Temp-3. In order to accurately evaluate the archaeological sites and potential impacts of the project development upon the resource, an archaeological testing program was required to augment the level of work completed as part of the Phase I survey. All information from the testing program will be used to submit site record forms to the EIC. The COVID-19 pandemic will delay the site registration process. The archaeological resources were evaluated as not significant. Because the sites have been evaluated as not significant, site-specific mitigation measures will not be required. Furthermore, sites Temp-2 and Temp-3 are situated within areas of the project not slated for development and will not be directly impacted, and the proposed rerouting of Schramm Trail shown on the site plan is likely not to be constructed (Figure 5.0–1); therefore, Site Temp-1 will also not be directly impacted. However, due to the presence of the bedrock milling features documenting prehistoric use of this property and the density of bedrock milling features sites within one mile of the project, the potential exists that other unidentified cultural resources may exist on the property that may be exposed during grading. Therefore, it is recommended that all earth disturbances associated with the development of the project be monitored by an archaeologist and a Native American representative.

5.1 Mitigation Monitoring

Monitoring during ground-disturbing activities, such as grading or trenching, by a qualified archaeologist and Native American representative is recommended to ensure that if buried features (*i.e.,* human remains, hearths, or cultural deposits) are present, they will be handled in a timely and proper manner. The scope of the monitoring program is provided below.

Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program to mitigate potential impacts to undiscovered buried cultural resources within the Hansen Lot Split Project shall be implemented to the satisfaction of the lead agency. This program shall include, but not be limited to, the following actions:

1) Prior to issuance of a grading permit, the applicant shall provide written verification in the form of a letter from the project archaeologist to the lead agency stating that a certified archaeologist has been retained to implement the monitoring program.
2) The project applicant shall provide Native American monitoring during grading. The Native American monitor shall work in concert with the archaeological monitor to observe ground disturbances and search for cultural materials.

Figure 5.0–1
Cultural Resources Shown on Project Development Map

(Deleted for Public Review; Bound Separately)

3) The certified archaeologist shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program.
4) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and tribal representative shall be on-site, as determined by the consulting archaeologist, to perform periodic inspections of the excavations. The frequency of inspections will depend upon the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The consulting archaeologist shall have the authority to modify the monitoring program if the potential for cultural resources appears to be less than anticipated.
5) Isolates and clearly non-significant deposits will be minimally documented in the field so the monitored grading can proceed.
6) In the event that previously unidentified cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. The archaeologist shall contact the lead agency at the time of discovery. The archaeologist, in consultation with the lead agency, shall determine the significance of the discovered resources. The lead agency must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the lead agency before being carried out using professional archaeological methods. If any human bones are discovered, the county coroner and lead agency shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains.
7) Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The project archaeologist shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
8) All cultural material collected during the grading monitoring program shall be processed and curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility, to be accompanied by payment of the fees necessary for permanent curation.
9) A report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the lead agency prior to the issuance of any building permits. The report will include DPR Primary and Archaeological Site Forms.

6.0 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.

October 20, 2020

Brian F. Smith
Principal Investigator
County of Riverside Registration #186

Date

7.0 REFERENCES

Baldwin, James
1979 Environmental Impact Evaluation: An Archaeological Assessment of Tentative Tract 13113, Sage Area of Riverside County, California. Field Survey Consultants. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Bean, Lowell John
1978 Cahuilla. In *California*, edited by Robert F. Heizer, pp. 575-587. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Charles R. Smith
1978 Gabrielino. In *California,* edited by R.F. Heizer. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell John and Florence C. Shipek
1978 Luiseño. In *California*, edited by Robert F. Heizer, pp. 550-563. Handbook of North American Indians, Vol. 8. William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

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

Brewer, Christine
1991 An Archaeological Assessment of Parcel Map No. 25898, County of Riverside, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Brian F. Smith and Associates, Inc.
Various dates. Research library holdings including Sanborn maps, USGS maps, aerial photographs, city directories, published regional histories, and geologic and paleontological references.

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

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

20(2):195-218.

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

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

City of San Jacinto
2020 Explore San Jacinto: History. Electronic document, http://www.ci.san-jacinto.ca.us/explore/history.html, accessed July 1, 2020.

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

Cotterman, Cary D. and Evelyn N. Chandler
2007 Cultural Resources Inventory of 8 Proposed Pole Replacements In and Near Unincorporated Communities of Nuevo and Sage, In the City of Menifee and Near the City of Perris, Riverside County, California (DWO 6077-4800; 1-4886, 2-4801, 2-4802, 2-4803, 2-480, 2-4813, 2-4814, 2-4815). ECORP Consulting. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Dalton, John
1998 Archaeological Reconnaissance Report: RCHCA Land Exchange/Sale Archaeological Inventory. BLM. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Drover, Christopher E.
1988 An Archaeological Assessment of PM 23033, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

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

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

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

Gallegos, Dennis R.
1987 A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito-La Jolla Chronology and Controversy*, edited by Dennis Gallegos, pp. 23-34. San Diego Archaeological Society Research Paper No. 1.

1992 Patterns and Implications of Coastal Settlement in San Diego County: 9000 to 1300 Years Ago. In *Essays on the Prehistory of Maritime California*, edited by Terry L. Jones, pp. 205-216. Center for Archaeological Research at Davis No. 10. University of California, Davis.

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

Garrison, Andrew J. and Brian F. Smith
2020 A Phase I Cultural Resources Assessment and Archaeological Test Plan for the Hansen Lot Split Project, TPM 37655, Riverside County, California. Brian F. Smith and Associates, Inc. On file at the County of Riverside Planning Department, Riverside, California.

Gunther, Jane Davies
1984 *Riverside County, California, Place Names: Their Origins and Their Stories.* Rubidoux Printing, Riverside, California.

Handley, Charles
1967 The Sun City Story. *Sun City News* 2 February:6, 15-19. Sun City, California.

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

Heidelberg, Kurt and Laura Hoffman
2012 Archaeological Survey Report for Southern California Edison Company's Replacement of Three Deteriorated Power Pole Structures (WO 6077-4800, 3-4831/TD566591) on the Corsair 12 kV Circuit in Riverside County, California. SWCA Environmental Consultants. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Jackson, Adrianna
2000 Records Search Results for Sprint PCS Facility RV33XC267C (Pope Property Site),

Sage Road/ Red Mountain Road, Hemet, Riverside County, CA. Michael Brandman Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Jones, Wendy and Evelyn Chandler
2011 Cultural Resources Inventory of a Proposed Pole Replacement South of the City of Hemet, Riverside County, California (TD548524). ECORP Consulting, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Keller, Jean A.
2006 A Phase I Cultural Resources Assessment of Tentative Parcel Map 33365, +/- 20.09 Acres of Land near Sage, Riverside County, California. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

2013 A Phase I Cultural Resources Assessment of Tentative Parcel Map 34253 APN 470-210-012 20.01 Acres of Land Near Hemet Riverside County, California Section 36, Township 6 South, Range 1 West, SBM USGS Sage, California Quadrangle, 7.5' Series. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Koerper, Henry C., Paul E. Langenwalter II, and Adella B. Schroth
1986 The Agua Hedionda Project Archaeological Investigations at CA-SDI-5353 and CA-SDI-9649. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

Kowta, Makoto
1969 The Sayles Complex: A Late Millingstone Assemblage from Cajon Pass, and the Econological Implications of its Scraper Planes. *University of California Prehistory* (6), Salinas, California.

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

Law, George
1922 San Jacinto's Achievement in Dairying. *Los Angeles Times.* 23 April. Los Angeles, California.

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

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

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

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

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

Meighan, Clement W.
1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2):215-227.

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

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

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

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

Office of Historic Preservation
N.d. California Historical Resources Database. Department of Parks and Recreation, Sacramento, California. Electronic document, https://ohp.parks.ca.gov/Listed Resources/?view=county&criteria=33, accessed July 23, 2020.

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

Peak & Associates, Inc.
1996 Cultural Resource Assessment of Two Contiguous Five Acre Parcels Under Consideration by the California Department of Forestry for the Development of New Facilities Near Sage, Riverside County, California. Peak & Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Pitman, Leon
1976 Domestic Tankhouses of Rural America. *Pioneer America* Vol. 8, pp. 84-97.

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

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

Raven-Jennings, Shelly, Brian F. Smith and Johnna L. Buysse
1996 The Results of a Cultural Resource Study at the 4S Ranch, Rancho Bernardo, County of San Diego. Unpublished report on file at the South Coastal Information Center at San Diego State University, San Diego, California.

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

Rolle, Andrew F.
1969 *California: A History*. 2nd ed. Thomas Y. Crowell Company, New York.

Rosenberg, Seth A.
2005 A Cultural Resources Study for the Sandon Lot Split Project, County of Riverside, APN 470-220-001. Brian F. Smith and Associates. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Schmidt, James J.
2012 Archaeological Survey Report for Southern California Edison Company's Replacement of Five Deteriorated Power Pole Structures on the Corsair 12 kV Distribution Circuit (WO#6077-4800; 3-4838 77-TD566623 and 3-4840 77-TD566629), Near Hemet,

Riverside County, CA. Compass Rose Archaeological, Inc. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Schroth, Adella B.
1987 An Archaeological Assessment of TP 22280, Located in the Sage Area of Southern Riverside County, California. Archaeological Research Unit, U.C. Riverside. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Shumway, George, Carl L. Hubbs, and James R. Moriarty III
1961 Scripps Estates Site, San Diego, California: A La Jolla Site Dated 5,460-7,370 Years Before the Present. In *Annals of the New York Academy of Sciences* 93(3):41-131.

Smith, Brian F. and James R. Moriarty, III
1985 The Archaeological Excavations at Batiquitos Pointe and Batiquitos Bluffs. Unpublished report on file at the City of Carlsbad.

SoilWeb
2020 An online soil survey browser. California Soil Resource Lab. Electronic document, https://casoilresource.lawr.ucdavis.edu/gmap/, accessed May 21, 2020.

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

Strong, William Duncan
1929 *Aboriginal Society in Southern California.* Publications in American Archaeology and Ethnology No. 26, University of California, Berkeley.

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

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

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

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

Tang, Bai, Deirdre Encarnacion, and Daniel Ballester
2010 Phase I Archaeological Assessment: Tentative Parcel Map No. 33581, Assessor's Parcel Nos. 470-180-051 and -052, Sage Area, Riverside County, California. CRM Tech. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

True, Delbert L.
1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3):255-263.

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

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

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

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

Warren, Claude N., Delbert L. True and Ardith A. Eudey
1961 Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey. *Archaeological Survey Annual Report* 1960-1961. University of California, Los Angeles.

White, Robert S.
1992 An Archaeological Assessment of a 20.09-acre Parcel as Shown on PM 27181. Archaeological Associates, LTD. Unpublished report on file at the Eastern Information Center at the University of California at Riverside, Riverside, California.

Wiley, Nancy Anastasia
2018 Report of Findings from a Record Search Conducted for Assessor's Parcel Number 436-600-012, 013, -014. SRSinc. Unpublished report on file at the City of San Jacinto, California.

APPENDIX A

Qualifications of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator

Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: bsmith@bfsa-ca.com

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 **1977–Present**
Brian F. Smith and Associates, Inc. **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), Parkloft

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—included 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—included 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 geotechnichal 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 achaeologist/ 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 II 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 Otay 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.

Tracy A. Stropes, MA, RPA

Senior Project Archaeologist

Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: tstropes@bfsa-ca.com

Education

Master of Arts, Anthropology, San Diego State University, California **2007**

Bachelor of Science, Anthropology, University of California, Riverside **2000**

Professional Memberships

Register of Professional Archaeologists
Society for California Archaeology
Archaeological Institute of America

Experience

Project Archaeologist **March 2009–Present**
Brian F. Smith and Associates, Inc. **Poway, California**

Project Management of all phases of archaeological investigations for local, state, and federal agencies, field supervision, lithic analysis, National Register of Historic Places (NRHP) and California Environmental Quality Act (CEQA) site evaluations, and authoring/coauthoring of cultural resource management reports.

Archaeological Principal Investigator **June 2008–February 2009**
TRC Solutions **Irvine, California**

Cultural resource segment of Natural Sciences and Permitting Division; management of archaeological investigations for private companies and local, state, and federal agencies, personnel management, field and laboratory supervision, lithic analysis, Native American consultation and reporting, MRHP and CEQA site evaluations, and authoring/coauthoring cultural resource management reports.

Principal Investigator and Project Archaeologist **June 2006–May 2008**
Archaeological Resource Analysts **Oceanside, California**

As a sub consultant, served as Principal Investigator and Project Archaeologist for several projects for SRS Inc., including field direction, project and personnel management, lab analysis, and authorship of company reports.

Project Archaeologist **September 1996–June 2006**
Gallegos & Associates **Carlsbad, California**

Project management, laboratory management, lithic analysis, field direction, Native American consultation, report authorship/technical editing, and composition of several data

recovery/preservation programs for both CEQA and NEPA level compliance.

Project Archaeologist **September 1993–September 1996**
Macko Inc. **Santa Ana, California**

Project management, laboratory management, lithic analysis, field supervision, and report authorship/technical editing.

Archaeological Field Technician **January 1993–September 1993**
Chambers Group Inc. **Irvine, California**

Archaeological excavation, surveying, monitoring, wet screen facilities management, and project logistics.

Archaeological Field Technician **May 1992–September 1992**
John Minch and Associates **San Juan Capistrano, California**

Archaeological excavation, surveying, monitoring, wet screen facilities management, and project logistics.

Reports/Papers

Principal Author

2020 A Section 106 (NHPA) Historic Resources Study for the Pacifica Estates Project, Fallbrook, San Diego County, California. Prepared for Jose Islas.

2019 A Cultural Resource Assessment for the Glen Circle Project, Poway, California. Prepared for MDD Homes.

2019 Cultural Resources Survey for the Highlands at Warner Springs and Off-Site Fire Access Road Project, Warner Springs, San Diego County, California. Prepared for Warner Springs Estates, LLC.

2019 A Cultural Resources Assessment for the 8801 East Marginal Way Project, City of Tukwila, King County, Washington. Prepared for CenterPoint Properties Trust.

2019 Cultural Resource Monitoring Report for the 7980 Park Village Road Emergency Repair Project, San Diego, California. Prepared for Orion Construction Corporation.

2019 Mitigation Monitoring and Reporting Program for the Harmony Grove Village, San Diego County, California. Prepared for Lennar – San Diego Division.

2019 Cultural Resource Monitoring Report for the Price-Cohen Residence Project, 2045 Lowry Place, La Jolla, California 92037. Prepared for Lena Price and Thomas Cohen.

2019 A Section 106 (NHPA) Historic Resources Study for the Melrose Drive Widening Project, City of Oceanside, California. Prepared for California West Communities.

2019 A Cultural Resources Study for the Majestic Chino Heritage Project, City of Chino, San Bernardino County, California. Prepared for T&B Planning, Inc.

2019 Cultural Resources Study for the Ocean Breeze Ranch Project, Bonsall, San Diego County, California. Prepared for Ocean Breeze Ranch, LLC.

2019 Mitigation Monitoring and Reporting Program for the Arthofer Residence Project, 1890 Viking Way, La Jolla, California. Prepared for Frank and Sharon Arthofer.

2019 A Phase I and II Cultural Resources Assessment for the Greentree Ranch Project, Riverside County, California. Prepared for T&B Planning, Inc.

2018 A Section 106 (NHPA) Historic Resources Study for the Escondido Country Club Project, SPL-2018-00135-CJA, City of Escondido, California. Prepared for New Urban West, Inc.

2018 A Phase I Cultural Resources Study for the North County Plaza Project, Carlsbad, California. Prepared for Planning Systems, Inc.

2018 Cultural Resources Addendum Report for the Ivey Palms Project, Thousand Palms, Riverside, California. Prepared for T&B Planning, Inc.

2017 Cultural Resource Monitoring Report for the Altman Residence Project, 9696 La Jolla Farms Road, La Jolla, California 92037. Prepared for Steve and Lisa Altman.

2017 Cultural Resources Study for the Escondido Country Club Project, City of Escondido, California. Prepared for New Urban West, Inc.

2017 A Class III Archaeological Study for the Tract 28859 Project for Section 106 Compliance. Prepared for Menifee 28859, LLC.

2016 A Section 106 (NHPA) Historic Resources Study for the Lake Ranch Project, TR 36730, Riverside County, California.

2016 Mitigation Monitoring and Reporting Program for the Imperial Beach Bikeway Village Project, 536 13th Street and 535 Florence Street, Imperial Beach, California. Prepared for Bikeway Village, LLC.

2015 Cultural Resource Data Recovery and Mitigation Monitoring Program for Site SDI-10,237 Locus F, Everly Subdivision Project, El Cajon, California. Prepared for Shea Homes.

2015 A Class III Historic Resource Study for the Miramar Clearwell Improvements Project, San Diego, California. Prepared for Global Environmental Permitting, Inc.

2015 A Class III Historic Resource Study for the College Boulevard Project, Carlsbad, California. Prepared for Bent West, LLC.

2015 A Class III Archaeological Study for the Parkside Project for Section 106 Compliance, Riverside County, California. Prepared for Lennar Corporation.

2015 A Cultural Resource Assessment for the Zhao Residence Project, Poway, California (275-240-66). Prepared for Pacific Sotheby's International Realty.

2014 Phase I Cultural Resources Survey for the Utah Trail Project, County of San Bernardino, California (APNs 621-281-22 through 621-281-25). Prepared for Ecos Energy, LLC.

2014 Phase I Archaeological Assessment for the Sky Canyon Project (PP25309), Riverside County, California. Prepared for Rocky Snider California Project Management Office.

2014 Phase I Cultural Resources Survey for the Shoshone Valley Road Project, County of San Bernardino, California (APNs 613-233-01, -02, -03, -04, -27, -28, -29, and -30). Prepared for Ecos Energy, LLC.

2014 Phase I Cultural Resources Survey for the Nuevo 055 Project, Community of Nuevo, County of Riverside. Prepared for Ecos Energy, LLC.

2014 A Phase I Cultural Resource Study for the Bourgeoios Project, Poway, California. Prepared for Bill Yen & Associates, Inc.

2014 A Cultural Resources Survey for the Aliso Canyon Major Subdivision Project, Rancho Santa Fe, San Diego County, California. Prepared for Zephyr Partners.

2014 Cultural Resource Monitoring Report for the Sewer Group 723 Project, San Diego, California. Prepared for
Ortiz Corporation.

2013 A Phase I Cultural Resource Study for the Rogers Tierra Bonita Project, Poway, California. Prepared for John D. Fitch & Associates.

2013 A Cultural Resource Assessment Update for the Girard Townhome Project, TR 35477, Riverside County, California. Prepared for G8 Development, Inc.

2013 Phase I Archaeological Assessment for the Ridge Park Project, City of Temecula, California. Prepared for Ambient Communities.

2013 A Phase I and Phase II Cultural Resource Study for the Citrus Heights/Fairway Drive Project, Riverside County, California. Prepared for CV Communities.

2013 Phase I Archaeological Assessment for the Bixby Highgrove Project (TTM 36437), Riverside County, California. Prepared for T&B Planning, Inc.

2013 A Class III Cultural Resources Study for the Ramona Ranch Affordable Housing Project for Section 106 Compliance, San Diego County, California. Prepared for AMCAL Multi-Housing, Inc.

2013 Phase I Archaeological Assessment for the Yates Road Project (TTM 36437), Riverside County, California. Prepared for CV Communities, LLC.

2013 A Cultural Resources Survey and Evaluation Program for the Warner Ranch Project, San Diego County, California. Prepared for HP Warner Ranch, LP.

2013 A Phase I Cultural Resource Assessment for TPM 36585, Riverside County, California. Prepared for GF Real Estate Services.

2013 A Class III Cultural Resources Study for TR 31597 and TR 32627, Riverside County, California. Prepared for Standard Pacific Homes.

2013 Phase I Cultural Resources Survey for the Sunny Cal Project, City of Beaumont, County of Riverside. Prepared for CV Communities, LLC.

2013 A Class III Cultural Resources Study for The Sierra Bella Project for Section 106 Compliance, Riverside County, California. Prepared for Forestar Corona, LLC.

2013 A Class III Cultural Resources Study for the Moosa Creek Mitigation Bank Project. Prepared for a Creek LLC.

2013 Archaeological Survey of the Rohmiller Residence for a Bulletin 560 Permit Application, 2350 Calle De La Garza, La Jolla, California 92037 (APN 346-180-22). Prepared for Architect Mark D. Lyon, Inc.

2013 Cultural Resources Survey and Evaluation Program for the Oak Creek Project, City of Escondido, California. Prepared for New Urban West, Inc.

2013 Phase I Cultural Resources Survey for the Hope Harbor Project, Riverside County, California. Prepared for Medhat Rofael.

2013 Archaeological Survey of the Liske Residence, La Jolla, California. Prepared for ECEGC Inc.

2013 An Updated Phase I Cultural Resources Assessment for Tentative Tract Maps Nos. 36484 and 36485, Audie Murphy Ranch. Prepared for Brookfield Residential.

2013 A Phase I Cultural Resources Study For the 401 West Ash Street Project San Diego, California. Prepared for PierPoint Legacy Holdings, LLC.

2013 Cultural Resource Test Plan for the Ten on Columbia Project, San Diego, California. Prepared for InDev, Inc.

2013 Phase I Cultural Resources Survey for the Washington Avenue Project, City of Murrieta, California. Prepared for Coastal Land Solutions.

2012 Phase I Cultural Resources Survey for the Wildomar 23 Project, Riverside County, California. Prepared for Lennar.

2012 A Class III Cultural Resources Study for the USGS Creepmeter Project. Prepared for Bureau of Land Management, El Centro Office.

2012 Mitigation Monitoring Report for the for the Johnston Residence Project, La Jolla, California. Prepared for Heather Johnston.

2012 A Phase I Cultural Resource Study for the Howell Residence Project, Poway, California. Prepared for Cal Howell.

2012 Cultural Resource Monitoring Report for the Sewer and Water Group 799 Project. Prepared for Burtech Pipeline.

2012 A Phase I Cultural Resources Study For the Villa Hermosa Project San Diego, California. Prepared for David Chow.

2012 A Phase I Cultural Resource Study for the Payan Property Project, San Diego, California. Prepared for Landmark Engineering.

2012 A Phase I Cultural Resource Study for the El Camino Real Widening Project, Carlsbad, California. Prepared for Planning Systems.

2012 A Phase I Cultural Resource Study for the Encore Trust Project, La Jolla, California. Prepared for Metcalf Development and Consulting.

2012 A Phase I Cultural Resource Study for the Andres Residence Project, La Jolla, California. Prepared for Engineering Design Group.

2012 Phase I Cultural Resources Survey for the Diamond Springs Project, Riverside County, California. Prepared for Benjamin J. Stables III, B 3 Consulting.

2012 A Phase I Cultural Resource Study for the ActivCare at Mission Bay Project, San Diego, California. Prepared for ActivCare Living, Inc.

2012 Mitigation Monitoring Report for the Water Group 790 Project, City of San Diego, California. Prepared for Orion Construction Corporation.

2012 Results of the Mitigation Monitoring Program for the Mission Brewery Villas Project, City of San Diego, California. Prepared for Eilar Associates, Inc.

2012 Cultural Resource Monitoring Report for the Gatto Residence Project, La Jolla, California. Prepared for Marengo Morton Architects Inc.

2012 Cultural Resource Monitoring Report for the Sunset Cliffs Trunk Sewer Project, City of San Diego, California. Prepared for KTA Construction.

2012 Mitigation Monitoring Report for the Sewer Group 682M Project, City of San Diego, California. Prepared for BRH Garver.

2012 Cultural Resource Monitoring Report for the Pelberg Residence Project, City of San Diego, California. Prepared for Linda and Art Pelberg.

2012 Cultural Resource Monitoring Report for the Rose Creek Bikeway Bridge Project, City of San Diego, California. Prepared for Flatiron West, Inc.

2011 Mitigation Monitoring Report for the South Mission Valley Trunk Sewer Project, City of San Diego, California. Prepared for HPS Mechanical, Inc.

2011 A Class III Cultural Resources Study for the La Dama de Oro Project, San Bernardino County, California. Prepared for Mohave Gold Mining & Exploration, Inc.

2011 Mitigation Monitoring Report for the Jacobs Health Care Facility Project, City of San Diego, California. Prepared for Jacobs Health Care, LLC.

2011 A Phase I Cultural Resources Study For the Rowland Auto Dismantling Project, City of San Diego, California. Prepared for David Rowland.

2011 A Phase I Cultural Resource Study for the Dye Residence Project, La Jolla, California. Prepared for Eric Dye.

2011 Phase I Cultural Resources Survey for the Santa Rosa Academy Project, Riverside County, California. Prepared for Santa Rosa Academy Charter School c/o Bradley Burke Competitive Edge Development, LLC.

2011 Cultural Resource Data Recovery Study for SDI-4606 Locus B for Saint Gabriel's Catholic Church, Poway, California. Prepared for Saint Gabriel's Catholic Church.

2011 A Phase I Cultural Resource Study for the Nooren Residence Project, La Jolla, California. Prepared for Jack Nooren.

2011 Mitigation Monitoring Report for the Sewer and Water Group 768 Project, City of San Diego, California. Prepared for Ortiz Corporation.

2011 Cultural Resource Test for the 10th Avenue Parking Lot Project, City of San Diego, California. Prepared for 11th and B Investment Associates, LLC.

2011 A Cultural Resources Study for the Ampudia Lot Project, City of San Diego, California. Prepared for Venture Pacific Commercial Services, Inc.

2011 A Phase I Cultural Resource Study for the Hyde Residence Project, La Jolla, California. Prepared for Paul and Denise Hyde.

2011 A Phase I Cultural Resource Study for the Fialko Residence Project, La Jolla, California. Prepared for Thomas Armstrong Construction, Inc.

2011 Mitigation Monitoring Report for the Sewer Group 682M Project, City of San Diego, California. Prepared for HTA Engineering & Construction Inc.

2011 A Phase I Cultural Resource Study for the Butterfield Residence Project, La Jolla, California. Prepared for Geotechnical Exploration, Inc.

2011 A Cultural Resource Monitoring Report for the Eichen Residence Project, San Diego, California. Prepared for Steigerwald-Dougherty, Inc.

2011 Phase I Cultural Resources Survey for the Galway Downs Project, Riverside County, California. Prepared for Trip Hord.

2011 Cultural Resource Monitoring Report for Rancho Bella Vista Phase IV (TR 31871), Riverside County, California. Prepared for Lennar Inland Division.

2011 Cultural Resource Monitoring Report for the Salvation Army Vehicle Storage Area Demolition Project. Prepared for The Salvation Army General Counsel.

2011 A Phase I Cultural Resource Study for the Kates Residence Project, La Jolla, California. Prepared for Brad and Shannon Kates.

2011 A Phase I Cultural Resource Study for the Kralik Residence Project, La Jolla, California. Prepared for John Kralik.

2010 An Archaeological Monitoring Report for the Cricket Cell Tower Project (Permit # 3399 06-032), San Diego County, California. Prepared for Ken Hayes.

2010 A Cultural Resources Study for the 47th Street Warehouse Project City of San Diego, California, Project No. 190957. Prepared for 47th Street Properties.

2010 A Cultural Resource Study for the Dickenson Ranch Project, San Bernardino County, California. Prepared for Dickenson and Son Property Management and Investments.

2010 A Phase I Cultural Resources Survey for the Young Family Trust Lot Split Project City of Escondido, California. Prepared for Young Family Trust.

2010 An Archaeological Monitoring Report for the Jamul Rural Fire Station Auxiliary Access Road Project, San Diego County, California. Prepared for TCB.

2010 Cultural Resource Survey and Evaluation Program for the Citracado Parkway Extension Project, City of Escondido, California. Prepared for AECOM.

2010 Phase I Cultural Resources Survey for the Sycamore Creek Specific Plan No. 256 Amendment No. 2, Riverside County, California. Prepared for T&B Planning.

2010 A Phase III Cultural Resource Data Recovery Program for CA-SDI-16,986, Hidden Meadows, San Diego County, California (TPM 20794). Tuscan Ridge, LLC.

2010 Historic Properties Treatment Plan for the Talega (64 Area) 12kV Conversion Project Marine Corps Base Camp Pendleton San Diego County California. Prepared for Synergy Electric Company, Inc.

2010 A Cultural Resources Survey and Evaluation Program for the Highlands at Warner Springs Project, Warner Springs, San Diego County, California. Prepared for Warner Springs Estates, LLC.

2010 A Cultural Resources Literature Review for the 11099 North Torrey Pines Road Project, San Diego, California. Prepared for Touchstone Investments.

2010 A Phase I Cultural Resources Survey for the San Jacinto Poultry Ranch Storage Building Project, San Jacinto, California. Prepared for Moark, LLC.

2010 A Phase III Cultural Resource Data Recovery Program for SDI-16986, Hidden Meadows, San Diego, California (TPM 20794). Prepared for Tuscan Ridge, LLC.

2010 Cultural Resources Study for the Dos Colinas Project, Carlsbad, California. Prepared for Dos Colinas, LLC.

2010 A Phase I Archaeological Survey of the Greater Alpine Fire Safe Council Horsethief Vegetation Management Project. Prepared for the Greater Alpine Fire Safe Council.

2010 A Phase I Cultural Resource Study for the Moses Residence Project, La Jolla, California. Prepared for Brian Moses.

2010 Pottery Canyon Site Archaeological Evaluation Project City of San Diego, California. Prepared for the City of San Diego Park and Recreation Department.

2010 A Phase I Cultural Resource Study for the Shabaz Residence Project, La Jolla, California. Prepared for Negar Shabaz.

2009 A Phase I Cultural Resources Study for the Kramer 453 Project, San Bernardino County, California. Prepared for LightSource Renewables LLC.

2009 A Cultural Resources Study for the Hronopoulus Residence Project, City of San Diego, California. Prepared for Andreas Hronopoulus.

2009 A Cultural Resources Monitoring Report for the East Point Loma Trunk Sewer Project, San Diego, California. Prepared for Southern California Soil and Testing.

2009 A Cultural Resources Study for the McKean SDP Project. San Diego, California.

2009 An Archaeological Assessment for the Rivera-Placentia Project, City of Riverside, California. Prepared for Riverside Construction Company.

2009 Cultural Resource Data Recovery Plan for the North Ocean Beach Gateway Project. Prepared for the City of San Diego and KTU+A.

2009 Cultural Resource Letter Report for the Borrego Substation Feasibility Study, Borrego Springs,

California. Prepared for RBF Consulting.

2009 A Cultural Resource Study for the Gatto Residence Project, La Jolla, California. Prepared for Marengo Martin Architects Inc.

2009 A Cultural Resource Report for the Central Feeder Connection Project, San Bernardino, California. Prepared for Albert A. Webb and Associates.

2009 A Cultural Resource Report for the Clay Street Connection Project, Riverside, California. Prepared for Albert A. Webb and Associates.

2009 A Cultural Resource Report for the Green Hills Project, San Diego County, California. Prepared for Atlas Investments, LLC.

2009 A Cultural Resource Report for the La Sierra Pipeline Project, Riverside, California. Prepared for Albert A. Webb and Associates.

2009 Cultural Resources Monitoring Report for the East Point Loma Trunk Sewer Project. Prepared for Southern California Soil & Testing.

2009 A Cultural Resource Report for the Mockingbird Connection Project, Riverside, California. Prepared for Albert A. Webb and Associates.

2009 A Cultural Resource Report for the Mesquite Lake Treatment Plan Project, Imperial County, California. Prepared for Albert A. Webb and Associates.

2008 Phase I Cultural Resource Survey for the 28220 Highridge Road Development Project, Rancho Palos Verdes, California. Prepared for REC Development.

2008 Wild Goose Expansion 3 Project Butte County, California Colusa County, California. Prepared for Niska Gas Storage LLC.

2008 Class III Cultural Resource Survey for the Burlington Northern Santa Fe Four Railway Bridge Renewal Project, San Bernardino County, California. Prepared for BNSF Railway Company.

2008 I-80 Colfax Site Cultural Resource Records Search Report, Placer County, California. Prepared for Granite Construction Company.

2008 I-80 Gold Run Site Cultural Resource Records Search Report, Placer County, California. Prepared for Granite Construction Company.

2008 Cultural Resource Monitoring at 31431 Camino Capistrano, San Juan Capistrano, California. Prepared for Herman Weissker, Inc.

2008 Cultural Resource Inventory for the Snow White Pumice Mine, Hinkley, California. Prepared for U.S. Mining and Minerals Corporation.

2007 Nodule Industries of North Coastal San Diego: Change and Stasis in 10,000 Years of Lithic Technology. Masters thesis on file, San Diego State University.

2007 Cultural Resource Inventory for Empire Homes (APN 104-180-04), Lake Forest, California. Prepared for Empire Homes.

2007 Phase I Archaeological Assessment for APN 104-200-09, Beaumont, California. Prepared for Mary

Chan.

2007 Cultural Resource Inventory for Empire Homes (APN 104-180-04), Lake Forest, California. Prepared for Empire Homes.

2006 Carlsbad Municipal Golf Course Data Recovery Program for CA-SDI-8694, and Indexing and Preservation Program Study for CA-SDI-8303 and CA-SDI-8797 Locus C, City of Carlsbad, California. Prepared for City of Carlsbad.

2005 Grand Pacific Resorts Data Recovery and Index Sample Program for CA-SDI-8797, Area A, City of Carlsbad, California. Prepared for Grand Pacific Resorts Inc.

2004 "Near the Harris Site Quarry" Cultural Resource Data Recovery and Preservation Program for CA-SDI-13028, San Diego County, California. Prepared for Harbrecht Development, L.P.

2004 Cultural Resource Survey and Boundary Test Report for the Lilac Ranch Project, San Diego County, California. Prepared for Empire Companies.

2003 Cultural Resource Data Recovery and Preservation Program for CA-SDI-12027, San Diego County, California. Prepared for Harbrecht Development Inc.

2002 Data Recovery Program for the Pacbell Site CA-SDI-5633, San Marcos, California. Prepared for Joseph Wong Design Associates.

2001 McCrink Ranch Cultural Resource Test Program Additional Information for Selected Sites, San Diego County, California. Prepared for Shapouri & Associates.

2001 The Quail Ridge Project Cultural Resource Test Program, San Diego County, California. Prepared for Helix Environmental Planning, Inc.

2000 Cultural Resource Survey and Evaluation for the North Sand Sheet Full Buildout Program, Owens Lake, California. Prepared for CH2MHill.

1995 Final Report: Archaeological Investigations Conducted for the Abalone Cove Dewatering Wells, City of Rancho Palos Verdes Los Angeles County, California. Prepared for the City of Rancho Palos Verdes, Environmental Services.

1995 Final Report: A Class III Intensive Survey of a 100-Acre Sand and Gravel Mining Area, Imperial County, California. Prepared for the Lilburn Corporation.

1994 Final Report: Data Recovery Excavations at Five Late Prehistoric Archaeological Sites Along the Los Trancos Access Road, Newport Coast Planned Community, Orange County, California. Prepared for the Coastal Community Builders, a division of The Irvine Company.

Contributing Author

2019 Cultural Resources Study for the 3868-3900 Sepulveda Boulevard Project, City of Culver City, Los Angeles County, California. Prepared for Sepulveda Suites, Inc.

2019 Final Archaeological Data Recovery and Mitigation Monitoring Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California. Prepared for Grand Pacific Resorts, Inc.

2019 Cultural Resources Study for the Commerce Logistics Center Project, 5200 Sheila Street, Commerce, California 90040. Prepared for T&B Planning, Inc.

2019 A Section 106 (NHPA) Historic Resource Study for the McElwain Project (SPL-2019-00565), Murrieta, Riverside County, California. Prepared for Murrieta Development II, LLC.

2019 Phase II Cultural Resource Study for the McElwain Project, City of Murrieta, California. Prepared for Murrieta Development II, LLC.

2018 A Phase I and II Cultural Resources Assessment for the Emerald Acres Project, Winchester, Riverside County. Prepared for T&B Planning, Inc.

2018 A Cultural Resources Monitoring Report for the Golden City Project, Tracts 28532-1, -2, -3, -4, and -5 and Tract 34445, City of Murrieta, California. Prepared for North Murrieta Community, LLC.

2018 An Archaeological/Historical Study for the Citracado Business Park West Project, City of Escondido. Prepared for Pacific Harmony Grove Development.

2015 Cultural Resource Survey and Evaluation Program for the Westin Hotel and Timeshare Project, City of Carlsbad, California. Prepared for Grand Pacific Resorts, Inc.

2015 A Class III Cultural Resource Study for the Habitat for Humanity Project, Perris, California. Habitat for Humanity Inland Valley.

2015 A Phase II Cultural Resource Assessment for the Munro Valley Solar Project, Inyo County, California. Prepared for Prepared for Ecos Energy, LLC.

2014 An Extended Phase I Cultural Resource Assessment for the Belvedere-Webster Project, City of Poway, California (APN 323-010-26-00). Prepared for Webster Realty Group.

2014 Cultural Resources Study for the Brook Forest Conservation Bank Project, Valley Center, San Diego County, California. Prepared for Brook Forest, LLC.

2014 A Phase I Cultural Resource Study for the Crystal View Lane Project, Poway, California. Prepared for Mark Catrambone.

2014 Cultural Resource Assessment for the Muscat Project, Poway, California (TPM 13-002; APN 278-180-44). Prepared for Mr. Ed Muscat.

2014 An Extended Phase I Cultural Resource Assessment for the Mulholland Highway Improvement Project, Cities of Calabasas and Los Angeles, Los Angeles County, California. City of Calabasas Public Works Department.

2014 Mitigation Monitoring Report for the 9th and Broadway Project, City of San Diego. Prepared for Bridge Housing Corporation.

2013 Cultural Resource Test Plan for the Cisterra Sempra Tower Project San Diego, California. Prepared for Eilar Associates, Inc.

2013 A Section 106 (NHPA) Cultural Resources Study for the Toscana Project, Riverside County, California. Prepared for Forestar Toscana, LLC.

2013 Cultural Resource Test Plan for the Gaslamp Hotel Project. Prepared for The Robert Green Company.

2012 Cultural Resource Test Plan for the Pinnacle International 15th and Island Project. Prepared for Pinnacle International.

2012 Cultural Resource Test Plan for the Horton Plaza Park Improvement Project. Prepared for the City of San Diego.

2012 Mitigation Monitoring Report for the T-Mobile West, LLC Telecommunications Candidate SD02867C (Presidio Park). Prepared for Michael Brandman Associates.

2012 Cultural Resource Test Plan for the Old Police Headquarters Project. Prepared for Terramar Retail Centers.

2012 Cultural Resource Test Plan for the Knight Residence Project. Prepared for Mr. Dennis Knight.

2012 Cultural Resource Test Plan for the 9th and Broadway Project. Prepared for Bridge Housing Corporation.

2012 Cultural Resource Test Plan for the Blue Sky Project. Prepared for Gray Development.

2011 An Archaeological Study for 1887 Viking Way Project, La Jolla, California. Prepared for Island Architects.

2011 A Cultural Resource Evaluation Program for the Otay Hills Quarry Project, San Diego County, California, Log No. 93-19-006J; P04-004; RPO4-001. Prepared for EnviroMINE.

2010 A Cultural Resource Evaluation Program for the Batchelder Lot Split Project, San Diego County, California, TPM 21177; KIVA PROJECT 10-0125593; APNs 247-010-10, -13. Prepared for David Batchelder.

2010 A Cultural Resources Survey and Evaluation Program for the Butterfield Trails Ranch Project, Valley Center, San Diego County, California, TM 5551, P 08-028, GPA 06-007, REZ 06-010, LOG NO. 06-08-033. Prepared for Wayne B. Hilbig.

2008 Lithic Analysis for Thirteen Sites Along the Transwestern Phoenix Expansion Project, Loops A and B. Prepared for Transwestern Pipeline Company, LLC.

2005 Cultural Resource Survey and Testing for the Star Ranch Property, San Diego, California.

2004 Cultural Resource Test Report for the Palomar Point Project: Site CA-SDI-16205, Carlsbad, California. Prepared for Lanikai Management Corp.

2004 Cultural Resource Survey and Test Report for the Canyon View Project, Carlsbad, California. Prepared for Shapouri & Associates.

2004 Cultural Resource Test Report for the Yamamoto Property: Site SDM-W-2046, Carlsbad, California. Prepared for Cunningham Consultants, Inc.

2004 Historical Resources Report for the Kuta and Mascari Properties, Otay Mesa, California. Prepared for Centex Homes.

2004 Cultural Resource Monitor and Test Report for the Encina Power Plant Project, Carlsbad, California. Prepared for Haley & Aldrich, Inc.

2004 Cultural Resource Test Report for Site CA-SDI-16788, Otay Mesa, California. Prepared for Otay Mesa Property, L.P.

2004 Cultural Resource Survey and Test Report for the Lonestar Project, Otay Mesa, San Diego

County, California. Prepared for Otay Mesa Property, L.P.

2003 Cultural Resource Mitigation Program for the Torrey Ranch Site CA-SDI-5325, San Diego, California. Prepared for Garden Communities.

2003 Cultural Resource Survey and Test Report for the Johnson Canyon Parcel, Otay Mesa, San Diego County, California. Prepared for Otay Mesa Property, L.P.

2002 Cultural Resource Data Recovery Plan for the Shaw Project: Sites CA-SDI-13025 and CA-SDI-13067, San Diego County, California. Prepared for Shapouri & Associates.

2001 Archaeological Test Program for CA-SDI-14112 Mesa Norte Project, San Diego, California. Prepared for Hunsaker & Associates.

2001 The Vista-Oceanside Cultural Resource Survey and Test Program, Vista, California. Prepared for Shapouri & Associates.

2001 Cultural Resource Test Program for the Wilson Property, Carlsbad, California. Prepared for the City of Carlsbad.

2001 Cultural Resource Test Plan for the Oceanside-Escondido Project, County of San Diego, California. Prepared for Dudek & Associates.

2001 Cultural Resource Test Program for the Kramer Junction Expansion Project Adelanto, California. Prepared for AMEC.

2001 Cultural Resource Test Program for CA-SDI-12508 San Diego, California (LDR No. 99-1331). Prepared for Garden Communities.

2000 Archaeological Testing of Prehistoric Sites CASDI-14115 and CA-SDI-14116 for The Mesa Grande Project, San Diego, California. Prepared for Solana Mesa Partners, LLC.

2000 Cultural Resource Survey and Test Report for the Wetmore Property, Otay Mesa, San Diego County, California. Prepared for Mr. Andy Campbell.

2000 The Torrey Ranch Cultural Resource Test Program, San Diego County, California. Prepared for Garden Communities.

2000 Cultural Resource Test Results for the Otay Mesa Generating Project. Prepared for the California Energy Commission and Otay Mesa Generating Company, LCC.

2000 The Eternal Hills Cultural Resource Survey and Test Program, City of Oceanside, California. Prepared for Eternal Hills Memorial Park.

2000 The Quail Ridge Cultural Resource Test Program, San Diego County, California. Prepared for Helix Environmental Planning Inc.

2000 Cultural Resource Testing Program for CA-SDI-5652/H and CA-SDI-9474H SR 78/Rancho Del Oro Interchange Project, Oceanside, California. Prepared for Tetratech Inc.

2000 Cultural Resource Test Results for a Portion of CA-SDI-8654 (Kuebler Ranch) Otay Mesa, San Diego County, California. Prepared for Shapouri & Associates.

2000 Historical/Archaeological Monitoring and Data Recovery Program for Prehistoric Site CA-SDI-48,

Locus C Naval Base Point Loma, San Diego, California. Prepared for Department of the Navy, Southwest Division.

2000 Cultural Resource Evaluation Report for the Palomar College Science Building Project, San Marcos, California. Prepared for Parsons Engineering Science Inc.

1999 Cultural Resource Monitoring Report for the Village of Ystagua Water Main Break City of San Diego, California. Prepared for the City of San Diego Water Department.

1999 The Effect of Projectile Point Size on Atlatl Dart Efficiency in Lithic Technology Vol. 24, No 1 p (27-37).

1999 Cultural Resource Evaluation Report for the Oceanside-Escondido Bikeway Project, San Marcos, California. Prepared for City of San Marcos.

1999 5000 Years of Occupation: Cultural Resource Inventory and Assessment Program for the Carlsbad Municipal Golf Course Project City of Carlsbad, California. Prepared or Cotton/Beland/Associates, Inc.

1999 Silver Oaks Estates Cultural Resource Enhanced Survey and Test Report for a Portion of CA-SDI-7202 San Diego, California. Prepared for Helix Environmental Planning Inc.

1999 Historical Archaeological Test of a portion of CA-SDI-8303 for the Faraday Road Extension Carlsbad, California. Prepared for the City of Carlsbad.

1999 Cultural Resource Literature Review for the North Coast Transportation Study Arterial Streets Alternative San Diego County, California. Prepared for MLF/San Diego Association of Govt.

1998 Archaeological Test Report for a Portion of CA-SDI-9115/SDM-W-122 Carlsbad, California. Prepared for Industrial Developments International.

1998 Rainforest Ranch Cultural Resource Survey and Significance Test for Prehistoric Sites CA-SDI-14932, CA-SDI-14937, CA-SDI-14938, and CA-SDI-14946 County of San Diego, California. Prepared for the Boys and Girls Club of Inland North County.

1998 Cultural Resource Evaluation Report for the Oceanside-Escondido Bikeway Project San Marcos, California.

1998 Final Report: Cultural Resource Survey Report for the Sterling Property, Carlsbad, California. Prepared for SPT Holdings LCC.

1996 Final Report: Archaeological Survey and Test for the Huber Property Carlsbad, California. Prepared for Gene Huber.

1996 Final Report: Results of Phase II Test Excavations and Phase III Data Recovery Excavations at Nine Archaeological Sites Within the Newport Coast Planned Community Phase III Entitlement Area, San Joaquin Hills, Orange County, California. Prepared for Coastal Community Builders, a division of The Irvine Company.

1995 Preliminary Report: Phase II Test Results From Nine Prehistoric Archaeological Sites within the Proposed Upper Newport Bay Regional County Park. Prepared for EDAW, Inc.

1995 Final Report: A Phase II Test Excavation at CA-ORA-136, Block 800 City of Newport Beach, Orange County California. Prepared for the Irvine Apartment Communities.

APPENDIX B

Site Record Forms

(Deleted for Public Review; Bound Separately)

APPENDIX C

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX D

NAHC Sacred Lands File Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX E

Confidential Maps

(Deleted for Public Review; Bound Separately)