APPENDIX F

Cultural Resources Inventory and Evaluation Report (March 2021; Revised August 7, 2023)

CULTURAL RESOURCES INVENTORY AND EVALUATION REPORT for the EI CAMINO SENIOR HOUSING PROJECT, CITY OF SAN DIEGO, CALIFORNIA

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MARCH 2021

REVISED AUGUST 2023

Type of Study: Positive Cultural Resource Survey; Phase II Evaluation for CA-SDI-687
USGS Quadrangle: Del Mar, CA 7.5', T14S, R3W, Section 7 **Area:** 2.8-acre,
Key Words: Positive Survey, Senior Housing Facility, City of San Diego, Del Mar; CA-SDI-687, Invertebrate Shell Fragments

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Report Title:	Cultural Resources Inventory and Evaluation Report for the El Camino Senior Housing Project, City of San Diego, California
Type of Study:	Cultural Resources Inventory and Evaluation
Resources:	CA-SDI-687
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Acreage:	2.8 acres
Permit Numbers:	N/A
Keywords:	Positive Survey, Senior Housing Facility, City of San Diego, Del Mar; CA-SDI-687, Invertebrate Shell Fragments

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Acronyms and Abbreviations

Acronym	Definition
APE	area of potential effects
APN	Assessor's Parcel Number
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
DPR	California Department of Parks and Recreation
MLD	Most Likely Descendent
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
PRC	California Public Resources Code
project	El Camino Senior Housing
project applicant	PMB, LLC
SCIC	South Coastal Information Center
CU	Control unit
STP	shovel test pit

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Management Summary

This report presents the results of Dudek's Phase I cultural resources inventory and Phase II evaluation for the El Camino Senior Housing Project (Project), located in the northern section of the City of San Diego (City), California. The Project is located on Public Land and Survey System (PLSS) units Township 14 South; Range 3 West; Section 7 (NW quarter); of the Del Mar, California USGS 7.5-minute Quadrangle. The Project parcel (APN 304-650-37-00), located at 13860 El Camino Real, is situated near the confluence of San Dieguito River and Gonzales Creek, immediately southeast of El Camino Real Rd. It is bordered by the St. John Garabed Armenian Church to the north, vacant lots to the east and west and private residential neighborhoods to the south.

The City of San Diego is the lead agency for compliance with the California Environmental Quality Act (CEQA). In accordance with CEQA and the City of San Diego Historic Resources Guidelines, Dudek performed a Phase I cultural resources inventory for the entire area of potential effect (APE) and a Phase II evaluation for the Project. The APE consists of the entire 2.8-acre Project area.

A records search conducted by the South Coastal Information Center (SCIC) staff has indicated that one previously recorded prehistoric cultural resource, CA-SDI-687, intersects the southeastern portion of the proposed Project APE. Records indicate that CA-SDI-687 consists of an Archaic Period habitation site (Price and Underwood 2007; Giacinto and Hale 2012). CA-SDI-687 has not been previously evaluated in its entirety.

Dudek archaeologists conducted an intensive cultural pedestrian survey of the entire Project APE and the area of the previously recorded site, CA-SDI-687. Surface visibility was high throughout the Project APE. The entire Project APE has been entirely disturbed by previous ground disturbance activities (e.g. equestrian and agricultural). A total of three invertebrate bivalve shell fragments (1 Chione, and 2 Argopecten) were relocated dispersed diffusely within the previously recorded portions of CA-SDI-687 that intersects the southeastern portion of the Project APE.

Dudek conducted a Phase II evaluation of a portion of CA-SDI-687 that intersects the Project APE in March 2021. Dudek recommends that the portion of CA-SDI-687 that intersects the APE is not eligible for listing on the California Register of Historical Resources or under cultural guidelines for the City of San Diego. Though recommended not eligible, the presence of the CA-SDI-687 within the APE increases the probability that ground disturbing activities may encounter buried cultural resources. Dudek recommends the presence of an archaeological monitor and a Native American monitor during initial ground disturbance for the Project.

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1.0 Introduction

1.1 Project Location and Description

The proposed El Camino Senior Housing Project is situated within a 2.8-acre parcel (APN 304-650-37-00) in Del Mar, San Diego, California (Figure 1). The site is located on Township 14 South; Range 3 West; Section 7 (NW quarter); of the Del Mar, California USGS 7.5-minute Quadrangle (Figure 1). The Project is located approximately 0.75 miles east of Interstate 5 within the San Dieguito River watershed. The approximately 2.8-acre proposed Project site (APE) is located just east of 13885 El Camino Real and north of Rosecroft Way. Open space associated with the northern extent of Gonzales Canyon lies to the east of the Project and the San Dieguito River Park lies to the west of El Camino Real. The Project Area of Potential Effect (APE) consists of the entire 2.8-acre Project parcel (Figure 2).

The proposed Project consists of the construction of a 104,313 square-foot structure that will house an assisted living facility for the elderly with 87 assisted living units, 18 memory care units, and associated common facilities (dining room, kitchen, spa, pool, fitness center, etc.). The Project will also install a parking lot, sidewalks, patios, and landscaping around the structure.

The proposed Project would include infrastructure improvements on the parcel, including installation of utilities, a private storm drain system, a parking lot and internal walkway and roadways. City wetland habitat exists to the east of the Project footprint, but the proposed development will not encroach into the City -mandated "wetland buffer" which extends 100 feet from the boundaries of the wetland habitats. In accordance with City requirements, all drainage and stormwater runoff associated with the proposed development would be directed into a bioswale filtration basin before flowing into the City's off-site Multiple Habitat Preservation Area (MHPA) west of El Camino Real, far outside of the 100-foot wetland buffer to the east of the Project footprint.

1.2 Regulatory Context

The following section provides a summary of the applicable regulations, policies and guidelines relating to the proper management of cultural resources.

1.2.1 Cultural Resources Regulations

1.2.1.1 State Level Regulations

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." (PRC section 5020.1(j).) In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." (PRC section 5024.1(a).) The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP), enumerated below.

According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

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

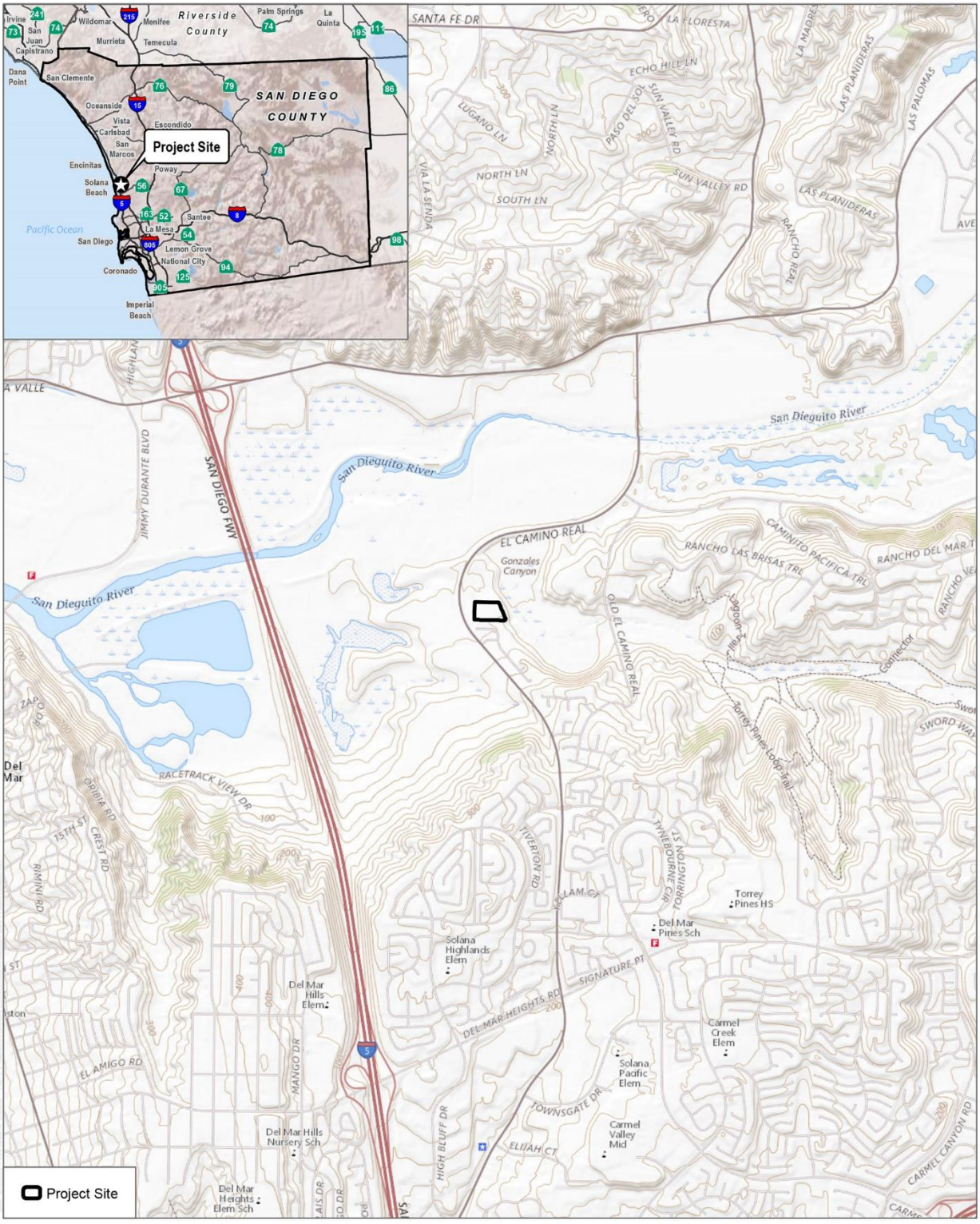
In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than fifty years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see Cal. Code Regs., tit. 14, section 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

1.2.1.2 City of San Diego Historic Resource Guidelines

The City of San Diego General Plan Programmatic Environmental Impact Report (PEIR) states the following:

> "Chapters 11, 12 and 14 of the City of San Diego Municipal Code establish the Historical resources Board (HRB) authority, appointment and terms, meeting conduct, and powers and duties; the designation process including the nomination process, noticing and report requirements, appeals, recordation, amendments or recision, and nomination of historical resources to state and national registers; and development regulations for historical resources. The purpose of these regulations is to protect, preserve, and, where damaged, restore the historical resources of San Diego. The historical resources regulations require that designated historical resources and traditional cultural properties be preserved unless deviation findings can be made by the decision maker as part of a discretionary permit. Minor alterations consistent with the U.S. Secretary of the Interior's Standards are exempt from the requirement to obtain a separate permit but must comply with the regulations and associated historical resources guidelines. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval.
>
> Historical Resources Guidelines, located in the Land Development Manual, provide property owners, the development community, consultants and the general public explicit guidance for the management of historical resources located within the City's jurisdiction. These guidelines are designed to implement the historical resources regulations and guide the development review process from the need for a survey and how impacts are assessed to available mitigation strategies and report requirements and include appropriate methodologies for treating historical resources located in the City.



SOURCE: USGS Topo Series Del Mar and Del Mar OE W Quadrangles

DUDEK 0 1,000 2,000 Feet

FIGURE 1
Project Location
El Camino Senior Housing

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SOURCE: SanGIS 2019

DUDEK 0 30 60 Feet

FIGURE 2

Area of Potential Effects (APE) Map

El Camino Senior Housing

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Any improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object may be designated a historical resource by the City's HRB if it meets one or more of the following designation criteria:

a. exemplifies or reflects special elements of the City's, a community's, or a neighborhood's, historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development;
b. is identified with persons or events significant in local, state or national history;
c. embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
d. is representative of the notable work or a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;
e. is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or
f. is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City."

According to the City's Significance Determination Thresholds (City of San Diego 2011a), impacts to historical resources would be significant if the Project would:

- Result in the alteration, including the adverse physical or aesthetic effects and/or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, object, or site
- Result in any impact to existing religious or sacred uses within the potential impact area
- Result in the disturbance of any human remains, including those interred outside of formal cemeteries.

In general, the City's historic resource guidelines build on federal and state cultural resources laws and guidelines in an attempt to streamline the process of considering impacts to cultural resources within the City's jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's guidelines. Essentially, the City's historic resource guidelines localize cultural resources laws providing local perspective on significance criteria. In order to apply the criteria and determine the significance of potential Project impacts to a cultural resource, the Area of Potential Effects (APE) of the Project must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site, or visual impairment of a historically significant viewshed related to a historic building or structure.

1.2.1.3 State Level Regulations

California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

PRC section 21083.2(g) defines "unique archaeological resource."

PRC section 21084.1 and CEQA Guidelines section 15064.5(a) defines “historical resources.” In addition, CEQA Guidelines section 15064.5(b) defines the phrase “substantial adverse change in the significance of an historical resource;” it also defines the circumstances when a Project would materially impair the significance of an historical resource.

PRC section 21074(a) defines “tribal cultural resources.”

PRC section 5097.98 and CEQA Guidelines section 15064.5(e): Set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.

PRC sections 21083.2(b)-(c) and CEQA Guidelines section 15126.4: Provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a Project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource." (PRC section 21084.1; CEQA Guidelines section 15064.5(b).) If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA. (PRC section 21084.1; CEQA Guidelines section 15064.5(a).) The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption. (PRC section 21084.1; CEQA Guidelines section 15064.5(a).)

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." (CEQA Guidelines section 15064.5(b)(1); PR Code section 5020.1(q).) In turn, the significance of an historical resource is materially impaired when a Project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the Project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- 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 California Register as determined by a lead agency for purposes of CEQA.

(CEQA Guidelines section 15064.5(b)(2).) Pursuant to these sections, the CEQA inquiry begins with evaluating whether a Project site contains any "historical resources," then evaluates whether that Project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a Project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2[a], [b], and [c]).

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

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (PRC section 21083.2(a); CEQA Guidelines section 15064.5(c)(4).) However, if a non-unique archaeological resource qualifies as tribal cultural resource (PRC 21074(c); 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC section 5097.98.

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the California Native American Heritage Commission (NAHC) within 24 hours (section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

California Coastal Act

The California Coastal Act, in part, authorizes the California Coastal Commission (CCC) to review permit applications for development within the coastal zone and, where necessary, to require reasonable mitigation measures to offset effects of that development. Permits for development are issued with "special conditions" to ensure implementation of these mitigation measures.

Section 30244 of the Act, "Archaeological or Paleontological Resources," states that:

> Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

If the CCC determines that a paleontological resource is present within an applicant's proposed Project area, they generally look for evidence that the applicant has taken the resource into consideration (e.g., through formal survey by a professional paleontologist with implementation of resulting recommendations). If a paleontological site is present, special permit conditions may range from avoidance of the site to construction monitoring and/or salvage of significant fossils. This approach virtually parallels the level of protection afforded to paleontological resources by CEQA. Additionally, the CCC relies heavily on Project sponsoring or permitting agencies to ensure compliance with CEQA (and consequently, the California Coastal Act). It is worth noting, however, the CCC permits generally post-date a Project's environmental document/determination and may not necessarily be consistent with requirements previously issued other regulatory agencies (see SER, Volume 1, Chapter 18).

Public Resources Code Section 5097.5

Section 50987.5 of the California Public Code Section states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

California Code of Regulations

Two sections of the California Code of Regulations (Title 14, Division 3, Chapter 1), applicable to lands administered by the California Department of Parks and Recreation (DPR), address paleontological resources. Section 4307 states "no person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves." Section 4309 states "the Department may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological or paleontological materials; and any person who has been properly granted such a permit shall to that extent not be liable for prosecution for violating the forgoing."

1.2.1.4 Assembly Bill 52

AB 52, which took effect July 1, 2015, establishes a consultation process between California Native American tribes and lead agencies in order to address tribal concerns regarding Project impacts and mitigation to "tribal cultural resources" (TCRs). PRC Section 21074(a) defines TCRs and states that a Project that has the potential to cause a substantial adverse change to a TCR is a Project that may have an adverse effect on the environment. A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either (1) listed or eligible for listing in the CRHR or a local register of historical resources, or (2) determined by a lead agency to be a TCR.

1.3 Project Personnel

Angela Pham, MA, served as project manager and Principal Investigator and co-authored the technical report. Scott Wolf, BS, conducted the field survey and co-authored the technical report. Red Tail Environmental Native American monitor Gabe Kitchen participated in the field survey. Dudek archaeologists Jessica Colston, BA, served as field director. Dudek archaeologist David Faith, MA, participated in the evaluation testing. Red Tail Environmental Native American monitors Justin Linton and Alisha Pico accompanied the archaeologist during the evaluation.

1.4 Report Structure

Following this introduction, a cultural and environmental context is provided for characterizing cultural resources. The cultural context includes results of the records search and Sacred Lands File search. The research design is then described followed by a review of the inventory, excavation, and laboratory methods. A description of the survey and excavation results follows. An analysis of excavated materials is then presented followed by evaluation recommendations and management considerations. Two sets of appendices (confidential and non-confidential) are attached. The non-confidential appendices are Appendix C, NAHC and Tribal Correspondence; Appendix D, Project Personnel Qualifications; Appendix E, Artifact Catalog. The confidential appendices are Appendix A, Resources in APE Location Map and DPR forms; Appendix B, SCIC Records Search Results.

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2.0 Project Context

2.1 Environmental Context

The Project is situated near the confluence of Gonzales Creek with the San Dieguito River. The southwestern portion of the Project parcel is located on a Quaternary-age terrace. The central and eastern portions of the Project are comprised of lower Quaternary-age alluvium that was deposited through siltation of a tidal estuary, and now subject to seasonal flooding along the southern side of El Camino Real Rd. All areas have been applied to agricultural uses, though the lower areas most recently.

Based on Geosoils, Inc Geotechnical testing for the area along the terrace, "colluvial soils were encountered throughout the site as a surficial, or near surface layer varying from sandy clay and clayey sand to silty sand with clay…The upper 12 inches of colluvium contained remnants of twine and plastic, and appeared to have been cultivated" (Geosoils, Inc 2011).

Disturbed soil vegetation is visible throughout the Project parcel. These areas are dominated by black mustard (*Brassica nigra*), wild radish (*Raphanus sativus*), fennel *(Foeniculum vulgare),* artichoke thistle (*Cynara cardunculus*) and various grasses. Other plant communities previously identified include coastal sage scrub, mulefat scrub, southern willow scrub, and tamarisk scrub. Common plants within these communities consist of California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* var. *foliolosum*), bush sunflower (*Encelia californica*), saltgrass (*Distichlis spicata*), arrow-weed (*Pluchea sericea*), black willow (*Salix gooddingii*) and red willow (*S. laevigata*).

Common animals within this area may include coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginica*), cottontail *(Sylvilagus audubonit),* black-tailed jackrabbit (*Lepus californicus bennettii)*, deer mouse *(Peromyscus maniculatus)* sparrow *(Melospiza melodia),* lesser goldfinch (*Cardeulis psaltria),*common yellowthroat (*Geothlypis trichas),* as well as a number of other species of birds, mammals, reptiles and amphibians.

2.2 Cultural Context

Evidence for continuous human occupation in the San Diego region spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad time frame have led to the development of several cultural chronologies; some of these are based on geologic time, most are based on temporal trends in archaeological assemblages, and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. This research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre-5500 BC), Archaic (8000 BC.–AD 500), Late Prehistoric (AD 500–1750), and Ethnohistoric (post-AD 1750).

2.2.1 Paleoindian (pre-5500 BC)

Evidence for Paleoindian occupation in coastal Southern California is tenuous, especially considering the fact that the oldest dated archaeological assemblages look nothing like the Paleoindian artifacts from the Great Basin. One of the earliest dated archaeological assemblages in coastal Southern California (excluding the Channel Islands)

derives from SDI-4669/W-12, in La Jolla. A human burial from SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (95.4% probability) (Hector 2007). The burial is part of a larger site complex that contained more than 29 human burials associated with an assemblage that fits the Archaic profile (i.e., large amounts of groundstone, battered cobbles, and expedient flake tools). In contrast, typical Paleoindian assemblages include large stemmed Projectile points, high proportions of formal lithic tools, bifacial lithic reduction strategies, and relatively small proportions of groundstone tools. Prime examples of this pattern are sites that were studied by Emma Lou Davis (1978) on China Lake Naval Air Weapons Station near Ridgecrest, California. These sites contained fluted and unfluted stemmed points and large numbers of formal flake tools (e.g., shaped scrapers, blades). Other typical Paleoindian sites include the Komodo site (MNO-679)—a multicomponent fluted point site, and MNO-680—a single component Great Basined Stemmed point site (Basgall et al. 2000). At MNO-679 and MNO-680, groundstone tools were rare while finely made Projectile points were common.

Turning back to coastal Southern California, the fact that some of the earliest dated assemblages are dominated by processing tools runs counter to traditional notions of mobile hunter–gatherers traversing the landscape for highly valued prey. Evidence for the latter—that is, typical Paleoindian assemblages—may have been located along the coastal margin at one time, prior to glacial desiccation and a rapid rise in sea level during the early Holocene (pre-7500 BP) that submerged as much as 1.8 kilometer of the San Diego coastline. If this were true, however, it would also be expected that such sites would be located on older landforms near the current coastline. Some sites, such as SDI-210 along Agua Hedionda Lagoon, contained stemmed points similar in form to Silver Lake and Lake Mojave Projectile points (pre-8000 BP) that are commonly found at sites in California's high desert (Basgall and Hall 1990). SDI-210 yielded one corrected radiocarbon date of 8520–9520 BP (Warren et al. 2004). However, sites of this nature are extremely rare and cannot be separated from large numbers of milling tools that intermingle with old Projectile point forms.

Warren et al. (2004) claimed that a biface manufacturing tradition present at the Harris site complex (SDI-149) is representative of typical Paleoindian occupation in the San Diego region that possibly dates between 10,365 and 8200 BC (Warren et al. 2004, p. 26). Termed San Dieguito (Rogers 1945), assemblages at the Harris site are qualitatively distinct from most others in the San Diego region because the site has large numbers of finely made bifaces (including Projectile points), formal flake tools, a biface reduction trajectory, and relatively small amounts of processing tools (Warren 1964, 1968). Despite the unique assemblage composition, the definition of San Dieguito as a separate cultural tradition is hotly debated. Gallegos (1987) suggested that the San Dieguito pattern is simply an inland manifestation of a broader economic pattern. Gallegos' interpretation of San Dieguito has been widely accepted in recent years, in part because of the difficulty in distinguishing San Dieguito components from other assemblage constituents. In other words, it is easier to ignore San Dieguito as a distinct socioeconomic pattern than it is to draw it out of mixed assemblages.

The large number of finished bifaces (i.e., Projectile points and non-Projectile blades), along with large numbers of formal flake tools at the Harris site complex, is very different than nearly all other assemblages throughout the San Diego region, regardless of age. Warren et al. (2004) made this point, tabulating basic assemblage constituents for key early-Holocene sites. Producing finely made bifaces and formal flake tools implies that relatively large amounts of time were spent for tool manufacture. Such a strategy contrasts with the expedient flake-based tools and cobble-core reduction strategy that typifies non-San Dieguito Archaic sites. It can be inferred from the uniquely high degree of San Dieguito assemblage formality that the Harris site complex represents a distinct economic strategy from non-San Dieguito assemblages.

If San Dieguito truly represents a distinct socioeconomic strategy from the non-San Dieguito Archaic processing regime, its rarity implies that it was not only short-lived, but that it was not as economically successful as the Archaic strategy. Such a conclusion would fit with other trends in southern California deserts, wherein hunting-related tools are replaced by processing tools during the early Holocene (Basgall and Hall 1993).

2.2.2 Archaic (8000 BC–AD 500)

The more than 1500-year overlap between the presumed age of Paleoindian occupations and the Archaic period highlights the difficulty in defining a cultural chronology in the San Diego region. If San Dieguito is the only recognized Paleoindian component in the San Diego region, then the dominance of hunting tools implies that it derives from Great Basin adaptive strategies and is not necessarily a local adaptation. Warren et al. (2004) admitted as much, citing strong desert connections with San Dieguito. Thus, the Archaic pattern is the earliest local socioeconomic adaptation in the San Diego region (Hale 2001, 2009).

The Archaic pattern is relatively easy to define with assemblages that consist primarily of processing tools: millingstones, handstones, battered cobbles, heavy crude scrapers, incipient flake-based tools, and cobble-core reduction. These assemblages occur in all environments across the San Diego region, with little variability in tool composition. Low assemblage variability over time and space among Archaic sites has been equated with cultural conservatism (Byrd and Reddy 2002; Warren 1968; Warren et al. 2004). Despite enormous amounts of archaeological work at Archaic sites, little change in assemblage composition occurs until the bow and arrow is adopted at around AD 500, as well as ceramics at approximately the same time (Griset 1996; Hale 2009). Even then, assemblage formality remains low. After the bow is adopted, small arrow points appear in large quantities and already low amounts of formal flake tools are replaced by increasing amounts of expedient flake tools. Similarly, shaped millingstones and handstones decrease in proportion relative to expedient, unshaped groundstone tools (Hale 2009). Thus, the terminus of the Archaic period is equally as hard to define as its beginning because basic assemblage constituents and patterns of manufacturing investment remain stable, complimented only by the addition of the bow and ceramics.

2.2.3 Late Prehistoric (AD 500–1750)

The period of time following the Archaic and prior to Ethnohistoric times (AD 1750) is commonly referred to as the Late Prehistoric (M. Rogers 1945; Wallace 1955; Warren et al. 2004). However, several other subdivisions continue to be used to describe various shifts in assemblage composition, including the addition of ceramics and cremation practices. In northern San Diego County, the post-AD 1450 period is called the San Luis Rey Complex (True 1978), while the same period in southern San Diego County is called the Cuyamaca Complex and is thought to extend from AD 500 until Ethnohistoric times (Meighan 1959). Rogers (1929) also subdivided the last 1,000 years into the Yuman II and III cultures, based on the distribution of ceramics. Despite these regional complexes, each is defined by the addition of arrow points and ceramics, and the widespread use of bedrock mortars. Vagaries in the appearance of the bow and arrow and ceramics make the temporal resolution of the San Luis Rey and Cuyamaca complexes difficult. For this reason, the term Late Prehistoric is well-suited to describe the last 1,500 years of prehistory in the San Diego region.

Temporal trends in socioeconomic adaptations during the Late Prehistoric period are poorly understood. This is partly due to the fact that the fundamental Late Prehistoric assemblage is very similar to the Archaic pattern, but includes arrow points and large quantities of fine debitage from producing arrow points, ceramics, and cremations. The appearance of mortars and pestles is difficult to place in time because most mortars are on

bedrock surfaces; bowl mortars are actually rare in the San Diego region. Some argue that the Ethnohistoric intensive acorn economy extends as far back as AD 500 (Bean and Shipek 1978). However, there is no substantial evidence that reliance on acorns, and the accompanying use of mortars and pestles, occurred prior to AD 1400. True (1980) argued that acorn processing and ceramic use in the northern San Diego region did not occur until the San Luis Rey pattern emerged after approximately AD 1450. For southern San Diego County, the picture is less clear. The Cuyamaca Complex is the southern counterpart to the San Luis Rey pattern, however, and is most recognizable after AD 1450 (Hector 1984). Similar to True (1980), Hale (2009) argued that an acorn economy did not appear in the southern San Diego region until just prior to Ethnohistoric times, and that when it did occur, a major shift in social organization followed.

2.2.4 Ethnohistoric (post-AD 1750)

The history of the Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the San Diego region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered cultural groups. The establishment of the missions in the San Diego region brought more extensive documentation of Native American communities, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century (Boscana 1846; Fages 1937; Geiger and Meighan 1976; Harrington 1934; Laylander 2000). The principal intent of these researchers was to record the precontact, culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as "salvage ethnography," was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his "memory culture" approach (Lightfoot 2005, p. 32) by recording languages and oral histories within the San Diego region. Kroeber's 1925 assessment of the impacts of Spanish missionization on local Native American populations supported Kumeyaay traditional cultural continuity (Kroeber 1925, p. 711):

> San Diego was the first mission founded in upper California; but the geographical limits of its influence were the narrowest of any, and its effects on the natives comparatively light. There seem to be two reasons for this: first, the stubbornly resisting temper of the natives; and second, a failure of the rigorous concentration policy enforced elsewhere.

In some ways this interpretation led to the belief that many California Native American groups simply escaped the harmful effects of contact and colonization all together. This, of course, is untrue. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early twentieth century seemed to indicate that traditional cultural practices and beliefs survived among local Native American communities. These accounts supported, and were supported by, previous governmental decisions which made San Diego County the location of more federally recognized tribes than anywhere else in the United States: 18 tribes on 18 reservations that cover more than 116,000 acres (CSP 2009).

The traditional cultural boundaries between the Luiseño and Kumeyaay Native American tribal groups have been well defined by anthropologist Florence C. Shipek:

> In 1769, the Kumeyaay national territory started at the coast about 100 miles south of the Mexican border (below Santo Tomas), thence north to the coast at the drainage divide south of the San Luis Rey River including its tributaries. Using the U.S. Geological Survey topographic maps, the boundary with the Luiseño then follows that divide inland. The boundary continues on the divide separating Valley Center from Escondido and then up along Bear Ridge to the 2240 contour line and then north across the divide between Valley Center and Woods Valley up to the 1880-foot peak, then curving around east along the divide above Woods Valley. [1993 summarized by the San Diego County Board of Supervisors 2007:6]

Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006, p. 34). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007, p. 71). As the Project area is located approximately 30 km south of the San Luis Rey River, the Native American inhabitants of the region spoke using the Ipai language subgroup of the Yuman language group. Ipai and Tipai, spoken respectively by the northern and southern Kumeyaay communities, are mutually intelligible. For this reason, these two are often treated as dialects of a larger Kumeyaay tribal group rather than as distinctive languages, though this has been debated (Luomala 1978; Laylander 2010).

Victor Golla has contended that one can interpret the amount of variability within specific language groups as being associated with the relative "time depth" of the speaking populations (Golla 2007, p. 80) A large amount of variation within the language of a group represents a greater time depth then a group's language with less internal diversity. One method that he has employed is by drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla has observed that the "absolute chronology of the internal diversification within a language family" can be correlated with archaeological dates (2007, p. 71). This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences.

Golla suggested that there are two language families associated with Native American groups who traditionally lived throughout the San Diego County region. The northern San Diego tribes have traditionally spoken Takic languages that may be assigned to the larger Uto–Aztecan family (Golla 2007, p. 74). These groups include the Luiseño, Cupeño, and Cahuilla. Golla has interpreted the amount of internal diversity within these language-speaking communities to reflect a time depth of 2,000 years. Other researchers have contended that Takic may have diverged from Uto–Aztecan ca. 2600 approximately BC–AD 1, which was later followed by the diversification within the Takic speaking San Diego tribes, occurring approximately 1500 BC–AD 1000 (Laylander 2010). The majority of Native American tribal groups in southern San Diego region have traditionally spoken Yuman languages, a subgroup of the Hokan Phylum. Golla has suggested that the time depth of Hokan is approximately 8,000 years (Golla 2007, p. 74). The Kumeyaay tribal communities share a common language group with the Cocopa, Quechan, Maricopa, Mojave, and others to east, and the Kiliwa to the south. The time depth for both the Ipai (north of the San Diego River, from Escondido to Lake Henshaw) and the Tipai (south of the San Diego River, the Laguna Mountains through Ensenada) is approximated to be 2,000 years at the most. Laylander has contended that previous research indicates a divergence between Ipai and Tipai to have occurred approximately AD 600–1200 (Laylander 1985). Despite the distinct linguistic differences between the Takic-speaking tribes to the north, the Ipai-speaking communities in central San Diego, and the Tipai southern Kumeyaay, attempts to illustrate the distinctions between these groups based solely on cultural material alone have had only limited success (Pigniolo 2004; True 1966).

The Kumeyaay generally lived in smaller family subgroups that would inhabit two or more locations over the course of the year. While less common, there is sufficient evidence that there were also permanently occupied villages, and that some members may have remained at these locations throughout the year (Owen 1965; Shipek 1982; Shipek 1985; Spier 1923). Each autonomous triblet was internally socially stratified, commonly including higher status individuals such as a tribal head (Kwaaypay), shaman (Kuseyaay), and general members with various responsibilities and skills (Shipek 1982). Higher-status individuals tended to have greater rights to land resources, and owned more goods, such as shell money and beads, decorative items, and clothing. To some degree, titles were passed along family lines; however, tangible goods were generally ceremonially burned or destroyed following the deaths of their owners (Luomala 1978). Remains were cremated over a pyre and then relocated to a cremation ceramic vessel that was placed in a removed or hidden location. A broken metate was commonly placed at the location of the cremated remains, with the intent of providing aid and further use after death. At maturity, tribal members often left to other bands in order to find a partner. The families formed networks of communication and exchange around such partnerships.

Areas or regions, identified by known physical landmarks, could be recognized as band-specific territories that might be violently defended against use by other members of the Kumeyaay. Other areas or resources, such as water sources and other locations that were rich in natural resources, were generally understood as communal land to be shared amongst all the Kumeyaay (Loumala 1978). The coastal Kumeyaay exchanged a number of local goods, such as seafood, coastal plants, and various types of shell for items including acorns, agave, mesquite beans, gourds, and other more interior plants of use (Luomala 1978). Shellfish would have been procured from three primary environments, including the sandy open coast, bay and lagoon, and rocky open coast. The availability of these marine resources changed with the rising sea levels, siltation of lagoon and bay environments, changing climatic conditions, and intensity of use by humans and animals (Gallegos and Kyle 1988; Pigniolo 2005; Warren and Pavesic 1963). Shellfish from sandy environments included *Donax*, *Saxidomas*, *Tivela*, and others. Rocky coast shellfish dietary contributions consisted of *Pseudochama*, *Megastraea*, *Saxidomus*, *Protothaca*, *Megathura*, and others. Lastly, the bay environment in the immediate vicinity of the Project area would have provided *Argopecten*, *Chione*, *Ostrea*, *Neverita*, *Macoma*, *Tagelus*, and others. While marine resources were obviously consumed, terrestrial animals and other resources likely provided a large portion of sustenance. Game animals consisted of rabbits, hares (*Leporidae*), birds, ground squirrels, woodrats (*Neotoma*), deer, bears, mountain lions (*Puma concolor*), bobcats (*Lynx rufus)*, coyotes (*Canus latrans*), and others. In lesser numbers, reptiles and amphibians may have been consumed.

A number of local plants were used for food and medicine. These were exploited seasonally, and were both traded between regional groups and gathered as a single triblet moved between habitation areas. Some of the more common of these that might have been procured locally or as higher elevation varieties would have included buckwheat (*Eriogonum fasciculatum*), *Agave*, *Yucca*, lemonade berry (*Rhus integrifolia*), sugar brush (*Rhus ovata*), sage scrub (*Artemisia californica*), yerba santa (*Eriodictyon*), sage (*Salvia*), *Ephedra*, prickly pear (*Opuntia*), mulefat (*Baccharis salicifolia*), chamise (*Adenostoma fasciculatum*), elderberry (*Sambucus nigra*), oak (*Quercus*), willow (Salix), and *Juncus* grass among many others (Wilken 2012).

2.2.5 The Historic Period (post-AD 1542)

European activity in the region began as early as AD 1542, when Juan Rodríguez Cabrillo landed in San Diego Bay. Sebastián Vizcaíno returned in 1602, and it is possible that there were subsequent contacts that went unrecorded. These brief encounters made the local native people aware of the existence of other cultures that were technologically more complex than their own. Epidemic diseases may also have been introduced into the region at

an early date, either by direct contacts with the infrequent European visitors or through waves of diffusion emanating from native peoples farther to the east or south (Preston 2002). It is possible, but as yet unproven, that the precipitous demographic decline of native peoples had already begun prior to the arrival of Gaspar de Portolá and Junípero Serra in 1769.

Spanish colonial settlement was initiated in 1769, when multiple expeditions arrived in San Diego by land and sea, and then continued northward through the coastal plain toward Monterey. A military presidio and a mission to deal with the local Kumeyaay and Ipai were soon firmly established at San Diego, despite violent resistance to them from a coalition of native communities in 1776. Private ranchos subsequently established by Spanish and Mexican soldiers, as well as other non-natives, appropriated much of the remaining coastal or near-coastal locations (Pourade 1960–1967).

Mexico's separation from the Spanish empire in 1821 and the secularization of the California missions in the 1830s caused further disruptions to native populations in western San Diego County. Some former mission neophytes were absorbed into the work forces on the ranchos, while others drifted toward the urban centers at San Diego and Los Angeles or moved to the eastern portions of the county where they were able to join still largely autonomous native communities. United States conquest and annexation, together with the gold rush in Northern California, brought many additional outsiders into the region. Development during the following decades was fitful, undergoing cycles of boom and bust. With rising populations in the nineteenth century throughout the Southern California region, there were increased demands for important commodities such as salt.

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3.0 Research Design

Prehistoric sites vary in complexity and duration of use, and both social and natural factors contribute to the formation and composition of their deposits. The nature of site occupation (e.g., food procurement and/or processing, other types of resource procurement, social events, and short-term or seasonal occupation) can lead to spatial patterning of artifacts, food remains, and site features.

Post-depositional processes can alter the character of prehistoric sites. Bioturbation, erosion, alluvial deposition, and historic and modern land use can affect the integrity of prehistoric archaeological sites. These disturbances complicate archaeological interpretation, particularly of complex, multicomponent sites. To the extent that site integrity enhances or deflates the interpretive potential of a cultural deposit, it may contribute to or detract from its scientific value:

- Do inclusive chronometric data from project sites permit the identification and definition of temporally and/or spatially discrete prehistoric occupations?
- Are the definitions of discrete components supported by multiple, independent chronological controls, and if so, how similar are their age estimates?
- Is there substantial evidence of occupational "overprinting"? How has this affected the temporal integrity of habitation components or refuse deposits?
- What kinds of impacts are affecting or have affected sites in different parts of the study area, and how extensive are they?
- Have adverse impacts affected the data potential of each evaluated site?

3.1 Chronology and Dating

Chronological issues are basic to any archaeological research design, as they provide the primary framework of prehistory. Previous research in the southern San Diego region has documented a range of prehistoric sites dating to both the Archaic (6000 BC to AD 500) and Late Prehistoric periods (post-AD 500). To the southeast near Jamul, Yohe and Chace (1995) documented a late-La Jollan (i.e., Millingstone) deposit dominated by millingstones, handstones, cobble tools, and other items. In the eastern foothills and valley floors near Otay Mesa, a strong record that postdates AD 1000 has been documented (McDonald et al. 1993; Hale 2009). In all, sites that date to the last 1,000 years can have assemblages with large numbers of arrow points, small flake-based tools, and ceramics, but also include sizeable amounts of millingstones and handstones relative to mortars and pestles. The distribution of such artifacts is uneven at many sites in the southern San Diego region and there may be temporal patterning in how sites were occupied, leaving differential traces of assemblage constituents. Along these lines, potential research issues derived from this basic problem include the following:

- How did the transition from the Archaic period to the Late Prehistoric period occur?

This transition was characterized by shifts in food storage and cooking technology with the inception of ceramics, and possibly by a shift in hunting technology with the addition of the bow and arrow. These shifts did not occur simultaneously (McDonald et al. 1993), and their implications for local population expansion in the Late Prehistoric period are unknown.

- Was there a shift in emphasis of acorn use during the Late Prehistoric period?

The mortar and pestle appear to have been added to the repertoire of food processing tools during the Late Prehistoric period, but only in small numbers. Is there evidence for earlier use of bedrock mortars? Is the addition of the mortar and pestle correlated to the inception of ceramics in the region and/or intensified use of a particular resource?

Because chronological controls are essential to any archaeological investigation, several other basic questions concerning the temporal data potential of evaluated sites pertain to the current study, including the following:

- Can the chronological placement of project sites be determined?
- What kinds of chronometric data can project sites provide? Of those obtained, how well do they correlate in terms of the age estimates they provide (e.g., projectile point types versus obsidian hydration dates).
- Do marker artifacts appear to fit with temporal patterns recognized in the surrounding region? Are there any unique, temporally diagnostic items present?
- Can chronometric data from project sites help to refine dating schemes in the local region?

The possibility that cultural deposits from project sites are related to occupation of the ethnographic village of La Punta makes these questions even more important. The presence of aboriginal ceramics is often taken as a signal of post-AD 1400 occupation (Hale 2009) but ceramics have been in use in southern San Diego County for most of the last 1,500 years. Thus, the presence of ceramics at the current set of project sites does not necessarily mean that they derive from an ethnohistoric occupation identified by the Spanish in 1782. As such, evaluation of the project sites must corroborate time-sensitive artifacts with radiocarbon dates in strong stratigraphic contexts.

3.2 Settlement and Site Function

The Late Prehistoric is a time when significant shifts in settlement and subsistence may have occurred. While several important prehistoric sites and ethnohistoric villages are known for the local area, the character of settlement and subsistence shifts has not been fully explored. A key variable in understanding social organization during this time is to determine the kinds of socioeconomic shifts that occurred after adoption of the bow and arrow and the subsequent widespread use of ceramics. The current set of project sites may have the potential to generate important data for addressing this issue, particularly the presence of arrow points and abundant amounts of pottery. Specific data requirements include information on arrow-point manufacture, general patterns of lithic reduction, and raw material use—including exotic stone. Was arrow-point production occurring at sites in the project area, or were they discarded in exhausted condition? What does the debitage assemblage imply about the production and/or maintenance of stone tools at project sites?

Information on ceramic vessel form, function, and the diversity therein is also critical for determining whether residential occupation was brief or prolonged. How many kinds of vessels are indicated in the assemblage and for what purposes were they used? The latter is particularly important for understanding intensification in the exploitation of plant foods (Eerkens 2001). Is there evidence, in the form of clay daub and other manufacturing tools, that clay vessels were being manufactured at sites in the project area? Can food residues be obtained from ceramic artifacts recovered during evaluation?

The manufacture and use of groundstone implements can help clarify the nature of site occupation and settlement duration. Shaping of handstones and pestles can be an indication that populations are somewhat mobile, implying use in off-site contexts—the idea being that shaping can reduce mass thereby reducing transport costs (Hale 2001).

The term "village" evokes a sense of residential permanency, and, if a site is assumed to be a village, such an assumption can predicate the kinds of questions asked during an archaeological investigation. Alternatively, an investigation can test the assumption by asking questions about the archaeological record. If the project sites are related to permanent village occupation, what is the subsistence toolkit expected to look like, given that stone raw material is not very abundant in the immediately available riverine deposits? Additionally, what is the faunal and floral profile expected to look like for a relatively permanent settlement of people? These are questions that can and should be developed and addressed during an evaluation.

3.3 Subsistence

Subsistence orientation and settlement patterns are interwoven and dependent on the availability of resources, together creating a system of decisions regarding settlement locations, desired faunal and vegetal resources, seasonal movements, food processing techniques, and storage habits. Subsistence strategies of the Kumeyaay have been described as bipolar, but dependent upon where the lineage home area was located. In reality though, most subsistence strategies were much more complex, and can be described as systems of "fission and fusion." In such a system, what is expected of subsistence during periods of fusion, when multiple families congregate in a common area, as may be the case for the current project sites? Are resources pooled among families, or is there evidence of privatization in the form of cache pits or storage containers within individual habitations?

Milling implements are common across San Diego County, and both macroscopic and microscopic vegetal remains (primarily seeds) may be present as residues on these kinds of tools and in the site matrix. Several questions that can be addressed using data from project sites are: What vegetal and faunal remains are present? How specialized was the subsistence strategy (i.e., were any species a focus of exploitation)? In particular, what role did acorns play versus small seeds and tubers or fish? What types of "exotic" food resources are present? Can seasonal and/or diachronic changes be discerned in the subsistence emphasis? If diachronic change is detected, can this be related to technological changes such as the introduction of ceramics, arrow points, and the mortar and pestle?

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4.0 Archival Methods and Results

4.1 Archival Research

Dudek consulted historic maps and aerial photographs to understand development of the Project APE and surrounding properties. Historic aerial photographs of the Project APE were available for 1953, 1964, 1966, 1967, 1980, 1983, 1986, 1987,1989, 1990, 1991, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2002, 2003, 2005, 2009, 2010, 2012, 2014, and 2016 (NETR 2020). The historic photographs show that the Project APE has remained undeveloped in 1953. The 1964 to 1986 historic aerials reveals a structure located within the southeastern corner of the Project APE and that area has been graded, likely related to agricultural activities. No other standing structures are located within the Project APE. El Camino Real is developed by 1987 to the west of the APE. Historic photographs from 1988 to 1999 do not reveal any changes to the APE. The 2002 photograph reveals housing development activity immediately south of the Project APE. Between 2003 and 2005, the housing development to the south of the APE is completed. By 2009, a parking lot, landscaping, and a "L" large structure is developed to the west of the APE. The 2010 photograph reveals that the structure that was located within the southeastern corner of the Project APE is no longer extant. The 2012 photograph does not reveal any changes to the Project APE. By 2014, several structures, likely St. Garabed Church, appear to the east of the Project APE. The 2016 photograph does not reveal any changes to the Project APE. No historic structures are located within the Project APE. The historic aerials reveal that the Project APE and the surrounding area has maintained the same structures and street and freeway layout since 2014.

Dudek also reviewed ~~H~~historic topographic (topo) maps (available from 1903) for the Project APE. The topo ~~do~~maps do not reveal any historic structures ~~within~~located within the APE (NETR 2020).

4.2 Records Search

South Coastal Information Center (SCIC) staff conducted a records search for the proposed Project APE and a surrounding one-mile search radius on December 07, 2020. The records search results indicate that 137 previous cultural resources studies have been conducted within one- mile of the Project APE. Of the 137 studies, 17 intersect the Project APE and are listed in Table 4.1 below. These studies include 13 cultural resource inventories, an Environmental Impact Report (EIR), a Mitigated Negative Declaration (MND), and two archaeological evaluation reports. Based on the previous studies, the entire Project APE has been studied. The studies not listed in Table 4.1 are included in Confidential Appendix A. Pertinent studies to this current Project will be discussed in the next section below.

Table 4.1. Previous Technical Studies within the Project APE

Report Number	Authors	Date	Title
SD-00312	Cardenas, Sean R.	1986	*Cultural Resource Assessment: El Camino Real Realignment Right-of-Way; EQD N.84-0636*
SD-00672	Gallegos, Dennis, Roxana Phillips, and Andrew Pigniolo	1988	*A Cultural Resource Overview for the San Dieguito River Valley San Diego, California.*

Table 4.1. Previous Technical Studies within the Project APE

Report Number	Authors	Date	Title
SD-02003	RBR & Associates, Inc.	1984	*A Cultural Resources Inventory for the El Camino Real Extension Alignment Study, EQD No. 84-0636*
SD-07180	City of San Diego	1999	*Public Notice of a Proposed Mitigated Negative Declaration Nobel Research Park*
SD-07675	Pierson, Larry	2000	*An Archaeological Survey of the Evangelical Formosa Church Project; 14900 El Camino Real, San Diego, California, 92130*
SD-08929	Pierson, Larry	2003	*An Archaeological Survey of the Evangelical Formosa Church Project*
SD-09361	Byrd, Brian F and Collin O'Neill	2002	*Archaeological Survey Report for the Phase I Archaeological Survey along Interstate 5 San Diego County, CA.*
SD-11364	Hector, Susan, Drew Pallete, and Mark Becker	2005	*Archaeological Evaluation of the Rancho Valley Farms Project Maritime Resource Exploration in the Lower San Dieguito River Valley*
SD-11623	Hector, Susan and Alice Brewster	2002	*San Dieguito River Valley Inventory of Archaeological Resources*
SD-11811	Price Harry, and Jackson Underwood	2007	*Results of a Cultural Resources Survey for the River Park Equestrian Center in Del Mar, San Diego, California*
SD-12155	Robbins-Wade, Mary	2009	*Archaeological Monitoring: Pump Sation79 Force Main, San Diego, Ca*
SD-12279	Mock, Kevin, Mike Kelly, and Shelby Gunderman	2008	*Archaeological Survey Report Cavallo Farms Improvement Project, City of San Diego, San Diego County, California*
SD-12817	Bowden-Renna, Cheryl	2010	*Cultural Resources Survey for 57 Wood to Steel Pole Undergrounding and Pole replacements long TL 667 and TL 610 and Staging Yard Area, Del Mar area of San Diego County, California.*
SD-14739	City of San Diego	2014	*St. Garabed Church Project, San Diego, Ca, Draft Environmental Impact Report*
SD-17135	Cordova, Isabel	2015	*Archaeological Survey for Pole Brushing Project, Various Locations, San Diego County, California*
SD-17152	Giacinto, Adam and Micah Hale	2013	*Cultural and Paleontological Resources Survey Report for the St. John Garabed Church Project, San Diego County, California*
SD-17153	Dunn, Joshua, Micah Hale, Nicholas Hanten, and Brad Comeau	2013	*Phase II Archaeological Evaluation of CA-SDI-20031 for the St. Garabed Church Project, San Diego County, California*

SCIC records identified one previously recorded prehistoric cultural resource, CA-SDI-687, within the Project APE (Table 4.2). CA-SDI-687 intersects the southeastern portion of the Project APE. A total of 84 previously recorded cultural resources are located within the one-mile search radius (Confidential Appendix A). No historic addresses are located within the project APE. A complete list of all the previously recorded cultural resources are included in Confidential Appendix A. No historic addresses are located within the APE or the one- mile search radius.

Table 4.2. Previous Technical Studies within the Project APE

Trinomial	P Number	Age	Description	Eligibility
CA-SDI-687	P-37-000687	Prehistoric	Archaic Period Habitation Site	Potentially Eligible

4.2.1 CA-SDI-687

CA-SDI-687 is located just within the southeastern corner of the Project APE. It was first recorded by C. N. Warren in 1960 as an Archaic Period habitation site. He recorded the resource as a scatter of artifacts measuring 300 feet in diameter, with midden soil the eastern edge. Testing was conducted by RBR and Associates both in 1984 and 1986, the later for the El Camino Real Realignment Project. RECON Environmental conducted an evaluation of the site in 1991. They returned to conduct a "focused data recovery" of the portion of the site within the direct impact area of the housing development to the south of the current Project APE in 2001 (Price and Underwood 2007). Two radiocarbon samples yielded uncorrected dates of 7,670 years BP +/- 50 and 7,380 years BP +/- 70. During the grading for the residential development in 2001, three Archaic Period inhumations were found, along with several cobble features. CA-SDI-7294 was subsumed within CA-SDI-687. An open space easement was created around a portion of this site.

In 2007 RECON Environmental noted that the northern portion of the site had been substantially impacted by a horse training facility, and may have originally extended into the study area. These archaeologists did not observe any cultural material within the portion of the recorded boundary for this site that intersects the current Project APE. Archaeologists did record one isolated lithic percussor just north of the recorded site boundary, within the Project area. Additionally, a scatter of imported marine shell and a handstone were observed along the northern slope of the terrace, 600 feet to the north. Price and underwood have suggested that this scatter (CA-SDI-20031) may be a secondary deposit from the CA-SDI-687 site area. RECON recommended archaeological testing for CA-SDI-687.

In 2012 and 2013 Dudek conducted a survey of the northern portion of CA-SDI-687 as part of the St. Garabed Church Project, located immediately north of the current Project APE (Giacinto and Hale 2012). Dudek archaeologist observed that the equestrian center activities appeared to have removed any artifacts that may have originally been present on the site surface. While the surface of the site's recorded boundary has been substantially disturbed, assuming the accuracy of the initial recordation by Claude Warren and later studies, there is potential for additional subsurface deposits (Giacinto and Hale 2012).

4.3 NAHC Sacred Lands File Search

DUDEK requested a NAHC search of their Sacred Lands File (SLF) on December 11, 2020 for the proposed Project APE. The NAHC provided results on December 29, 2020. This search did not indicate the presence of Native American traditional cultural place(s) within this area (Confidential Appendix D). The NAHC additionally provided a list of Native American tribes and individuals/organizations that might have knowledge of cultural resources in or near the Project APE.

4.4 Tribal Correspondence

Following the NAHC response, letters were sent on January 5, 2021 to the listed tribal representatives with the intent of requesting information, opinions or concerns relating to the proposed Project impacts (Appendix C). These letters contained a brief description of the planned Project, reference maps, and a summary of the NAHC SLF and SCIC search results. To date, no information regarding traditional cultural places has since been provided, with no additional correspondence with Native American representatives. Any responses received by Dudek will be forwarded to the City.

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5.0 Methods

5.1 Survey

The current Phase I cultural survey methods can be classified as an intensive pedestrian survey, applying short interval transect spacing and full documentation of cultural resources. Archaeological survey staff exceeded the applicable Secretary of Interior Professional Qualifications Standards for archaeological survey and evaluation. The Project APE of potential effect (APE) was subject to a 100% survey with transects spaced no more than 15 meters apart and oriented in cardinal directions. All cultural resources identified through the records search and during the survey were recorded using a Global Positioning System (GPS) receiver with sub-meter accuracy, recording, at a minimum, the horizontal extents of the resource (i.e., site boundary), a sample of surface artifacts, cultural features, and any notable landform features within or adjacent to the site limits. Evidence for buried cultural deposits was opportunistically sought through inspection of natural or artificial erosion exposures and the spoils from rodent burrows. No artifacts were collected during the survey. Field recording and photo documentation of artifacts, as appropriate, was completed.

Documentation of cultural resources complied with the Office of Historic Preservation (OHP) and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740), and the California Office of Historic Preservation Planning Bulletin Number 4(a), December 1989, Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (ARMR Guidelines) for the Preparation and Review of Archaeological Reports. All prehistoric and historic sites identified during this inventory were recorded on California Department of Parks and Recreation Form DPR 523 (Series 1/95), using the Instructions for Recording Historical Resources (Office of Historic Preservation 1995).

During the recent survey, very little vegetation existed to obscure the ground surface throughout the majority of the Project APE. The previously disturbed sediments and light vegetation throughout the primary construction footprint, located on the terrace within the APE, allowed for excellent (90-100%) visibility of the ground. The sediments observed consists of a brown compact alluvial clay loam. The survey was conducted by Dudek archaeologist Scott Wolf on December 22, 2021. Red Tail Environmental Native American monitor Gabe Kitchen accompanied Mr. Wolf during the survey.

5.2 Evaluation

The Phase II evaluation for the El Camino Senior Housing Project was conducted for a portion of CA-SDI-687 that intersects the Project APE by Dudek. The archaeological field evaluations were conducted by Dudek archaeologists Jessica Colston and David Faith from March 17 and 18, 2021. Red Tail Environmental Native American monitors present were Justin Linton and Alisha Pico.

The methods used during this archaeological evaluation have been designed according to methods and procedures developed by Dudek and others over many years of archaeological study in southern California, and they comply with federal and state guidelines regarding cultural resource evaluations and eligibility recommendations (Giambastiani and Basgall 2000; Hale and Becker 2006; Hale and Comeau 2010; Schaefer 1994, 2000a, 2000b). Evaluation methods are essentially sampling methods geared toward recovering a reasonable-sized assemblage to

estimate the density and diversity of the cultural deposit, and to expose enough of the site deposit to determine integrity. A general approach is described below.

The first step in each site evaluation was to re-locate artifact concentrations, features, and landforms as described in the original site forms and inventory letter report. Each site was then subjected to an intensive surface survey with regular-interval sweeps of the site surface, and pin-flagging of artifacts, concentrations, and features to confirm the originally mapped items and site boundaries. After the site was defined with pin-flags, the artifacts were collected and their positions were recorded with a decimeter-accurate Trimble GPS unit and an iPad equipped with georeferenced proposed Project maps.

Concentrations or areas where artifact density was relatively higher than other portions of the site were mapped and collected separately from any artifacts and materials collected at a non-specific site.

Two types of units were used for field evaluations for the Proposed Project. All units were excavated with square corners to enable their expansion to more thoroughly explore deposits. Shovel test pits (STPs) are small; 0.5 x 0.25 m exploratory units excavated in 20-centimeter (cm) increments to depths of no more than 40–60 cm if the unit is sterile (i.e., no artifacts or subsurface deposits are encountered) and typically spaced at 10 to 20 m intervals or subjectively placed. STPs are typically used to explore the edges of cultural deposits, providing a positive-negative indication with little reliability in terms of estimating depth of cultural deposits or integrity. If substantial quantities of artifacts are uncovered and identified during STP excavation, a 1 x 1 m control unit (CU) would be used to explore the feature. CUs would typically be excavated in standard 10-cm levels.

Ten STPs and one CU were utilized for CA-SDI-687. All excavated matrix was screened through 1/8-in (3-mm) mesh. Sediment profiles from STPs were recorded and photographed where appropriate, with small sediment samples taken for Munsell color and constituent classification.

Photographs of each unit profile were recorded to documented soils and disturbances. A Trimble GeoXT-6000 GPS unit was used to record the locations of excavation units. Field notes were recorded on standardized forms to log artifact recovery, soil descriptions, disturbances, and any other pertinent information.

5.3 Laboratory and Cataloging Procedures

Initial laboratory procedures included cleaning (as appropriate), sorting, and cataloging of all artifacts and ecofacts. Each item was individually examined and cataloged according to class, subclass, and material; counted; and weighed on a digital scale. All coded data were entered into a Microsoft Access database. Data manipulation of a coded master catalog combining all sites was performed in Microsoft Excel.

The cultural material was sorted during cataloging into the following potential categories: 13 classes of prehistoric artifacts; 2 classes of ecofacts; ethnohistoric items, historic items, and modern items; and organic samples. The prehistoric artifact classes potentially included debitage, cores, utilized core tools, modified core tools, utilized flakes, retouched flakes, bifaces, percussing tools, groundstone, ceramics, bone artifacts, shell artifacts, and miscellaneous items.

Debitage, including both flakes and debris, was sorted by material type and cortical variation (primary, secondary, and interior) during cataloging. Maximum length, width, and thickness measurements were taken for all tools and cores using a sliding caliper.

Groundstone artifacts would have been classified by type, including millingstones and handstones. Maximum length, width, and thickness measurements would have been taken on complete groundstone items. No organic artifact classes (ecofacts) were identified.

Once preliminary cataloging of the material was completed, more detailed attribute analysis of lithics was performed. Flake stone artifacts were individually analyzed for selected morphological and technological attributes, as well as material and condition, in an attempt to gain insight into the period of occupation and the range of activities undertaken. Specific analytical methods are described in the analytical results section. All artifacts were subject to appropriate conservation in the field and laboratory, including proper packaging and handling.

5.4 Curation

All artifacts collected during archaeological testing for this study (Section 6.2) will be curated at the San Diego Archaeological Center. Any artifacts collected as part of future archaeological studies, or confiscated from looters, should also be curated so that the materials are preserved for the benefit of the general public and for archaeologists for future study. Proper curation of collected artifacts (and other materials, including documentation) can contribute to any mitigation to offset impacts to archaeological sites.

5.5 Disturbances

The entire Project APE has been disturbed and subjected to past impacts to varying degrees by agricultural and equestrian-related activities. Currently, irregular surface topography, piles of soil, general level-grading scars, graded road cuts, and the presence of other debris are evidence for these disturbances. The entire terrace comprising the southern portion of the APE, including the recorded site location of CA-SDI-687, has been plowed for agricultural use. Several trailers, and temporary/mobile building are vacant and deteriorating along the eastern edge of the terrace. Several low-lying spoil piles of disturbed topsoil were distributed along the central and northern portion of the current APE. These spoil piles are the topsoil remains of the ground surface within the APE.

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6.0 Results

6.1 Survey Results for CA-SDI-687

The portion of the site CA-SDI-687 that intersects the current Project APE was previously recorded as Archaic Period habitation site consisting of a sparse scatter of marine shell and lithic debitage, located in the eastern terrace edge area used for trailer storage along the edge of a Quaternary-age terrace. Subsequent to the initial recording of this Archaic Period site, a horse training facility was established in the general area. Only the few deteriorating structures and limited associated debris associated with this equestrian facility remain on the Project APE, just east and outside the current APE.

The current survey identified three invertebrate bivalve shell fragments (1 Chione, and 2 Argopecten) within the previously recorded portions of CA-SDI-687. Surface visibility was high throughout the Project APE. Outside of the, afore-mentioned diffusely dispersed shell fragments identified during the survey, the equestrian center activities appear to have removed the majority of any cultural constituents that may have been present on the site surface.

6.2 Archaeological Testing Results for CA-SDI-687

The portion of CA-SDI-687 that intersects the southeastern portion of the Project APE was evaluated for the current study (Confidential Appendix A). Dudek archaeologists revisited CA-SDI-687 and conducted excavations on March 17 and 18, 2021. The previously recorded site boundary was resurveyed using transects at less than 1-meter intervals. To determine the presence of a subsurface deposit, ten STPs and one CU were excavated. Table 6.1 (below) summarizes the resource yield from each ten STPs. Table 6.2 (below) summarizes the resource yield from CU-1. STPs 05, 07, 09, and 10 were sterile and STPs 01, 02, 03, 04 ,06, and 08 were positive requiring the excavation of CU-1. The positive CU and STPs only produced invertebrate marine shell fragments. No additional artifact types, intact features, deposits or midden was identified during the evaluation.

Six STPs were placed in the cleared compacted dirt pad where the surface expression of shells was the clearest, with four STPs placed clearly outside of the pad along the perimeter. The STPs were excavated to a depth ranging from 40 to 80 centimeters. STPs were abandoned when artifact productivity diminished. The surface and subsurface artifact assemblage consisted solely of unmodified shell (Appendix E). STP-01 was placed in the southern corner of CA-SDI-687 and was excavated to a depth of 40 centimeters. STP-04 was the most productive unit. It was placed in the northern portion of CA-SDI-687 as it intersected the Project; with the largest amount surface shell visible on the surface. The soil consisted of a highly compacted engineered clay loam, with modern debris present the full depth of 80 centimeters. The unit was terminated at 60 centimeters due to diminishing artifact returns. It was concluded that the engineered pad was at least 80 centimeters thick (Confidential Appendix A).

CU-1 was placed centrally on the anticipated transition from compacted pad to native soils as shown on the DPR form in Confidential Appendix A. CU-1 measured 1 meter by 1 meter and was excavated to a depth of 25 centimeters in the north west quadrant, to remove a modern construction tile fragment and 20 centimeters in the remaining quadrants. CU-1 was placed last in an attempt to expose the edge of the constructed pad and excavated down the side of it to verify the previous depth of disturbance. Modern sod was present along the southern half of the unit, and below that was a continuance of the engineered clay loam pad. STP-06 was placed in the southeast corner of CU-1 and excavated to a depth of 40 centimeters. It was terminated due to continued disturbance by the engineered pad.

The sediments revealed by all units outside of the constructed pad area consisted of homogenous sandy loam in the upper 40 centimeters followed by a dark grey brown clay with caliche to a depth of 40 to 60 centimeters. This suggest that the sediments were greatly disturbed by grading and equestrian activities. The sediments revealed by the STPs and CU in the constructed pad area to be composed of engineered clay loam with no stratigraphy. This suggest that the existing soils on site were utilized for the construction of this compacted pad.

Table 6.1. CA-SDI-687 STP Shell Yield

STP	Surface (n)	0–20 cm n(g)	20–40 cm n(g)	40–60 cm n(g)
STP-01	—	4 (1.72g)	—	—
STP-02	—	8 (9.82)	—	—
STP-03	5*	1 (1.05g)	3 (0.2g)	—
STP-04	13*	63 (13.9g)	62 (11.2g)	7 (1.97g)
STP-05	—	—	—	—
STP-06	1*		58 (19.5g)	—
STP-07	—	—	—	—
STP-08	2*	7 (2.46g)		
STP-09	—	—	—	—
STP-10	—	—	—	—

* identified in field, not collected

Table 6.2. CA-SDI-687 CU Shell Yield

Species	Surface (n)	0–10 cm n(g)	10–20 cm n(g)
Scallop (*Argopectin* sp.)	—	2 (1.78g)	3 (0.71g)
California Horn Snail (*Cerithideopsis californica*)	—	2 (0.99g)	—
Washington Clams (*Saxidomus nutalli*)	—	3 (2.39g)	1 (4.37g)
Pacific oyster (*Ostrea lurida*)	—	3 (1.25g)	
Undifferntiated	3*	10 (2.66g)	17 (2.11g)

* identified in field, not collected

7.0 Summary and Management Considerations

The current study identified one cultural resource, CA-SDI-687, that is located within the Project APE that would be impacted by Project implementation. Archival research, archaeological testing, and laboratory analysis were conducted to determine the eligibility of CA-SDI-687 for listing on the CRHR, CEQA and under cultural guidelines for the City of San Diego.

7.1 CA-SDI-687 Evaluation

The portion of CA-SDI-687 that intersects the Project APE is located in the same general area that has been used for equestrian center activities. Archaeologists observed that the equestrian center appears to have removed any artifacts that may have originally been present on the site surface. Dudek evaluated the portion of CA-SDI-867 within the Project APE using additional close-interval survey and excavation of ten STPs and one CU. Four STPs were sterile and six STPs were positive, containing fragments of marine shell, requiring the excavation of CU-1. The excavations identified a very sparse subsurface deposit consisting only of invertebrate marine shell fragments. No additional artifact types, intact features, deposits or midden was identified during the evaluation (Confidential Appendix A).

Considering the low yield of cultural material from the archaeological excavations, the lack of artifact diversity, and the disturbed soils, the portion of CA-SDI-687 that intersects the Project APE does not possess a significant subsurface archaeological deposit. Further research at CA-SDI-687 within the Project ~~is~~APE is unlikely to yield information important in prehistory and Dudek recommends CA-SDI-687 not eligible for listing on the CRHR under Criterion 4, respectively. As a prehistoric archaeological site, this portion of the site is not eligible for listing on the under criteria 1 through 3. Dudek recommends this portion of the resource as not significant under CEQA or under cultural guidelines for the City of San Diego. Dudek's recommendation does not apply to the unevaluated portions of CA-SDI-687 ~~this resource~~ outside of the APE.

7.2 Impact Analysis and Recommendations

Dudek's Phase I and Phase II studies resulted in the recommendation that the impacted historical resource (CA-SDI-687) is not eligible for listing in the California Register of Historical Resources (CRHR) or local register. The effects of the Project on this resource are not considered a significant impact on the environment. Based on the NAHC search of the Sacred Lands File and the lack of responses from contacted Native American representatives and organizations that were listed by the NAHC, there are no identified impacts to Tribal Cultural Resources (TCRs).

In the event that an unknown, intact archaeological material or burial-related items are encountered during project construction, the potential disturbance to the site would be a potentially significant impact. Mitigation measure **CR-1** would reduce these potentially significant impacts to levels that are less than significant by ensuring that steps are taken to identify and properly handle potential archaeological resources or human remains when they are encountered.

However unlikely, due to the potential to uncover unique artifacts, features, or human remains during grading for Project development, archaeological and Native American monitoring is recommended for all initial ground disturbance activities.

7.3 Mitigation, Monitoring, and Reporting

Potential impacts to historical resources would be reduced to below a level of significance through implementation of the following mitigation measure.

CR-1 The following shall be implemented to protect unknown archaeological resources and/or grave sites that may be identified during project construction phases.

I. Prior to Permit Issuance

A. Entitlements Plan Check

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, but prior to the first preconstruction meeting, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ADD

1. The applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.
3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site specific records search (1/2 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to MMC requesting a reduction to the 1/4 mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE),

Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to be Monitored

a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.

b. The AME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).

3. When Monitoring Will Occur

a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

III. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.

4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of

monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
    a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
    b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) which has been reviewed by the Native American consultant/monitor, and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume. Note: If a unique archaeological site is also an historical resource as defined in CEQA, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.
    c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenance of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains ARE determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, ONLY the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
    a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;
    b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN,
    c. In order to protect these sites, the Landowner shall do one or more of the following:
        (1) Record the site with the NAHC;
        (2) Record an open space or conservation easement on the site;
        (3) Record a document with the County.
    d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).

3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
2. The following procedures shall be followed.

a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.

b. Discoveries

All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Preparation and Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring. It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe resulting from delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.

a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California Department of Parks and Recreation

The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources

encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.
3. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection 5.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.
2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

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8.0 References

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36 CFR 60. National Register of Historic Places.

36 CFR 800.1–800.16 and Appendix A. Protection of Historic Properties.

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Appendix A (Confidential)

Project Area Cultural Resources Maps

Appendix B (Confidential)

Records Search Results

Appendix C (Confidential)

NAHC and Tribal Correspondence

Appendix D

Preparer's Qualifications

Jessica Colston

Associate Archaeologist, Paleontological Technician

Jessica Colston is an archaeological and paleontological field monitor and technician with 11 years' experience. Ms. Colston has extensive field experience including identification and comparative analysis of faunal assemblages, both past and present. Ms. Colston's research interests include zooarchaeology of Pacific coast hunter-gatherers, including examination of trauma and pathology, bone tool production, utilization of faunal materials beyond subsistence, morphometric analysis, taphonomic processes in coastal environments, and human impacts on local fauna.

Education

California State University, Los Angeles

MA, Anthropology (Archaeology emphasis), 2019 (expected)

University of California, Santa Cruz

BA, Anthropology (Archaeology emphasis), 2009

Certifications

CPR/First Aid

24-Hour HAZWOPER

Archeological Technician Certificate

Technician-Level Amateur Radio License, Call Sign K16NTC

Driver's License, Class M1

Professional Affiliations

Lambda Alpha National Honors Society

Society for American Archaeology

Society for Biological Anthropology

Society for California Archaeology

Project Experience

Development

Lone Oak Monitoring, CWC Lone Oak 24 LLC, San Diego, California. Coordinated daily archaeological and Native American monitoring for a residential development in an archaeologically sensitive area adjacent to jurisdictional waterways. Authored the Negative Monitoring report at the conclusion of the mass grading component of the project.

Hotel del Coronado North Parking Garage, Hdc South Beach Development LLC, Coronado, California. Responsible for monitoring into paleontological sensitive soils, and responsible for the recovery of any fossiliferous materials.

Costco Project, La Mesa, California. Drafted the Negative Survey Letter for the development of an adjacent commercial lot for Costco Gas station installation.

Sanborn Archaeological Significant Evaluation, Terra-Gen Development Company LLC, San Diego, California. Served as archaeological technician and report writer for evaluation excavations on previously recorded sites within the project's APE. Responsibilities included identification and documentation of archaeological features, artifacts and cultural soils. Report writing included the interpretation of the excavation results, both in terms of the artefactual assemblage and the sediments observed throughout the project area.

16970 Sunset Boulevard Cultural, Crest Real Estate, Los Angeles, California. Identified and documented archaeological and historical features on historic property.

235 North La Luna, Thomas and Kelly Adams, Ojai, California. Serving as archaeological technician. Responsible for excavation, documentation and collection of archaeological materials during phase II shovel testing.

Newland Sierra Project, Newland Sierra LLC, San Diego, California. Catalogued and performed data entry for collection previously housed with Palomar College.

Del Mar Beach Resort, Del Mar Beach Resort Investors LLC, San Diego County, California. Excavated, identified, and recorded archaeological materials recovered during phase II testing on site. Vertebrate and invertebrate analysis was performed in lab.

Highland Mesa Development II, Highland Mesa Development II Corp., Escondido, California. Served as archaeological technician. Monitored cultural resources during construction development for residential use.

The Yokohl Ranch Company Environmental Impact Report, Tulare County, California. Catalogued and sorted records of artifacts and features collected by project for analysis.

Villa Storia Affordable Housing Project, Villa Storia CIC LP, City of Oceanside, California. Served as archaeological technician. Identified and recorded cultural resources in the project area, which included on-site coordination with Native American monitors and subconsultants.

Twin Oaks Valley Road Residential Project, Pacific Real Estate Services, City of San Marcos, California. Wrote Negative Monitoring Report.

Villa Storia Monitoring, Beazer Homes Holding Corporation, City of Oceanside, California. Served as archaeological technician. Monitored ground disturbance in native soils adjacent to the Mission San Luis Rey during construction activities. This involved identification of ceramics, faunal bone, and historic ranching artifacts and impacts. Coordination with multiple subconsultants and Native American Monitors was also required.

Discovery Village South, City of San Marcos, California. Served as archaeological technician. Responsible for identification of historic and prehistoric cultural resources during survey of undeveloped project area.

973 K Street, SimonCRE Alpha III LLC, City of **San Miguel, California.** Served as archaeological technician. Responsible for pre-construction survey of lot purposed for commercial development. Responsible for coordination with the Native American monitors and evaluation of surface deposits of cultural materials. Proximity to the San Miguel Mission indicated likely subsurface deposits. Responsible for the preparation of Negative Findings Letter.

Energy

Edwards Additional 2019 Botanical Surveys, Terra-Gen Development Company LLC, San Diego, California. Responsible for co-authorship of the work plan and impact assessment plan for the Edwards AFB Solar Project. Preparation of these documents included the supplemental creation of an archaeological district, under SHPO guidelines. Faunal osteological identification/assessments contributed the work plan by proactively 'clearing' archaeological sites where any osteological material was previously recorded that was not clearly identified as non-human.

Task Order 23 EAFB 2019 Botanical, Terra-Gen Development Company LLC, San Diego, California. Co-authored work plan and impact assessment plan for the Edwards AFB Solar Project. Preparation of these documents included the supplemental creation of an archaeological district, under SHPO guidelines. Faunal osteological identification/assessments contributed the work plan by proactively 'clearing' archaeological sites where any osteological material was previously recorded that was not clearly identified as non-human.

Task Order 24 Cultural HPTP and MOA, Terra-Gen Development Company LLC, San Diego, California. Co-authored work plan and impact assessment plan for the Edwards AFB Solar Project. Preparation of these documents included the supplemental creation of an archaeological district, under SHPO guidelines. Faunal osteological identification/assessments contributed the work plan by proactively 'clearing' archaeological sites where any osteological material was previously recorded that was not clearly identified as non-human.

Centennial Flats Solar Project, Eolus North America Inc., Tonopah, Arizona. Responsible for leading an 11-person crew on a 5,000-acre Phase I survey in 10 survey days. Project area was previously un-surveyed and contained over 100 isolates and 10 newly recorded sites, including both prehistoric and historic habitations and infrastructure. Due to the time constraints of the survey, live coordination between two survey teams, project management, GIS and report writing was required. This was a methodological pilot project that yielded time saving innovations that will be implemented in other projects.

LNTP PreCon Activities, Tule Wind LLC, San Diego County, California. Co-lead on-site archaeologist. Responsible for coordination of monitors for full and appropriate coverage of ground-disturbing activities. Also responsible for identification, documentation, and collection of at-risk cultural resources present within the limits of the LNTP provided for the fence line.

California Flats Fairy Shrimp Project, First Solar Electric (CA) Inc., San Luis Obispo County, California. Responsible for mapping perimeter of vernal pool habitat for fairy shrimp. Occasional on-site inspection to reaffirm perimeter is in good condition.

Infrastructure Mapping on San Bernardino National Forest, Los Angeles Department of Water and Power, California. Performed LADWP field survey as an archaeological technician. Responsible for identification and documentation of cultural resources, both archaeological and historical.

Drew Solar Project, Drew Solar LLC, Imperial County, California. Performed phase I survey of proposed area for solar development. Documented and recorded historic canals and associated resources.

PP1&2 Transmission Line Conversion, Los Angeles Department of Water and Power, California. Responsible for field survey and record search associated with new transmission line work.

Tule Wind Compliance Monitoring, U.S. Bureau of Land Management (BLM), San Diego County, California. Responsible for monitoring and verifying the implementation of permit conditions in relation to cultural resources. This included detail oriented mapping, communication with on-site archaeological and cultural monitors, and documentation of incidents qualifying as violations of the established permit conditions or written agreements.

Blythe Unite 4, NextEra Energy Resources, Riverside County, California. Responsible for ensuring multiple on-site ground-disturbing activities had appropriate archaeological and paleontological monitoring coverage, as well as scheduling and recording of archaeological and paleontological materials discovered in the course of monitoring. This also involved the orchestration and coordination with multiple subconsultants, Native American monitors, archaeological field techs, and paleo monitors. Responsible for final identification and assessment of archaeological resources.

Jacumba Solar Archeological Project, BayWa Renewable Energy, San Diego County, California. As an archaeological monitor, responsibilities included identification, documentation, and collection of culturally significant artifacts and features. Monitoring was conducted in summer weather and required consistent movement to provide coverage for the ground disturbing activities.

McCoy Solar LLC Environmental Services, City of Blythe, California. Responsible for ensuring multiple on-site ground disturbing activities had appropriate archaeological and paleontological monitoring coverage as well as scheduling and recording of archaeological and paleontological materials discovered in the course of monitoring. This also involved the orchestration and coordination with multiple subconsultants, Native American monitors, archaeological field techs and paleo monitors. Responsible for final identification and assessment of archaeological as well as paleontological resources.

California Flats Project, First Solar Electric (CA) Inc., San Luis Obispo County, California. Responsible for ensuring multiple on-site ground-disturbing activities had appropriate archaeological and paleontological monitoring coverage, as well as scheduling and recording of archaeological and paleontological materials discovered in the course of monitoring. This also involved the orchestration and coordination with multiple subconsultants, Native American monitors, archaeological field techs, and paleo monitors. Responsible for final identification and assessment of archaeological and paleontological resources.

Jacumba Solar, Swinerton Builders, San Diego County, California. Served as archaeological monitor and was responsible for ensuring multiple on-site ground disturbing activities had appropriate archaeological monitoring coverage. Also responsible for the scheduling and recording of archaeological materials discovered in the course of monitoring.

McCoy Solar Energy Project, City of Blythe, California. Served as archaeological lead monitor and was responsible for ensuring multiple on-site ground disturbing activities had appropriate archaeological monitoring coverage as well as scheduling and recording of archaeological materials discovered in the course of monitoring. This also involved the orchestration and coordination with multiple subconsultants, Native American monitors, archaeological field technicians and paleontological monitors.

BLM Monitoring, Tule Wind LLC, San Diego County, California. Served as third-party archaeological monitor. Responsible for verifying compliance of construction with BLM and County permits and Conditions of Approval.

Military

Camp Wilson Infrastructure Upgrades, RQ Berg JV, City of Twentynine Palms, California. Responsible for coordinating archaeological monitoring with multiple subconsultants on an active military base. Unexploded ordnance training was a key element, as well as historic artifact identification.

Municipal

As-Needed Environmental Services, City of San Diego, California. Served as archaeological technician for historic site visits to nine of the dams within the San Diego Municipal water district's purview. Site visits included the recording of original and altered features of the historical structures and associated buildings. Responsible for the resultant resource descriptions for the present state of the historical resources. Dams visited included: San Vicente, El Capitan, Hodges, Miramar, Murray, Barrett, Upper Otay, Lower Otay and Sutherland.

City of Yucaipa On-Call Contract, California. Responsible for field survey of proposed impact areas for watershed projects. Recorded newly discovered cultural resources and the updating of existing records.

DS 86 BESS, Los Angeles Department of Water and Power, California. Record search at the South Central Coastal Information Center.

As-Needed Watershed and Resource Protection, City of San Diego, California. Wrote Barrett Lake reports.

San Diego Association of Governments Continuing Services Agreement, AECOM Technical Services Inc., San Diego County, California. Monitoring excavations in beach environment requiring railway safety training. Monitoring for this project required both paleontological and archaeological expertise. Responsibilities included identification, documentation and collection of prehistoric, historic and fossiliferous resources.

Resource Management

Double D Mine Project, Mitchell Chadwick, Blythe, California. Performed phase I Field survey around talc mine. Identification of historic and prehistoric resources was required, as well as recording and notifications.

Transportation

High Speed Rail Geotechnical, Dragados-Flatiron Joint Venture, Fresno, California. Performed excavation and identification of human osteological remains. Responsible for appropriate treatment and recording practices with sensitive remains.

Mid-Coast Corridor Projects, PGH Wong Engineering Inc., San Diego County, California. Approved as both an archaeological and paleontological monitor. Responsibilities focused on the identification, collection, and documentation of multiple ground disturbing activities during the course of the day. Railway training and strict adherence to safety protocols was vital. Prioritization of activities was required to provide appropriate coverage to various activities. Detailed documentation for both disciplines was required. Communication with multiple companies was required not only for technical documentation but also efficient use of time in the work day. Finds covered the spectrum from historic features and isolates to paleontological features.

Orange County Transportation Authority Additional Parking at Golden West Transportation Center, City of **Huntington Beach, California.** As archaeological technician, monitored construction and earth-moving operations for disturbances to archaeological/paleontological resources. Recorded any disturbed materials found. Workdays included working closely and safely around large construction equipment, which required good visual and verbal communication skills with construction personnel.

Water/Wastewater

Emergency Technical Support, Montecito Water District, Santa Barbara County, California. Responsible for field survey for assessment of impacts to archaeological resources during emergency efforts following the Montecito mudslides for FEMA compliance. Coordinated with emergency services for appropriate access and safety.

Hanson El Monte Pond Cultural Monitoring, Sierra Pacific West Inc., San Diego County, California. Responsible for preparation of the negative monitoring letter.

Inland Empire Brineline Reach V Rehabilitation, Santa Ana Watershed Project Authority, City of **San Bernardino, California.** Served as archaeological technician. Responsible for the monitoring of ground disturbing activities for archaeological resources.

North Broadway Pipeline Cultural Monitoring, Rincon del Diablo Municipal Water District, San Diego County, California. Responsible for the writing/preparation of the Negative Monitoring Report.

Relevant Previous Experience

Development

Bilstein Southwest Rally Cup Series, City of Yuma, Arizona. As an archaeological liaison, advised on proposals for the expansion of current rally series routes through state, federal and privately owned lands in California and Arizona. Conducted research and performed permitting for the rally series via the appropriate owners in compliance with Section 106. (2010–Present)

Catalina Island Metropole Project, Catalina Island, California. Screened back dirt from previous excavations with emphasis on identification of grave goods and the distinction between human and faunal remains. Participated in data analysis and entry into the Microsoft Access database. This data entry involved preliminary identification quality checks as well as metadata quality assurance within the database.

Sunshine Canyon Landfill Project, City of Simi Valley, California. Served as paleontological/archaeological monitor and primarily monitored for paleontological resources in canyon excavation. Daily field identification, recording, and preparation of fossiliferous or archaeological materials were required.

Various Monitoring Projects, Riverside and San Bernardino Counties, California. Served as paleontological/archaeological monitor on multiple projects in Riverside and San Bernardino counties during excavation activities such as grading and trenching, for items of any historical, archaeological, or paleontological significance. Identified and prepared paleontological samples in plaster in the field for transit to lab facilities.

Education

California State University, Los Angeles (CSULA) Coastal California Archaeological Lab Comparative Faunal Collection, City of Los Angeles, California. As founder and manager, established maceration lab compliant with Occupational Safety and Health Administration (OSHA) regulations. The lab specializes in providing students and professionals with an osteological comparative collection for species endemic and introduced along the California coast. This lab is also designed as a teaching lab where students can gain experience in maceration techniques and comparative anatomy.

ANTH 424 Archaeological Research Techniques, CSULA, Point Mugu Field School, Ventura County, California. As graduate assistant/field co-coordinator, taught field school survey, mapping, and excavation techniques as well as monitored the excavation of test units.

ANTH 310 Evolutionary Perspectives on Sex and Gender, CSULA, City of Los Angeles, California. As graduate assistant, assisted the course professor in the form of data entry, grading of papers, proctoring of exams, and chaperoned on the class field trip to the Los Angeles Zoo for primate observations.

Field School, CSULA, Point Mugu State Park, California. As field school crew leader/compass skills instructor, taught undergraduates mapping and orienteering techniques using topographic maps, compass, pace measurement and GPS skills. As a crew leader Ms. Colston facilitated the excavation of a test unit and the accompanying analysis of excavated materials.

ANTH 300 Evolutionary Perspectives on Emotion, CSULA, City of Los Angeles, California. Served as graduate assistant and aided the course professor in the form of data entry, grading papers, and the proctoring of exams.

Anthropology Department Assistant, University of California, City of Santa Cruz, California. As anthropology laboratories assistant, processed modern faunal specimens for maceration to museum/archival level quality. Preformed/supervised and taught the speciation of common osteological animal remains. Received extensive experience in the curation and cataloguing of incoming material from varying locations, contexts and categories. Made catalogues in both hard copy as well as digitally, with specific experience in FileMaker software. Skills in the use of scalpel blade maceration as well as dermestid beetles were extensively utilized. This position promoted a strong understanding of preservation techniques for different materials if they are to be used as an academic comparative.

Field School Cataloguing System, Cabrillo Community College, City of Aptos, California. Served as student collections analyst. During this final month of the field school learned how to utilize a cataloguing system whose input method was DOS, but also to create new cataloguing systems that were appropriate and commensurate with the scale of the project at hand. Also introduced to basic skills of field identification for historic items, appropriate references, and methods of classifying bone, stone and shell artifacts.

Presidio Field School, Cabrillo Community College, City of San Francisco, California. Served as student excavator. During this portion of the field school, Ms. Colston lived at the San Francisco Presidio and participated in the ongoing field project of excavating the area adjacent to the Officers' mess hall, but was historically the chapel. Methods learned here included using breaking bars and picks to dig through the melted adobe, as well as trowels, shovels, etc., to create pedestals and draw profiles.

Archaeological Technician Certification Course, Cabrillo Community College, Fort Hunter Ligget, Jolon, California. This was the first month of the three month course for earning the Archaeological Technician Certification. As student field surveyor, Ms. Colston was taught to use both basic and advanced methods of orienteering with topographic maps, compass, and GPS. Skills learned included utilization of latitude/longitude coordinates and Universal Transverse Mercators, township and range, and ethnographic narrative. For practical experience the team camped at Fort Hunter Ligget and performed transect surveys and shovel test pits.

Energy

NRG Power Plant Project, City of El Segundo, California. Served as paleontological/archaeological monitor and monitored for archaeological and paleontological materials in a coastal environment with excavations exceeding 20 feet below sea level. OSHA compliance and other environmental compliance regulations were emphasized.

Federal

U.S. Forest Service Field Survey, Modoc National Forest, California. Served as an archaeological technician. The majority of the job was field survey, recording new sites, monitoring known sites, and completing a federal monitoring form when visiting sites that had not been updating in 10 years or more. Responsible for detailed and accurate completion of federal site forms, positive artifact identification, material identification of artifacts (mostly lithics), ability to hike a minimum of 5 miles in extremely rocky terrain while carrying a 40 pound field pack.

U.S. Forest Service Crew Chief, Modoc National Forest, California. As crew chief, supervised and trained a crew of 3–4 people while conducting Section 110 compliance site recordation of both prehistoric and historic sites. Crew included 2–3 unpaid volunteers and at least one GS-03. This position required the independent completion of federal Environmental Impact Report forms. Detailed proofreading of technical reports for government use was required. The team used GPS navigation, topographic maps in latitude/longitude and Universal Transverse Mercators coordinates, in addition to compass navigation for archaeological site recognition and mapping. This position also included helping train, lead and supervise a Passport in Time (PIT) project, which introduced over 20 volunteers to the archaeological resources of Modoc National Forest. The PIT project had two sessions, which were each one week in duration.

Military

CA-SNI-40 Excavation Project, San Nicolas Island Naval Base, California. As archaeological field and lab assistant, assisted with excavation of CA-SNI-40, a coastal indigenous archaeological site on San Nicolas Island, off the southern coast of California. Analysis of excavated cultural material including bone from sea mammals and birds, shell, and lithics.

Phase 2 Survey Project, Center for Environmental Management of Military Lands, Fort Greely, Alaska. Served as archaeological technician. The team was completing Phase 2 surveys of probable sites while using shovel test pitting techniques to investigate subsurface deposits. Experience in using many tools for excavation depending on soil solidity, including: mattock, pickaxe, shovel, trowel, and ice pick, etc. Due to remote location of survey area, as well as working on military lands, multiple training certifications were received, including bear training, unexploded ordinance training, ARGO amphibious vehicle driving, and excavation through glacial till.

Resource Management

Sunshine Canyon Landfill Monitoring, City of Granada Hills, California. Served as air quality monitor and patrolled a neighborhood downwind of the landfill for offensive odors and recorded the findings. This job required that monitors also be on the lookout for anything unusual in the neighborhood, thus patrollers would act as unofficial members of the neighborhood watch.

Transportation

San Gabriel Mission Alameda Corridor–East Project, City of San Gabriel, California. Screened and excavated area immediately adjacent to Mission San Gabriel. The identification of human and faunal remains was invaluable.

Specialized Training

- Flint Knapping, 2012
- Society for California Archaeology (SCA) Zooarchaeology Workshop, 2011
- SCA Workshop Archaeochemistry Workshop, 2010
- Biohazard/Lab Safety, 2009
- Wilderness Bear Training, 2008
- Unexploded Ordinance Training, 2008

Conference Presentations

"A Spatial Analysis of the Distribution of Bone Tools at CA-SNI-25." 2014. Poster presented at the Society for American Archaeology 79th Annual Meeting. Austin, Texas.

"California Spiny Lobster (*Panulirus interruptus*) in the Archaeological Record." 2014. Presented at Society for California Archaeology 48th Annual Meeting. Visalia, California.

"Small Island, Big Connections: An Investigation into the Cultural Network Implications of the Redwood Box Cache." 2013. Presented at Society for California Archaeology 47th Annual Meeting. Berkeley, California.

"Quilted Subsistence Patterns: A Middle Holocene Food Tradition on San Nicolas Island, California." 2013. Presented at Society for California Archaeology 47th Annual Meeting. Berkeley, California.

"Preliminary Analysis of a Mainland Shell Midden: CA-VEN-395." 2013. Presented at Society for California Archaeology 47th Annual Meeting. Berkeley, California.

"Analyzing the Hafted and Unhafted Bifaces from the Redwood Box Cache Feature, San Nicolas Island, California." 2013. Presented at Society for California Archaeology 47th Annual Meeting. Berkeley, California.

"Historic Artifacts Recovered from the Redwood Box Cache on San Nicolas Island, California." 2013. Program of the 8th California Island Symposium. Ventura, California.

"Using Cranial Morphometrics to Investigate the Domestication of Foxes on San Nicolas Island." 2012. Program of the 46th Annual Meeting of the Society for California Archaeology. San Diego, California.

"Using Cranial Morphometrics to Investigate the Domestication of Foxes on San Nicolas Island." 2012. Presented at Student Research Conference, California State University, Los Angeles. Los Angeles, California.

Awards

Above and Beyond Volunteerism Award, Bilstein Southwest Rally Cup, 2013

California State University, Los Angeles (CSULA) Emeriti Fellowship, 2012

Fund to Support Graduate Students in Research, Scholarship, and Creative Activities, 2012

CSULA Travel Support Scholarship, 2012

Ladies Auxiliary Continuing Education Scholarship, Veterans of Foreign Wars Post No. 2075, Hawthorne, California, 2010

Academic Jacket Award, Los Angeles Unified School District, California, 2005

Advanced Placement Scholar Award, 2004

David Faith

Associate Archaeologist

David Faith (DAY-vid FAYth; he/him) is an archaeologist with 3 years' experience in cultural resource management, specializing in various aspects of cultural resources investigations, chiefly within the southern California region. Mr. Faith's experience includes archival research, reconnaissance surveys, a variety of fieldwork methods, artifact analysis, and archaeological monitoring.

Development

Ivanhoe Ranch, El Cajon, California. Associate archaeologist. Assisted in determining where to excavate, the use of the Trimble GPS to record excavation units, and excavating numerous shovel test pits. Conducted in-depth laboratory analysis of the excavated materials. (2020)

Vallecitos Water District, San Marcos, California. Associate archaeologist. Conducted archaeological monitoring for the removal and replacement of multiple sewage pipes. (October 2020–Present)

Nakano, Pardee Homes, Chula Vista, California. Associate archaeologist. Conducted a host of shovel test pits for Phase II archaeological testing. Additionally, conducted Department of Parks and Recreation (DPR) records updates for the project and laboratory analysis. (2020)

San Diego City Monitoring, San Diego, California. Associate archaeologist. Conducted archaeological monitoring of underground utility removal and replacement. (2020)

Desert Hot Springs Library, Desert Hot Springs, California. Associate archaeologist. Conducted archaeological monitoring of new building construction. Co-authored the corresponding final monitoring report. (2020)

French Valley Library Project, Riverside County, California. Associate archaeologist. Conducted archaeological monitoring of new building construction. Co-authored the corresponding final monitoring report. (2020)

Proctor Valley, Proctor Valley Village 14, Jackson-Pendo Development, Otay, California. Field technician. Excavated shovel test pits along the proposed trail during Phase II testing. Responsible for the identification, documentation, and collection of cultural resources. (December 2017; August 2019)

Education

California State University, San Bernardino
MA, Applied Archaeology, 2020

American Military University
MA, National Security Studies, 2015
Graduate Certificate in Intelligence Analysis, 2013

Norwich University
MA, Diplomacy (International Terrorism Focus), 2011

University of Tennessee, Knoxville
BS, Nursing, 2004

Certifications

Registered Professional Archaeologist, 2021

Professional Affiliations

Society for American Archaeology, 2021

Professional Courses

Underwater Cultural Heritage: An ACUA Seminar, 2020

Mine Safety and Health Administration, New Miner Certification, 2020

The Art and Science of Flintknapping, University of California Riverside Extension 2019

Artifact Illustration Course, 2018

Presentations

California State University, San Bernadino's Ninth Annual Meeting of the Minds: Thesis Presentation, 2020

Hotel Del Coronado New Construction, Coronado, California. Archaeological field technician. Conducted archaeological monitoring for the parking lot extension and new building construction on the premises. Properly observed and recorded a linear feature (historic boardwalk) that was unearthed during the excavation. (November 2019–February 2020)

Steadfast Housing Project, Carlsbad, California. Field technician. Conducted archaeological monitoring for a new housing development. (2019)

Agoura Village East–Extended Phase I Archaeological Investigation, Agoura Hills, Los Angeles County, California. Field technician. Excavated shovel test pits and screened excavated soils for artifacts. (2019)

Hotel Del Coronado Parking Lot Project, San Diego County, California. Field technician. Provided support in the recordation and evaluation of historic cistern and other water infrastructure features associated with the National Register of Historic Places-listed Hotel del Coronado. (2018–2019)

Wheeler Reef Extension, San Clemente, California. Field technician. Assisted the head archaeologist in a Phase 1 underwater archaeological survey, prepared the diving gear, assisted the divers on the boat, analyzed the collected materials, and reviewed the diving plans prior to the dives. (2018)

Vineyard II Project, Murrieta, California. Archaeological field technician. Crew member for a pedestrian survey of a 6-acre commercial development. (April 2018)

Energy

Strauss Wind Energy Project, Lompoc, California. Field technician and Associate archaeologist. Served as the crew chief for a Phase III data recovery project at a complex prehistoric site; supervised 10 to 15 crew members during the project. Conducted Ground Penetrating Radar at one of the sites, as well as numerous excavations. Conducted flotation and post-recovery artifact analysis. (February 2020–Present)

Sanborn Solar Energy Project, Sanborn, California. Associate archaeologist. Conducted archaeological monitoring of solar field development. (August–September 2020)

Arlington Solar Energy Center, Blythe, California. Associate archaeologist. Monitored the pre-construction activities for the solar energy project. (2020)

Blythe Solar Power Project, Blythe, California. Associate archaeologist and Field technician. Properly excavated and recorded numerous shovel test pits in support of Phase II testing plan. (2019–2020)

Blythe Solar Field Project, Blythe, California. Associate archaeologist. Monitored the pre-construction activities associated with the project. (2020)

Jacumba Solar Project, BayWa Renewable Energy, San Diego County, California. Inventoried the artifacts collected during archaeological monitoring to prepare them for delivery to a repository. (2020)

Edwards Air Force Base Solar Field, Edwards Air Force Base, California. Field technician. Participated in the Phase I surveying and recordation of numerous archaeological sites on the military installation. (2019)

San Jacinto II Wind Energy Repowering Project, Terra-Gen, LLC, Palm Springs, California. Archaeological field technician. Field crew for a Class III pedestrian survey of Bureau of Land Management land; prepared DPR forms. (June 2019)

Torrey Wind, County of San Diego, California. Ceramic Analysis. Field technician. Conducted pedestrian survey and data recovery testing of cultural resources that would be impacted by the project. Used GPS, documented excavations, and conducted in-depth ceramic analysis in the laboratory. (2018)

Campo Wind Project, Bureau of Indian Affairs, San Diego County, California. Field technician. Conducted a pedestrian survey and data recovery testing for a project area that encompassed 1200 acres. Identified and evaluated 21 historic and prehistoric sites. Tasks included artifact analysis and curation preparations, as well as documenting identified sites on DPR forms. (2018)

Otay Ranch Village 14 Project, **Chula Vista, Calfornia.** Field technician. Processed artifacts from two prehistoric sites; prepared collections from 55 historic and prehistoric sites for curation. (November 2017–February 2018)

Education

Education Outreach. Field technician. Assisted in numerous education outreach events for elementary-aged children through college students to teach them about the importance of archaeology. (2018–2019)

Transportation

California High Speed Rail Project, California. Associate archaeologist and Field technician. Organized and prepared numerous cultural and tribal resources survey reports and monthly summaries. (2019–Present)

Mid-Coast Transit Constructors, San Diego, California (Final Report writing). Associate archaeologist. Collaborated with other archaeologists to produce vital components of the final monitoring report. (October 2020–Present)

Mid-Coast Transit Constructors, San Diego, California. Cross-trained archaeological and paleontological field technician. Monitored drilling, trenching, and excavations throughout San Diego. (2018–2019)

Relevant Project Experience

San Diego City, Water Screening, Imperial Beach, California. Associate archaeologist. Water screening and artifact analysis for various San Diego city projects. (June 2020–Present)

Argonne Labs, Edwards Air Force Base, California. Associate archaeologist. Reviewed numerous DPR forms to create a comprehensive in-house database for further use. Edited and created a host of data tables for archaeological research and planning. (2020)

Perris and Morgan Industrial Park, Riverside County, California. Associate archaeologist. Conducted sacred land file search requests and Native American Heritage Commission mailers for the initial project assessment. (2020)

650 Bennet Avenue Project San Marcos, California. Field technician. Conducted laboratory processing, analysis, and cataloging of the historic artifacts that were recovered during monitoring. Authored an in-house document that helped organize the artifacts. (2019)

Jefferson at Avalon Specific Plan Project, City of Carson, California. Field technician. Conducted archival and literature research to identify known cultural resources within the proposed project site to address potential impacts as a result of project implementation. (2019)

Berggruen Institute Project, City of Los Angeles, California. Field technician. Conducted archival review to identify known cultural resources within the proposed project site. (2019)

Rialto Energy Storage Project, Rialto, California. Field technician. Assisted in authoring the ethnographic section of the Rialto Cultural Paleo Report. (2019)

1225 Cliff Drive Project, City of Laguna Beach, California. Conducted archival review to identify known cultural resources the proposed project site, the remodeling of an oceanfront historic residence. In support of this effort, a cultural resources study was completed pursuant to CEQA. (2019)

California Statewide Flake Tool Analysis. Field technician. Completed training in flaked stone debitage and flaked tool analysis to support a statewide study. (2017–2018)

Angela Pham, RPA

Archaeologist

Angela Pham is a field archaeologist with 9 years' experience, specializing in a variety of technical skills, including surveying, excavation techniques, testing, data recovery, monitoring, artifact identification, cataloging, and preservation and curation. Ms. Pham is highly knowledgeable about the California Environmental Quality Act and National Historic Preservation Act Section 106 and Section 110. She works closely with Native American tribal members and manages and supervises field crews and lab technicians, and directs, plans, and organizes field projects. Ms. Pham authors site inventory reports, cultural technical reports, and Department of Parks and Recreation (DPR) site records. She conducts record searches and research using the National Archaeological Database and the California Historic Resources Information System at the South Coastal Information Center.

Education

San Diego State University
MA, Applied Anthropology,
BA, Anthropology, 2008

Certifications

Registered Professional Archaeologist (RPA)

Professional Affiliations

San Diego Archaeological Society
Society for American Archaeology
Society for California Archaeology

Project Experience

Development

City of San Diego On-Call Cultural Monitoring for Undergrounding Utility District Project (Tasks 1-7; H176952), San Diego, California. Archaeological PI. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations Records search. Author Archaeological monitoring exhibit and technical report per Task Order.

City of San Diego On-Call Cultural Monitoring for Undergrounding Utility District Project (Tasks 1-12), San Diego, California. Archaeological PI. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations Records search. Author Archaeological monitoring exhibit and technical report per Task Order.

Kaiser San Marcos, City of San Marcos, California. As Project Archaeologist; conducted field survey, records search, NAHC outreach and authored technical report

Via Aprilia Residential Project, Via Aprilia LLC., City of San Diego, California. As Project Archaeologist; conducted field survey, records search, NAHC outreach and authored technical report

Hotel Del Coronado North Garage Project, City if Coronado, California. As project archaeologist, conducted compliance monitoring on Bureau of Land Management (BLM) land. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations. Co-authored technical report.

Casa Del Zorro, San Diego County, California. As Project archaeologist, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources. Conducted evaluation of known resources. Authored technical report

Double D Mine Project, County of Riverside, California. As Project archaeologist, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources. Conducted evaluation of known resources. Authored technical report

Archaeological Survey for the Canyon Spring Healthcare Center, City of Riverside Community and Economic Development Department, Riverside, California. As field director, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Archaeological Survey for Lake Mission Viejo Project, Lake Mission Viejo Association, Orange County, California. As field director, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Archaeological Testing and Monitoring for the Hamilton Hospital Project, Marin County, California. As field director, conducted extended Phase I testing and monitored auguring activities for the future construction and improvement of the Hamilton Hospital. Dug shovel test units, used GPS, and documented excavation.

Archaeological Survey and Testing for the Proctor Valley Village 14 and Preserve, Jackson Pendo Development, San Diego County, California. Served as archaeologist. Conducted intensive pedestrian survey and field testing for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Archaeological Site Visit for the 888 North Sepulveda Boulevard Hotel Project, OTO Development, Los Angeles County, California. As archaeologist, conducted a pre-construction archaeological site visit with clients and construction foreman. Discussed standard archaeological field protocols.

Archaeological Monitoring for the Corona Brine Line Project, Santa Ana Watershed Project Authority, Riverside County, California. As archaeologist, coordinated with Charles King Company (construction company) project managers and construction foreman, conducted archaeological monitoring for the installment of the brine line.

Archaeological Survey for the Torrey Highlands Office Project, The Preserve at Torrey Highlands LLC, San Diego County, California. As field director, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources. The project involves development of a 450,000-square-foot office project in the Torrey Highlands community of San Diego, located south of State Route 56 along the future extension of Camino Del Sur. The area of potential effects, consisting of the 11.1-acre project site, is bounded on three sides by undeveloped land within the City's Multi-Habitat Preservation Area.

Education

Archaeological Testing for the Mission Beach Elementary School Project, San Diego County, California. As field director, conducted Phase II of testing for future construction at the Mission Beach Elementary School. Dug shovel test units, used GPS, and documented excavation.

Energy

Campo Wind Project, Bureau of Indian Affairs, San Diego County, California. As lead archaeologist, conducted pedestrian survey and data recovery testing of cultural resources that would be impacted by the project. Used GPS, and documented excavation. Co-authored technical report.

Torrey Wind Project, County of San Diego, California. As lead archaeologist, conducted pedestrian survey and data recovery testing of cultural resources that would be impacted by the project. Used GPS, and documented excavation. Co-authored technical report.

Calcite Solar Project, County of San Bernardino, California. As Project archaeologist, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources. Conducted evaluation of known resources. Authored technical report

Tule Wind, County of San Diego, California. As lead archaeologist, conducted compliance monitoring on Bureau of Land Management (BLM) land. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations

Devers-Colorado River No. 1 Transmission Project, County of Riverside, California. Project archaeologist, coordinated field visits with BLM and CDWFC; implement long term archaeological management plan. Review field discoveries and evaluations.

Imperial Solar Energy West, Imperial County, BLM, California. As Project archaeologist; implemented Long Term Archaeological management project for ISEC west; author technical reports; conducted yearly site visits and evaluations.

Blythe Solar Power Project, NextEra, Riverside County, California. As lead archaeologist, conducted compliance monitoring on Bureau of Land Management (BLM) land. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations. Co-authored technical report.

McCoy Solar Energy Project, Riverside County, NextEra, California. As lead archaeological monitor, conducted and coordinated archaeological compliance monitoring, archaeological surveys, and Section 106 testing on BLM land for construction of access roads, substation, restoration activities, and a 230-kilovolt generation tie-line for the McCoy Solar Project. Responsible for on-site implementation of the archaeological monitoring program, including daily safety briefings. Oversaw field monitors. Coordinated the work of subconsultants or other contractors participating in archaeological field investigations.

Archaeological Monitoring for the Block 4N North Encanto Underground Utility Project, City of San Diego, San Diego County, California. Served as archaeologist. Coordinated with San Diego Gas & Electric (SDG&E) project managers and construction foreman. Conducted archaeological monitoring for underground utilities trenching.

Cultural Resources On-Call Contract, SDG&E, San Diego, Riverside, Imperial, and Orange Counties, California. As field director. Organized and led archaeological surveys of project areas on an as-needed basis. Identified, recorded, and mapped sites within the project areas. Provided management recommendations, pole placement recommendations, and cultural resources monitoring. Wrote DPR forms and technical reports regarding project findings.

Transportation

Archaeological Monitoring for the City of San Juan Capistrano Highway 74 Project, Caltrans, Orange County, California. As archaeologist, coordinated with project managers and construction foreman, and conducted archaeological monitoring for Highway 74 improvements.

Water/Wastewater

Recycled Water Pipeline and Facility Upgrades Project, San Elijo Joint Powers Authority, San Diego County, California. As Project archaeologist, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources. Conducted evaluation of known resources. Authored technical report

Archaeological Testing for the Hidden Ridge Recycled Water Pipeline Project, Santa Margarita Water District, Orange County, California. As archaeologist, conducted extended phase I testing for the installment of a recycled water line to serve the Hidden Ridge community within the Santa Margarita Water District service area.

Archaeological Monitoring for the Line B, Project, Riverside County Flood Control and Water Conservation District, Riverside County, California. As archaeologist, coordinated with WINCO project managers and construction foreman, conducted archaeological and paleontological monitoring for all trenching activities for the pipeline.

Archaeological Survey for Lake Morena Dam and Outlet Project, San Diego County, California. As field director, directed field crew and conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Archaeological Survey for Lake Morena Reservoir Project, City of San Diego Public Utilities Department, San Diego County, California. As field director, conducted intensive pedestrian survey for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Relevant Previous Experience

County of San Diego Fuel Reduction Parcel Preparation Program in Julian, Whispering Pines, and Along State Route 78/79, Environmental Resource Solutions Inc., San Diego County, California. As associate archaeologist, performed a cultural resources survey of the project area. Created avoidance measures in consultation with ERS and the County of San Diego and prepared a technical report.

Cultural and Historical Resources Report and Impact Analysis for the Elvira to Morena Double Track Project, HDR Engineering Inc., San Diego, California As associate archeologist, performed a cultural resources survey of the double track project area, including a visual impact of buildings within the indirect area of potential effect, and an evaluation of the railroad and associated railroad bridges and features.

Archaeological Testing for the Sorrento to Miramar Double Track Project, BRG Consulting for San Diego Association of Governments (SANDAG), San Diego County, California. As field director, conducted on-site water screening and lab processing with archaeological crew.

Archaeological Survey for the Padre Trail Inn Project, Helix Environmental Planning, San Diego County, California. As field director, conducted intensive pedestrian survey for project area. Identified all potential impacts to existing and newly recorded cultural resources.

Stabilization and Rehabilitation of the San Diego Mission de Alcala Archaeological Collections, Mission Basilica San Diego, San Diego County, California. Served as laboratory director. Conducted the stabilization and rehabilitation of archaeological collections currently residing at the San Diego mission. Brought the collections up to present federal curation standards. Recommended options for proper long-term curation of collections.

Archaeological Survey for the Greater Julian Tree Removal Project, Julian, County of San Diego, California. As field director, conducted intensive pedestrian surveys for all areas that are part of the San Diego County fuels reduction program. Identified all potential impacts to existing and newly recorded cultural resources.

Archaeological Survey for the Gateway Road Project, Helix Environmental Planning, Calexico, Imperial County, California. As field director, conducted intensive pedestrian survey for 0.5-acre property. Recorded potential impacts to cultural resources.

Archaeological Monitoring for the Black Mountain MET Tower Project, BLM, Imperial County, California. As supervisor archaeologist, conducted pedestrian survey prior to construction and created an access route to MET Towers. Monitored all construction activity.

Archaeological Monitoring for the Tule Wind Project, Iberdrola Renewables Inc., San Diego County, California. As supervisor archaeologist, conducted monitoring for geotechnical work in compliance with BLM requirements for Section 106 of the National Historic Preservation Act (NHPA). Surveyed and recorded existing and new sites located near geotechnical testing locations.

Archaeological Survey for the Rosemary's Mountain Quarry Expansion Project, Granite Construction, San Diego County, California. As archaeologist, conducted an intensive pedestrian survey in order to determine if any previous or new cultural resources could be encountered during construction expansion.

Archaeological Survey for the Otay Mesa Cactus Road Project, U.S. Army Corps of Engineers, San Diego County, California. Served as field director. Conducted an intensive pedestrian survey in compliance with NHPA and CEQA guidelines. Determined the presence and absence of any additional cultural resources within the project area.

Archaeological Testing and Monitoring for the 10th Avenue and Urbana Apartments Project, H.G. Fenton Company, San Diego County, California. As supervisor archaeologist, conducted testing and trench excavation prior to construction of project area. Monitored all ground disturbance activities. Collected and recorded any cultural resources.

Archaeological Testing and Monitoring for the 15th and Market Apartments Project, 15th and Market Investors LLC, San Diego County, California. As field director, conducted pre-construction subsoil testing and construction grading and demolition monitoring. Determined if any significant cultural resources were either present or absent. Recorded and documented any significant structures or features during construction.

Archaeological Testing for the Sorrento to Miramar Double Track Project, SANDAG, San Diego County, California. As field director, conducted on-site water screening and lab processing with archaeological crew.

Archaeological Survey for the Woodward Project, Helix Environmental Planning, San Diego County, California. As field director, conducted Phase I cultural resources survey for future development.

Archaeological Testing and Monitoring for the North Country Transit District, Sorrento to Miramar Project, ABC Construction, San Diego County, California. As field director, conducted test excavation in order to determine if cultural resources were located in construction area. Also conducted construction monitoring.

Archaeological Testing for the Padre Dam Eastern Service Area Secondary Connection-Alternative Site Location Project, Helix Environmental Planning, San Diego, California. As field director, conducted Phase II testing for future installment of reservoir, tanks, and water pumps. Dug shovel test units, used GPS, documented excavation, and supervised field crew.

Archaeological Evaluation for the Marine Corps Base Camp Pendleton Conjunctive Use Project, MCB Camp Pendleton, San Diego County, California. As associate archaeologist, conducted pedestrian survey in order to identify any cultural resources located on Camp Pendleton and Fallbrook boundaries of the area of potential effect.

Archaeological Monitoring for the Lusardi Creek Restoration Project, Dudek, San Diego County, California. As field director, conducted monitoring for the removal of invasive species adjacent to Lusardi Creek. Identified any cultural resources that were uncovered during the removal of invasive plants.

Archaeological Data Recovery and Monitoring for the Palomar College Mitigation Project, Palomar College District, San Diego County, California. As associate archaeologist, conducted controlled excavation units, water screened excavated soil, and lab processed all cultural material found on site.

Archaeological Survey and Monitoring for California Department of Transportation (Caltrans) State Route 76 project, Caltrans District 11, San Diego County, California. As field director, conducted survey and monitored trenching for proposed State Route 76 road expansion.

Archaeological Data Recovery for the North Country Transit District, Sorrento to Miramar Project, ABC Construction, San Diego County, California. As associate archaeologist, conducted controlled unit excavations, water screened soil, and conducted lab processing both in the field and the lab. Client Reference: ABC Construction Co. Inc., 619.239.3428.

Archaeological Survey for the De Luz Pole Replacement Project, SDG&E, San Diego County, California. As field director, supervised and conducted cultural surveys for future power pole replacements.

Archaeological Survey for the LNL UG Gateway, SDG&E, Laguna Nigel, Orange County, California. As field director, supervised and conducted surveys for future power pole replacements.

Archaeological Survey of SDG&E Power Poles, SDG&E, Palomar Mountain, San Diego County, California. As field director, conducted preconstruction survey of 19 power poles on Palomar Mountain.

Archaeological Survey and Monitoring for the Devers Palo Verde 2 Project, Southern California Edison, Riverside County, California. Served as field director. Supervised and conducted survey and monitoring for proposed substation location. Coordinated work with Southern California Edison. Marked off areas containing culturally sensitive materials.

Wood-to-Steel Preconstruction Archaeological Surveys for Tie Line Alternative Pole Replacements, SDG&E, San Diego County, California. As archaeological field technician, conducted preconstruction survey for future power pole replacements.

Publications

Pham, A. "Historical and Archaeological Patterns of Water Use in San Diego County: A Case Study of the Whaley House Cistern/Well." Master's thesis; San Diego State University.

Scott Wolf

Archaeologist

Scott Wolf is an archaeologist with 20 years' experience in professional archaeology. He graduated from the College of Charleston with a Bachelor of Science (BS) degree in anthropology in 1996 and has worked in the San Diego area since 2003. Mr. Wolf has most often been involved in field directing or leading in survey, testing, data recovery, paleoecological studies, remote sensing, monitoring and project management throughout California for the last 18 years. He is certified by the City of San Diego as an archaeological monitor and has security clearances for military installations in Southern and central California, including Naval Base Point Loma (NBPL) and San Clemente Island (SCLI) Naval Auxiliary Landing Facility (NALF). Along with being well versed in regional prehistory and history, artifact analysis, and the analyses of invertebrate remains, Mr. Wolf specializes in military history and aviation and military-related archaeology. He was the field director on the award-winning team of archaeologists and architects who provided historical evaluation and mitigation services for the Cosmopolitan Hotel in Old Town San Diego State Historic Park for California State Parks (CSP).

Employment History

- Archaeologist, Dudek, Encinitas Cultural Department, Encinitas, California, 2014 to present.
- Senior archaeologist, NWB Environmental Services LLC, San Diego, California, 2014.
- Associate archaeologist, ASM Affiliates Inc., Carlsbad, California, 2003–2014.
- Associate archaeologist, Brockington and Associates, Mount Pleasant, South Carolina, 1997–2014.

Other Capabilities

- San Diego history
- Military history
- Expert artifact identification and analysis
- Invertebrate marine shell speciation
- Cartography
- Global Positioning System (GPS) data collection.

Education

College of Charleston
BS, Anthropology, 1996

Norwich University
MA, History, in progress

Certifications

40-hour training Hazardous Waste Operations and Emergency Response (HAZWOPER) (initially issued in 2007; current valid through 2021)

NCTD Railroad Safety

MCTC Railroad Safety

BNSF Safety & Intermodal qualified

Adult CPR and first aid training

Professional Affiliations

Society for California Archaeology

Pacific Coast Archaeological Society

San Diego Archaeology Center

Historical Congress of San Diego

San Diego County Archaeological Society

Training

2008–2021, 8-hour HAZWOPER refresher training

2007–2008, Training seminars for aviation archaeology field, lab, and research methods

1996, Paleontology/ paleoanthropology field school, Red Desert Basin Project, Red Desert, Wyoming

1995–1996, Laboratory internship at the Nathaniel Russell House, Historic Charleston Foundation, Charleston, South Carolina

Awards

2011, Preservation Design Award in Recognition of Outstanding Achievement in the Field of Historic Preservation for the Cosmopolitan Hotel Restoration Project

Clearances

- Department of Defense (DoD) clearance for Space and Naval Warfare Systems Command (SPAWAR)
- DoD clearance for NBPL
- DoD clearance for SCLI
- DoD clearance for Marine Corps Base Camp Pendleton (MCBCP)
- DoD clearance for Edwards Air Force Base (EAFB)
- DoD clearance for Twenty-nine Palms Marine Corps Air Ground Combat Center (MCAGCC)
- Camp Pendleton Range Safety Officer (RSO), non-live fire range certified 2006–2008
- Unexploded ordnance (UXO) safety training for Twentynine Palms MCAGCC and SCLI.

Independent Research

- Military History of San Diego and Southern California and Military Munitions Casing Head-Stamp Identification Database.
- San Diego Coastal Defense Base Stations Research
- Southern California Aviation Archaeology

Laboratory Experience

- 5 years and current Dudek Encinitas Cultural Department Lab Manager
- 18 years of laboratory lab analysis for projects spanning Southern California.
- Two internships with Martha Zierden and Ron Anthony of the Charleston Museum, Charleston, South Carolina.

Selected Project Experience

City of San Diego Underground Utilities On-Call, City of San Diego, California. As field directing archaeologist, assisted with the management of various tasks for the cultural resource mitigation program during construction. Assisted in the management of monitors, co-authored technical reports, prepared DPR forms and conducted site evaluations when applicable. Currently assisting with the management and leading the cultural field monitoring for the highly sensitive Block 1J Phase 01 task of the project; which includes the design and field direction of the water screening phase of the field work and managing the subsequent lab work.

Campo Wind Project with Boulder Brush Facilities, Terra-Gen, LLC, San Diego County. As an archaeological field director, conducted intensive pedestrian survey, testing and evaluations. Lead crews during field evaluation in multiple prehistoric and historic sites, collecting, recording, and photographing artifacts and test pits. As a lab manager, directed the processing of artifacts, cataloging artifacts, site descriptions, Department of Parks and Recreation forms, photographing artifacts and writing sections of the report.

Torrey Wind Project, Terra-Gen Power LLC, Campo, San Diego County, California. As an archaeological field director, conducted intensive pedestrian survey; responsible for documenting and photographing prehistoric artifact and feature inventories. Lead crews during field evaluation in multiple prehistoric and historic sites, collecting, recording, and photographing artifacts and test pits. As a lab manager, directed the processing of artifacts, cataloging artifacts, site descriptions, Department of Parks and Recreation forms, photographing artifacts and writing sections of the report.

San Marcos High School Monitoring Project, San Marcos Unified School District, San Diego County, California. As archaeologist, conducted field testing of resources encountered during monitoring of rough grading and trenching phases during construction at San Marcos High School.

Third Party Compliance Monitoring for the Tule Wind Project, San Diego County, California. As an archeological compliance monitor, oversaw and implemented compliance assistance to the Bureau of Land Management to ensure adherence to mitigation measures and proper treatment of cultural resources.

Tule Wind Project Surveys, HDR Inc., McCain Valley, San Diego County, California. As an archaeological field director, conducted surveys over 4,900 acres; scheduled and coordinated with Native American monitors; prepared site forms; assisted in producing an ARMR report of findings.

Edwards Air Force Base GEN-TIE Routes Project, Terra-Gen Development Company LLC, Mojave, Kern County, California. As a field director, conducted survey, testing and evaluations for prehistoric and historic archaeological sites identified along the proposed project routes. Managed the laboratory work and analysis and co-authored the project report.

Calcite Solar Project, Lendlease Energy Development LLC, Lucerne Valley, San Bernardino County, California. As an archaeologist, performed test excavations. Recorded and documented artifacts and environmental conditions. Managed the laboratory work consisting of processing artifacts, historic analysis, lithic analysis, curation, identification, photography of artifacts, as well as developing site inventory tables and report writing.

Archaeological Survey and Testing for the Proctor Valley Village 14 & Preserve Project, Jackson Pendo Development, San Diego County, California. As archaeologist, conducted intensive pedestrian survey and field testing for proposed project area. Identified all potential impacts to existing and newly recorded cultural resources.

Verizon Wireless Tower Expansion Project, Aarcher Inc., Federal Communication Commission, Southern California. As senior archaeologist and historian, participated in all levels of Phase I cultural and historical investigations, including but not limited to record searches, Native American Heritage Commission (NAHC) consultation, public awareness notification procedures, field surveys, and Archaeological Resources Management Report (ARMR) report preparation for the construction of new Verizon data towers throughout Southern California counties. The specific tower projects to date include:

- The Saint Clair Tower Project, Van Nuys, Los Angeles County, California
- The Ossierra Tower Project, Palmdale, Los Angeles County, California
- The Wild Pony Tower Project, Fontana, Riverside County, California
- The Merchant Tower Project, Los Angeles, Los Angeles County, California
- The Covington Tower Project, Morongo Valley, San Bernardino County, California

1833 Dragoon Officer's Dress Uniform Assessment, Stabilization, and Long-Term Storage Project, CSP, San Diego County, California. As senior archaeologist, military historian, and project lead, participated in the removal of the dragoon uniform from its display case at the San Pasqual Battlefield Museum. Removed the uniform from the non-standard mannequin, assessed and documented the current conditions of the uniform, and stabilized and prepared the uniform for long-term storage at the California Statewide Museum Collections Center in Sacramento, California.

Palo Verde Wilderness Area Survey Project, United States Department of the Interior (USDI) Bureau of Reclamation, Imperial County, California. As associate archaeologist, participated in survey and site recordation for a Class III, 1,339-acre inventory and condition assessment, and re-evaluation of National Register of Historic Places (NRHP) eligibility of the Palo Verde Point Wilderness Area.

Point Fire Rehabilitation Cultural Resource Survey Project, Bureau of Land Management (BLM), Gooding County, Idaho. As associate archaeologist, conducted a Class III cultural resources inventory and survey of 2,782 acres on BLM lands outside of Twin Falls, Idaho.

San Diego Mission de Alcala Collections Management Project, San Diego County, California. As associate archaeologist, participated in the long-term management of the San Diego Mission artifact collections. Upgraded the archaeological collections to current archival and curation standards.

Eastern Service Area (ESA) Secondary Connection Padre Dam Project, Helix Environmental Planning, San Diego County, California. As associate archaeologist, conducted the field survey and initial evaluations of the proposed property area, prepared a report to summarize the status of knowledge concerning cultural studies in the area, and documented sites for the Padre Dam pipelines.

San Diego Gas and Electric (SDG&E) Pole Brushing Survey, SDG&E, San Diego, Orange, and Imperial Counties, California. As associate archaeologist, conducted monitoring of wood-to-steel power pole replacement and made recommendations for mitigation based on cultural resources found in the project area.

Laguna Fire Monitoring Project, SDG&E, San Diego County, California. As associate archaeologist, conducted initial damage evaluations and monitored all clean-up/repair efforts within the historic community for emergency pole and overhead conductor work and facility restoration during the Chariot Fire on Mount Laguna.

Tule Wind Geotechnical Monitoring and NRHP Nomination Project, Iberdrola Renewables, San Diego County, California. As lead project monitor, coordinated and conducted monitoring for geotechnical work during the field operations of the Tule Wind Project.

Tie-Line 605 Underground Conversion Project, SDG&E, San Diego County, California. As associate archaeologist, conducted archaeological monitoring during grading, trenching, excavation, and conversion activities associated with the undergrounding of existing transmission line 605 in Sherman Heights.

Palomar Station Monitoring Project, Integral Properties, San Diego County, California. As lead project archaeologist, conducted the testing and monitoring during field operations, based on a recommendation from a prior ASM Affiliates cultural resource study. Prepared the initial report for the development of the Palomar Station property.

Outlets at the Border Archaeological Monitoring Project, BRG Consulting, San Diego County, California. As associate archaeologist, conducted the initial resource evaluation and monitoring for the proposed development of the Outlets at the Border. Acted as liaisons for the project client.

El Dorado Parkway Survey and Evaluation Project, Helix Environmental Planning, San Diego County, California. As project archaeologist, led and conducted a 0.55-acre survey and excavated three shovel test pits at the El Dorado Parkway. Prepared the initial evaluation report.

Broadstone Balboa Park Monitoring, San Diego Natural History Museum, San Diego County, California. As lead project archaeologist, conducted both the testing and monitoring during grading in Balboa Park for the proposed project. Prepared the initial report for the development project.

San Diego County Fuels Reduction Parcel Preparation, Environmental Resource Solutions, San Diego County, California. As associate archaeologist, led team of Native American monitors and archaeologists during survey and evaluation of identified County resources along State Route (SR) 78/79 and the Whispering Pines community in Julian, California.

Civita Horizon I Development Phase B/M F Project, Sudberry Properties, San Diego County, California. As associate archaeologist, conducted a records search and performed archaeological monitoring for the Quarry Falls Grading Project. Prepared the initial monitoring report.

Juan and Taylor Streets Pothole Monitoring Project, Atkins, San Diego County, California. As associate archaeologist, conducted cultural resource monitoring and initial project evaluations for potholing of existing underground utilities. Prepared the initial monitoring report.

Soitec–Borrego Springs Desert Greens, RBF Consulting, San Diego County, California. As field director, led the Phase I archaeological survey and evaluation of two off-site improvement corridors for the proposed installation of a concentrated CPV solar farm.

Jacumba Historic Trash Scatters Evaluation Project, SDG&E, San Diego County, California. As associate archaeologist, conducted the preliminary assessment of eligibility under California Environmental Quality Act (CEQA) for historic trash deposits located on three mitigation parcels for the Eco Substation Project.

Mission San Diego de Alcala Trench Test Excavations, Mission San Diego de Alcala, San Diego County, California. As field director, led the subsurface testing, excavation, and evaluation of historic features on the project property. Prepared artifacts for curation and authored the final report.

1625 Newton Avenue Cultural Resource Services Project, B&G Consultants, San Diego County, California. As associate archaeologist, prepared the initial negative monitoring report for the construction monitoring performed for the Monarch School Project.

Silurian Valley West Cultural Resources Study, Iberdrola Renewables, San Bernardino County, California. As field archaeologist, conducted a Class III archaeological survey and inventory for the proposed Silurian Valley West solar energy generation facility.

Goetz Road Monitoring Project, Riverside County Transportation Department, Riverside County, California. As associate archaeologist, prepared the initial negative monitoring report for the archaeological and paleontological monitoring performed during geotechnical grading and earth-movement activities during the realignment of Goetz Road.

Sol Orchard Boulevard B Survey and Evaluation Project, RBF Consulting, San Diego County, California. As field director, led the 105-acre pedestrian survey and excavation testing and evaluation of multiple historic sites for the proposed Sol Orchard area in order to relocate and update site documentation. Prepared the initial project report for the project.

Moonlight Beach Emergency Test Excavations and Monitoring, City of Encinitas, San Diego County, California. As lead project archaeologist, conducted the testing and monitoring during field operations at Moonlight Cove. Authored the initial report for the development project.

Campo Wind Farm Supplemental Inventory Survey Project, AECOM, San Diego County, California. As field director, led a team of Native American monitors and archaeologists during survey of additional areas of the Campo Invenergy in support of the proposed development of a wind farm on the Campo Indian Reservation.

Archaeological Testing of the Urbana (10th Avenue) Apartments, H.G. Fenton Company, San Diego County, California. As lead project archaeologist, conducted cultural resource monitoring and field investigations during grading for the Urbana Project, as recommended by an initial evaluation of the project site. Prepared the initial report for the development project.

PN 15220.08 Sorrento to Miramar Double Track, Task 54 Tunnel Alternatives Survey Project, North County Transit District (NCTD), San Diego County, California. As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project right-of-way (ROW) in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

PN 15220.09 Sorrento to Miramar Double Track Phase 1, Task 47 Test Excavations Project, NCTD, San Diego County, California**.** As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project ROW in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

Naval Auxiliary Landing Airfield SCLI Signage Maintenance Project, Naval Facilities Engineering Command (NAVFAC), Orange County, California. As field archaeologist, assisted with the maintenance of protective signing for over 750 sites on northern and central SCLI in order to keep vehicular traffic and other ground-disturbing activities off marked cultural deposits.

Golden Oasis Exploration Cultural Resources Inventory Project, Enviroscientists, Washoe County, Nevada. As associate archaeologist, conducted a Class III intensive cultural resource inventory for proposed mining exploration on lands administered by BLM in Battle Mountain, Nevada.

Southwestern College Modernization Project, BRG Consulting, San Diego County, California. As associate archaeologist, conducted archaeological monitoring during all earth-movement activities for the modernization of Southwestern College.

North Embarcadero Visionary Plan, Phase 1 Monitoring Project, Atkins, San Diego County, California. As lead archaeological monitor, provided archaeological monitoring during ground-disturbing activities at the project site, as recommended by a previously conducted records search of the project area. Prepared the initial monitoring report.

North Embarcadero Visionary Plan (NEVP) Phase 1 Archaeological Monitoring, San Diego Unified Port, Port of San Diego, San Diego County, California. As associate archaeologist, conducted archaeological monitoring of the NEVP study area.

Sorrento to Miramar Double Track Phase 2, David Evans and Associates, San Diego County, California. As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project ROW in the Cities of Cardiff, Del Mar, and Sorrento Valley.

Jeff Valley Parcels Historic Evaluation Project, SDG&E, San Diego County, California. As field director, led excavations testing and evaluating of multiple historic features on the Jeff Valley parcels to aid in the evaluation of eligibility to the NRHP.

15th and Market Archaeological Testing and Monitoring Project, Holland Construction, San Diego County, California. As field director, led excavations testing and evaluation of multiple historic features on the eastern half of Block 175 in the East Village neighborhood of Downtown San Diego. Conducted archaeological monitoring during project development activities and prepared the initial project report for the proposed development.

Quarry Creek Monitoring Project, McMillin Land Development, San Diego County, California. As lead project monitor, conducted three days of archaeological monitoring during geotechnical drilling on the Panhandle Property and prepared the initial monitoring report.

Rough Acres Ranch Cultural Resources Survey, REC Consultants, San Diego County, California. As field director, led excavations testing and evaluation of multiple historic and prehistoric sites on the Rough Acres Ranch property. Prepared the initial project report for the proposed development.

Carmel Valley Road Widening-T4.3 Project, Hunsaker & Associates, San Diego County, California. As associate archaeologist, conducted the initial resource evaluation for the widening of Carmel Valley Road and acted as liaison for the project client.

PN 17850.02 Bunker Hill Monitoring Project, Gulf South Research Inc., San Diego County, California. As field director, led archaeologists and monitors during the survey and then coordinated the subsequent monitoring of Gulf South Research Inc.'s International Border Fence project at Bunker Hill, adjacent to the CSP Friendship Circle Park located at the U.S.–Mexico International Border.

CSP Friendship Circle Unanticipated Discoveries Project, Gulf South Research Inc., San Diego County, California. As project archaeologist, conducted monitoring and feature evaluation during the remodeling of the CSP's Friendship Circle Park Area and International Border Monument located at CSP Friendship Circle Park along the U.S.–Mexico International Border.

San Marcos High School Monitoring Project, San Marcos Unified School District, San Diego County, California. As lead archaeological monitor, conducted field monitoring during rough grading and trenching phases of construction at San Marcos High School. Acted as point of contact and monitoring coordinator.

Palomar College Data Recovery and Mitigation Monitoring Project, RBF Consulting, San Diego County, California. As field director, led the team of archaeologists and monitors during grading activities in order to mitigate the impact of undiscovered buried cultural resources in the project area and conducted the subsequent data recovery at Palomar Community College North Education Center.

Broadstone Little Italy Archaeological Testing and Monitoring, San Diego Natural History Museum, San Diego County, California. As lead project archaeologist, conducted both the testing and monitoring during field operations and prepared the initial report for the project.

Border Plaza Cultural Resource Monitoring, The Shamrock Group, San Diego County, California. As associate archaeologist, conducted the initial resources study and archaeological monitoring during grading of the proposed Plaza at the Border Project.

Rhodes Crossing Data Recovery Project, Sea Breeze Properties LLC, San Diego County, California. As field director, led excavations testing and evaluating multiple historic and prehistoric sites for the Rhodes Crossing Project. Prepared the initial project report for the proposed development.

University House Archaeological Testing and Monitoring Project, UCSD, San Diego County, California. As field director, led excavations and coordinated Phase I archaeological monitoring associated with the cliff stabilization, construction, and revitalization of the University House on the University of California, San Diego campus.

Archaeological Test Excavation, Monitoring, and Mitigation Project for the Casa de Bandini/Cosmopolitan Hotel in Old Town San Diego State Historic Park, CSP, San Diego, California. As field director, conducted monitoring, testing, and mitigation for the remodeling and restoration of the ca. 1870's Cosmopolitan Hotel. Included test excavations in the interior of the Bandini adobe as well as exterior courtyard and porch.

Archaeological Test Excavation and Mitigation Project for the Seeley Windmill/Stables in Old Town San Diego State Historic Park, CSP, San Diego, San Diego County, California. As field director conducted the monitoring, testing, and mitigation for a multiphased project that included the identification and relocation of two ca. 1870s historic windmill/well locations, the identification of cobble foundations for previously unrecorded historic structures, and general testing for subsurface cultural resources potentially impacted by modern disturbances.

Archaeological Resources Survey for the Melrose Station Market Survey Project, Gatlin Development, Oceanside, San Diego County, California. As field director, conducted a pedestrian survey and wrote the initial project report for the proposed development of the Melrose Station Market.

The Archaeological Test Excavation and Monitoring Project for the Walach and Goldman Square in Old Town San Diego State Historic Park, CSP, San Diego County, California. As field director, conducted monitoring and test excavations to determine the presence or absence of cultural resources in the footprint of new structures and remodeling of the commercial Square.

Archaeological Test Excavation and Monitoring Program at El Fandango Restaurant, Old Town San Diego State Historic Park, CSP, San Diego County, California. As field director, conducted test excavation and monitoring and mitigation for subsurface cultural resources that were impacted by the remodeling of the patio and bathrooms for the restaurant and prepared reporting for the client. This project was unique in that during the discovery of an intact brick floor feature, ASM Associates was able to provide rare feature elevations that help to diagnose other historic events for all of Old Town State Historic Park.

Site Survey, Site Record Evaluations, and Site Documentation Activities for Sea-Based Weapons and Advanced Tactics School (SWATS) 4 and 5 Site Documentation Project, NAVFAC Southwest, NALF SCLI, Los Angeles County, California. As associate archaeologist, participated in the archaeological site survey, site record evaluations, and site documentation activities on SCLI.

Archaeological Evaluation of the Otay Mesa Yamamoto Property, Kearny Real Estate Company, San Diego, San Diego County, California. As field director, conducted archaeological testing and evaluation of a portion of prehistoric site CA-SDI-7208/CA-SDI-7857.

Archaeological Study for the South Lake Park Master Plan, Project Design Consultants, San Marcos, San Diego County, California. As field director, conducted cultural resources survey for the South Lake Park property.

NCTD Bridge Replacement Project Existing Conditions – Cultural and Historical Resources, BRG Consulting for NCTD, San Diego County, California. As associate archaeologist, participated in an evaluation of the existing conditions pertaining to cultural and historical resources within NCTD's project ROW in the Cities of Cardiff and Del Mar and the Sorrento Valley area of the City of San Diego.

Archaeological Site Survey, Site Record Evaluations, and Site Documentation Activities for the Infantry Operational Area (IOA) Site Documentation Project, NAVFAC Southwest, SCLI, Los Angeles County, California. As associate archaeologist, participated in archaeological site survey, site record evaluations, and site documentation activities on central and SCLI.

Cultural Resources Survey of the Tulloch Property, Greystone Environmental, Santa Ysabel, San Diego County, California. As associate archaeologist, helped conduct an intensive survey of the existing and the proposed SDG&E utility corridors on the Tulloch property.

Creekside Sewer Lateral Project, Carter Reese & Associates, San Diego, San Diego County, California. As field director, conducted survey of the proposed Creekside Sewer Lateral to determine the presence or absence of potentially significant cultural resources within both of the project boundaries.

Yuma Pivot Point Survey Project, Yuma, Arizona. As associate archaeologist, participated in ground penetrating radar survey (GPR) for archaeological remains of the Southern Pacific Railroad Bridge across the Colorado River. Prepared for the Yuma Crossing National Heritage Area.

Cultural and Paleontological Resource Study for the Towne Center Project, T&B Planning, City of Perris, Riverside County, California. As field director, conducted a cultural resource study to assess the presence or absence of potentially significant resources within the project boundaries for CEQA compliance.

Extended Phase I Testing at Prehistoric Sites CA-SDI-10879, CA-SDI-10880, and CA-SDI-12155 near Bonsall, California Department of Transportation (Caltrans) District 11, San Diego County, California. As associate archaeologist, participated in the testing of four prehistoric archaeological sites along SR-76 to determine whether or not intact subsurface archaeological deposits were present.

Canyon Trails Cultural Resource Phase I and II Studies, T&B Planning, Hemet, Riverside County, California. As field director, led the testing of 13 prehistoric sites located in Reinhardt Canyon.

Cultural Resources Monitoring for the Babbitt Parcel of the Amber 58 Project, California West Homes, Vista, San Diego County, California. As cultural resource monitor, conducted archaeological monitoring of grading associated with residential development on the project property.

Archaeological Investigations at University House, CA-SDI-4669 (SDM-W-12), University of California at San Diego (UCSD), La Jolla, San Diego County, California. As field director led the geotechnical testing phase of the archaeological investigations. Participated in the Canine Forensic Investigation Phase of the University House Project, which proposed the replacement of the existing University House facility at UCSD.

Cultural Resource Survey of 683 Thunderbird Drive, Western Mutual Development Corporation, Oceanside, San Diego County, California. As field director, administered the archaeological survey of the residence located at 683 Thunderbird Drive in Oceanside.

Cultural Resource Inventory for the San Marcos Creek SPA Project, City of San Marcos, San Diego County, California. As associate archaeologist, participated in cultural resources survey covering over a total of 262 acres conducted for the San Marcos Creek Project.

Extended Phase I Testing for Prehistoric Site SDI-16498, Caltrans District 11, Bonsall, San Diego County, California. As field director, conducted extended Phase I testing at CA-SDI-16498 to determine whether or not an intact subsurface archaeological deposit was present.

Records Search and Field Survey for Orienteering Course, NAVFAC Southwest, Coronado, San Diego County, California. As field archaeologist, surveyed 71 orienteering points used by the U.S. Navy as part of a land navigation training exercise conducted by the Naval Special Warfare Center (NSWC) at Laguna Mountain Recreation Area (LMRA).

Cultural Resources Inventory of Johnson Valley Off-Highway Vehicle (OHV) Recreational Use Area, BLM, San Diego County, California. As field archaeologist, conducted an inventory of approximately 2 km2 maintained by BLM for the Scripps Institutes Calico Fault Seismic Study and authored the subsequent technical report.

Cultural Resources Monitoring for the Hotel Circle South Project, San Diego County, California. As cultural resource monitor, observed ground-disturbing activities for the Hotel Circle South Project.

Archaeological Survey of the Morrison Advanced Mitigation Parcels, Caltrans District 11, Bonsall, San Diego County, California. As field archaeologist, conducted an archaeological inventory of the Morrison Advanced Mitigation Parcels.

Archaeological Survey of the Singh Advanced Mitigation Parcel, Caltrans District 11, Oceanside, San Diego County, California. As field archaeologist, conducted an archaeological inventory of the Singh Advanced Mitigation Parcels.

Archaeological Survey of the Groves Advanced Mitigation Parcels near Bonsall, Caltrans District 11, San Diego County, California. As field archaeologist, conducted an archaeological inventory of the Groves Advanced Mitigation Parcels.

SDI-10723 Data Recovery, NAVFAC Southwest, MCBCP, San Diego County, California. As archaeologist, assisted with identifying and organizing the artifact collection derived from data recovery of prehistoric site SDI-10723.

Historic Mining Context for the Western Barry M. Goldwater Range and Archaeological Inventory of the Historic Fortuna Mine and Campsite, NAVFAC Southwest, Yuma County, Arizona. As associate archaeologist, participated in the historic mining context survey and Class III archaeological survey and recorded features using Trimble GPS technology.

Archaeological Testing and Evaluation of Four Sites for the Dual Magnet High School Project, Vista Unified School District, San Diego County, California. As field director, conducted test evaluations at four sites potentially impacted by the proposed development of the new Dual Magnet High School. In the lab, supervised the processing, cataloging, analysis, and curation of artifacts recovered during the testing; authored technical report.

Archaeological Survey of the Ridge Creek Property, Leising Builders, Fallbrook, San Diego County, California. As field director, conducted cultural resource survey of the Ridge Creek Property. The project involves the subdivision of a 30.36-acre lot into 14 lots at a minimum of 2.0 acres per lot.

Phase I Cultural Resource Survey of 2,500 Acres in Four Priority Areas, EAFB, Kern and Los Angeles counties, California. As associate archaeologist, participated in Class III cultural resources survey and inventory of approximately 2,500 acres in four “priority areas” located on Mercury Boulevard at the center of EAFB and adjacent to Rogers Dry Lake.

Archaeological Data Recovery for the Hard Rock Hilton, 5th Rock LLP for Centre City Development Corporation, Downtown San Diego, California. As archaeologist, assisted with organizing the artifact collection derived from data recovery of historic features identified during construction monitoring.

Viejas Northwest Grade Evaluation Project, Viejas Band of Kumeyaay Indians, Alpine, San Diego County, California. As field crew, conducted excavation of sites along the northwestern boundary of the Viejas Indian Reservation. Assisted with the collection and processing of artifacts.

Archaeological Survey of the Lee Lake Expansion Project, Lee Lake Water District, Riverside County, California. As field director, conducted archaeological survey of the Lee Lake Reservoir in Riverside County. Coordinated with principal investigator and conducted an additional site visit accompanied by a member of the Pechanga Band of Mission Indians.

Data Recovery Excavations at CA-SDI-16691, SVP Jackson Pendo Development Company, Escondido, San Diego County, California. As field archaeologist, conducted data recovery to mitigate impacts to prehistoric site SDI-16691.

Archaeological Testing and Evaluation of CA-SDI-16069 and CA-SDI-17526, BRG Consulting Inc., San Diego County, California. As field archaeologist, conducted testing to determine the extent and character of potentially significant prehistoric resources situated within the Viejas Indian Reservation on property owned in fee by the Tribe.

Testing and Evaluation of Site CA-SDI-11021 for the Proposed Tecolote Canyon Wetlands Mitigation Project, City of San Diego Metropolitan Wastewater Department, San Diego County, California. As field archaeologist, conducted testing to determine the extent and character of potentially significant prehistoric and historic resources within the Tecolote Canyon Wetlands.

Archaeological Monitoring for the Los Penasquitos North Wetland Creation Project, City of San Diego Metropolitan Wastewater Department, San Diego County, California. As cultural resource monitor, observed ground-disturbing activities for the Los Penasquitos North Wetland Creation Project.

Archaeological Monitoring of CA-SDI-10148, Caltrans District 11, Santee, San Diego County, California. As cultural resource monitor, observed ground-disturbing activities near known archaeological sites partially contained within the Forester Creek biological mitigation site.

Archaeological Testing and Evaluation at Two Sites, CA-SDI-222 (Monument Mesa Site) and CA-SDI-4281 (Lichty Mesa Site), Border Field State Park, CSP, San Diego County, California. As field archaeologist, determined the extent and character of two potentially significant prehistoric resources during evaluation.

Archaeological Survey of Military Family Housing (MFH) Site 8, NAVFAC Southwest, Marine Corps Air Station (MCAS) Miramar, San Diego County, California. As field archaeologist, conducted an archaeological survey at the MFH Site 8 housing area and within areas proposed for development as an access road. Although a portion of the housing project area had been previously surveyed, the area was subsequently burned and the State Historic Preservation Office (SHPO) required additional surveying due to improved visibility. The access road alignment had not been set, and the survey was used in a constraints analysis.

Historical Resources Survey of Black Mountain Open Space Park, City of San Diego, San Diego County, California. As field archaeologist, conducted a cultural resources inventory of this 1,314-acre city park. Assisted with extensive research on the Black Mountain Mine, located on the north slope of the mountain. The project is being conducted to prepare a NRHP mining district nomination form for remnants of the mining operation still existing on-site.

Cultural Resources Survey for a Fuel Reduction Project in the Julian Area, Atkins, San Diego County, California. As field archaeologist, conducted a field survey along five major roadways near the town of Julian: SR-79 from Julian to Lake Cuyamaca, SR-78 from Santa Ysabel to Julian, SR-78 Banner Grade/Whispering Pines, SR-79 South, and Sunrise Highway. The project area consisted of a 200-foot corridor on both public and private lands along both sides of these roads. Four previously recorded sites and 16 newly discovered sites were identified as being near or within areas proposed for tree removal.

Archaeological Testing and Evaluation for the Tank Farm MILCON Project, Shaw Environmental for NAVFAC Southwest, Navy Base Point Loma, San Diego County, California. As field archaeologist, assisted with delineating, recording, and assessing the integrity of a prehistoric locus uncovered by erosion from heavy rains in 2004–2005. Helped to evaluate the integrity and NRHP significance of the site in compliance with Section 106 of the NHPA.

Archaeological Survey of the Lakeland Reservoir, Atkins, Riverside County, California. As field director, conducted survey of the project and identified five historic structures slated for demolition within the proposed project area, including a private ca. 1920s residence located at 17255 Encina Drive, the Adelfa Reservoir, the Encina Pump Station, the Cottrell Reservoir, and the Cottrell Pump Station.

Phase II Test Excavations at Six Sites in the Lavic Lake Training Area, MCAGCC, Twentynine Palms, San Bernardino County, California. As field archaeologist, conducted Phase II test excavations and evaluation of five prehistoric habitation sites and one lithic quarry located south and east of Lavic Lake.

Phase I Cultural Resources Survey of 2,000 Acres in the South Range, Epsilon Systems Solutions, Naval Air Weapons Station (NAWS) China Lake, Ridgecrest, Inyo County, California. As field archaeologist, surveyed 2,000 acres in a rugged portion of the South Range at NAWS. Documented 21 archaeological sites, including prehistoric rockshelter habitations, lithic scatters, isolated rock features, and a historic fence.

Phase I Cultural Resources Survey of 1,640 Acres in the Quackenbush Training Area, MCAGCC Twentynine Palms, San Bernardino County, California. As field archaeologist, conducted Class III survey of 1,640 acres in a relatively disturbed area of the Quackenbush training area. Documented three small lithic quarry sites.

Phase I Inventory of 1,100 Acres and Phase II Evaluation of Archaeological Sites along the Western and Northwestern Base Boundaries, EAFB, Kern County, California. As field archaeologist, conducted a Class III inventory of 1,100 acres. Documented 40 new archaeological sites, more than a dozen "submodern" refuse dumps, and a variety of isolated finds. Conducted excavations revealing intact prehistoric sites with relatively low data potential and historic sites impacted by illegal activities, though retaining good data potential.

All-American Canal Lining Project Survey, Imperial Irrigation District, Imperial County. As field archaeologist, conducted a large-scale Class II and III inventory and random sample survey. Completed survey of the 4,200-acre ROW along approximately 23 miles of the All-American Canal. Conducted a 10% random sample survey that encompassed an additional 743 acres. This project was undertaken for use in planning the placement of quarrying and staging areas for the proposed canal lining project.

Archaeological Survey of the Miramontes Road Property, Helix Environmental, Jamul, San Diego County, California. As field director, conducted archaeological survey of the 19-acre project area. One large habitation site was identified during survey and documented. Prepared an ARMR-format report for submission to the County of San Diego.

San Vicente Emergency Storage Project Cultural Resources Survey, Atkins, San Diego County Water Authority (SDCWA), San Diego County, California. As field archaeologist, assisted with a cultural resources study of the San Vicente Reservoir, which the SDCWA proposes to expand by adding height to the existing dam, resulting in the inundation of additional land. Compiled expanded field survey information for evaluation of potential impacts to NRHP-eligible sites within the project area of potential effect (APE).

Archaeological Monitoring for the Agua Hedionda Lagoon Bridge Replacement, NCTD, Carlsbad, San Diego County, California. As archaeological monitor, observed construction during replacement of the railroad bridge over Agua Hedionda Lagoon in Carlsbad. Coordinated with construction and railway personnel. Certified to survey along railways.

Evaluation of 30 Sites in the Quackenbush Range, TEC Inc., MCAGCC, Twentynine Palms, San Bernardino County, California. As field archaeologist, conducted archaeological excavation of 30 sites within the Quackenbush training area. Assisted with mapping and surface collection of artifacts and artifact processing.

Pankey Ranch Test Excavations, Pardee Homes, San Diego County, California. As field archaeologist, conducted archaeological excavation of an ethnohistoric village located near Bonsall. Observed the excavation of backhoe trenches for testing of the site.

Coachella Canal Data Recovery, Coachella Valley Water District, Riverside County, California. As field archaeologist, conducted data recovery on two prehistoric fish camp sites located on the relic shoreline of ancient Lake Cahuilla that are expected to be impacted by the Coachella Canal Lining Project. Project conducted on lands administered by USDI Bureau of Reclamation.

Caltrans TEA21 Rural Roadside Inventory, Caltrans District 11, San Diego County, California. As field archaeologist, participated in survey of 121 miles of rural roads in eastern San Diego County including SR-76, SR-78, and SR-79. Prepared field mapping and site forms. Thirty-five sites were recorded or updated during the survey.

Archaeological Monitoring for the Lillian Place Apartments, Wakeland Housing and Development, Downtown San Diego, California. As archaeological monitor, observed earthmoving activities for the demolition of three historic buildings and excavation for subsurface utilities at 13th and K Streets in Downtown San Diego.

Extended Phase I Investigations of Archaeological Sites along SR-76, Caltrans District 11, Bonsall, San Diego County, California. As field archaeologist, investigated a series of prehistoric archaeological sites along the ROW between the Bonsall Bridge and Interstate 15. Conducted site survey, mapping, and testing in compliance with Section 106.

NBPL Site Recordation, Commander Navy Region Southwest, Point Loma, San Diego County, California. As field archaeologist, relocated 33 sites on NBPL. Reviewed site documentation and rerecorded sites that were improperly documented by past surveys.

Data Recovery of Locus O, Star Canyon Development, Agua Caliente Band of Cahuilla Indians, Palm Springs, Riverside County, California. As field archaeologist, conducted data recovery mitigation of an archaeological deposit and human remains near Tahquitz Canyon.

Cultural Resource Survey for a Fuel Reduction Project on Palomar Mountain, Atkins, San Diego County, California. As field archaeologist conducted survey along three roads on Palomar Mountain. Surveyed a 200-foot corridor on both public and private lands. Identified four previously recorded sites and one newly discovered site near or within areas proposed for tree removal.

Coachella Canal Replacement Monitoring Program, Bureau of Reclamation and the Coachella Valley Water District, Riverside County, California. As cultural resource monitor, observed ground-disturbing activities near known archaeological sites. Conducted two supplemental surveys, recorded newly found prehistoric sites, performed preliminary significance evaluations, and coordinated with contractors to avoid adverse impacts.

Las Pulgas Corridor Testing, NAVFAC Southwest, MCBCP, California. As field archaeologist, conducted test excavations of 22 hunter–gatherer archaeological sites. Mapped and documented prehistoric sites including shell middens, lithic scatters, and bedrock milling stations. Assisted with geotechnical coring of a prehistoric shell midden (SDI-812/H) to identify and examine previously recorded site boundaries.

Bishop's School Expansion Project Monitoring, CDM Miller for Rudolph and Sletten, La Jolla, San Diego County, California. As cultural resources monitor, evaluated construction of new buildings and facilities at an historic school located in downtown La Jolla. A number of historic trash deposits were identified and evaluated.

Rose–Arizone, Clay, and Photo Drainage and Road Improvement Surveys, NAVFAC Southwest, SCLI, Los Angeles County, California. As field archaeologist, conducted archaeological surveys and assisted with the erection of protective signing on 750 sites.

SCLI Remote Sensing, NAVFAC Southwest, SCLI, Los Angeles County, California. As GPS assistant, helped with data collection and image rectification for a remote sensing project in the detection of archaeological sites on the base.

Eucalyptus Site Data Recovery Project, Caltrans District 11, Chula Vista, San Diego County, California. As field technician, participated in data recovery excavations of an early Archaic period site.

All-American Canal Lining Project Survey, Imperial Irrigation District, Imperial County. As field archaeologist, conducted survey of the 4,200-acre ROW along approximately 23 miles of the All-American Canal. Task 2 involved a 10% random sample survey that encompassed an additional 743 acres.

Locus O Testing, Agua Caliente Band of Cahuilla Indians, Palm Springs, Riverside County, California. As field archaeologist, conducted data recovery excavations of three spatially distinct portions of the prehistoric site, including an intact cremation for proposed housing development.

Salt Creek Ranch Data Recovery, McMillin Companies, Chula Vista, San Diego County, California. As field archaeologist, conducted testing and data recovery excavations of two historic sites and three prehistoric sites at a proposed housing development location. Documented and mapped historic sites and historic period features, including structural remains.

Spangler Hills Survey Project, BLM, Ridgecrest, San Bernardino County, California, 2003. As field archaeologist, participated in survey and inventory of approximately 10,000 acres of the Spangler Hills Area of Critical Environmental Concern (ACEC).

Path 15 Survey, Steigers Corporation, Merced and Fresno Counties, California. As field archaeologist, conducted archaeological survey of proposed transmission line. Identified two prehistoric lithic scatters and conducted preliminary subsurface testing of two additional lithic scatters. Recorded one historic period site.

PF.Net AT&T Monitoring, Land Services, MCBCP, San Diego County, California. As field archaeologist, conducted archaeological monitoring for construction installation of over 10 linear miles of fiber optic line on MCBCP.

Appendix E

Artifact Catalog

CAT	SITE	LOC	CONC	RTYPE	UNO	USIZE	TOPLEV	BOTLEV	SCREEN	CLASS	OBJECT	MAT	COND	CT	WT	DISCARDED?	BOX NO	COMMENTS
1	P-37-000687			STP	STP-3	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	1	1.05	FALSE		UNDIFF
2	P-37-000687			STP	STP-3	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	3	0.2	FALSE		UNDIFF
3	P-37-000687			STP	STP-2	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	8	9.82	FALSE		UNDIFF
4	P-37-000687			STP	STP-8	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	7	2.46	FALSE		UNDIFF
5	P-37-000687			STP	STP-1	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	4	1.72	FALSE		UNDIFF
6	P-37-000687			STP	STP-4	0.5m x 0.25m	40	60	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	7	1.97	FALSE		UNDIFF
7	P-37-000687			STP	STP-4	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	4	1.24	FALSE		OYSTER SP.-- (Ostrea Lurida)
8	P-37-000687			STP	STP-4	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	41	3.79	FALSE		UNDIFF
9	P-37-000687			STP	STP-4	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	6	5.2	FALSE		CHIONE SP
10	P-37-000687			STP	STP-4	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	2	0.62	FALSE		RAZOR CLAM--Siliqua patula
11	P-37-000687			STP	STP-4	0.5m x 0.25m	0	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	10	2.64	FALSE		PECTIN SP
12	P-37-000687			STP	STP-4	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	62	11.52	FALSE		UNDIFF
13	P-37-000687			CU	CU-1	1m x 1m	0	10	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	3	1.25	FALSE		OYSTER-(Ostrea Lurida)
14	P-37-000687			CU	CU-1	1m x 1m	0	10	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	2	0.99	FALSE		WHELKS--Cerithideopsis californica
15	P-37-000687			CU	CU-1	1m x 1m	0	10	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	2	1.78	FALSE		PECTIN SP
16	P-37-000687			CU	CU-1	1m x 1m	0	10	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	10	2.66	FALSE		UNDIFF
17	P-37-000687			CU	CU-1	1m x 1m	0	10	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	3	2.39	FALSE		CLAMS (WASHINGTON--Saxidomus nutalli)
18	P-37-000687			CU	CU-1	1m x 1m	10	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	1	4.37	FALSE		CLAMS (WASHINGTON--Saxidomus nutalli)
19	P-37-000687			CU	CU-1	1m x 1m	10	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	3	0.71	FALSE		PECTIN SP
20	P-37-000687			CU	CU-1	1m x 1m	10	20	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	17	2.11	FALSE		UNDIFF
21	P-37-000687			STP	STP-6	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	26	2.55	FALSE		UNDIFF
22	P-37-000687			STP	STP-6	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	4	1.64	FALSE		WHELKS--Cerithideopsis californica
23	P-37-000687			STP	STP-6	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	12	4.57	FALSE		PECTIN SP
24	P-37-000687			STP	STP-6	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	9	7.6	FALSE		CLAMS SP (WASHINGTON--Saxidomus nutalli)
25	P-37-000687			STP	STP-6	0.5m x 0.25m	20	40	1/8"	Faunal	Invertebrate Remains	Shell	Fragment	7	3.14	FALSE		OYSTER SP. (Ostrea Lurida)