

Appendix C

Cultural Resources Survey Report

Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project

Cultural Resources Survey Report

October 2025 | 02230.00016.001

Submitted to:

The City of Carlsbad
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Report Date:	October 2025
Report Title:	Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project, City of Carlsbad, San Diego County, California
Submitted to:	City of Carlsbad
Type of Study:	Cultural Resources Survey
New Sites:	None
Updated Sites:	None
USGS Quad:	Encinitas 7.5' Quadrangle
Acreage:	Approximately 9.85 acres
Key Words:	City of Carlsbad, San Diego County; Township 12 South, Range 4 West; Avenida Encinas; Palomar Airport Road; Poinsettia Coaster Station Driveway; negative archaeological survey

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMSL	above mean sea level
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of Carlsbad
CRHR	California Register of Historical Resources
CRT	Coastal Rail Trail
HELIX	HELIX Environmental Planning, Inc.
I	Interstate
LOSSAN	Los Angeles-San Diego-San Luis Obispo
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
SCIC	South Coastal Information Center
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

Nasland Engineering contracted HELIX Environmental Planning, Inc. (HELIX) to conduct a cultural resources study for the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project (project) in the City of Carlsbad (City), San Diego County, California. The project is located along Avenida Encinas from Palomar Airport Road in the north to a point just south of the Poinsettia Coaster Station Driveway in the south. Proposed improvements include a Class II bike lane along both sides of Avenida Encinas, roadway widening, new pavement, new sidewalks, curb ramps, center landscaped medians, landscaping, biofiltration swales, lighting, fencing, and retaining walls. HELIX conducted a cultural resources study, including a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and a pedestrian survey for the project area. This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

The records search conducted at the South Coastal Information Center (SCIC) on July 12, 2023, indicated that 80 previous cultural resources studies have been conducted within one half-mile of the project area, 18 of which included all or a portion of the project area. The records search results also indicated that a total of 22 cultural resources have been previously recorded within one half-mile of the project area; however, no cultural resources have been recorded within the project area itself.

Additional archival research of aerial photographs and historical topographic maps shows that the project area was subject to agricultural activity since at least the 1880s, and Avenida Encinas was established by 1967; however, the depth of past disturbance is unknown. The majority of the surrounding area has been developed for commercial and residential use over the past five decades.

HELIX contacted the Native American Heritage Commission (NAHC) on July 12, 2023, to request a Sacred Lands File search and a list of tribal contacts. The results, received on July 31, 2023, indicated that there are no tribal resources recorded within the project vicinity. HELIX sent letters to the tribal contacts provided on January 16, 2024. As of the date of this report, two responses have been received from the Rincon Band of Luiseño Indians and the San Pasqual Band of Mission Indians expressing concerns and requesting to consult. If additional tribal responses are received, they will be provided to City staff.

The field investigations included an intensive pedestrian survey of the project area by a HELIX archaeologist and a Luiseño Native American monitor on July 28, 2023. The survey did not result in the identification of any cultural material within the project area.

Based on the results of the current study, no known cultural resources would be affected by the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project. However, due to the presence of deep alluvium soils, which have the potential to yield buried cultural resources, and the unknown depth of past ground disturbance, it is recommended that initial ground-disturbing activities be monitored by a qualified archaeologist and a Native American monitor. The monitoring program would include attendance by the archaeologist and Native American monitor at a preconstruction meeting with the grading contractor and the presence of archaeological and Native American monitors during ground-disturbing activities in undisturbed soils on site. Both archaeological and Native American monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. If significant cultural material is encountered, the project archaeologist and monitoring tribe will coordinate with the applicant and City staff to develop and implement appropriate treatment or mitigation measures.

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1.0 INTRODUCTION

Nasland Engineering contracted HELIX Environmental Planning, Inc. (HELIX) to provide cultural resources services for the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project (project) in the City of Carlsbad (City), San Diego County, California. The project proposes to install improvements along Avenida Encinas, including a Class II bike lane along both sides of Avenida Encinas, roadway widening, new pavement, new sidewalks, curb ramps, center landscaped medians, landscaping, biofiltration swales, lighting, fencing, and retaining walls. HELIX conducted a cultural resources study, including a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and a pedestrian survey for the project area. This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

1.1 PROJECT LOCATION

The project is located in the City of Carlsbad in northwestern San Diego County, a short distance west of Interstate (I-) 5 (Figure 1, *Regional Location*). The project is located in the southeastern quarter of Section 20 and the northeastern quarter of Section 29, Township 12 South, Range 4 West, on the U.S. Geological Survey (USGS) 7.5' Encinitas quadrangle (Figure 2, *USGS Topography*). The approximately 9.85-acre project alignment extends along Avenida Encinas from Palomar Airport Road in the north to a point just south of the Poinsettia Coaster Station Driveway in the south (Figure 3, *Aerial Vicinity*).

1.2 PROJECT DESCRIPTION

The City of Carlsbad proposes to construct roadway, bikeway, and pedestrian improvements along an approximately one-mile segment of Avenida Encinas between Palomar Airport Road and a point just south of the Poinsettia Coaster Station Driveway in the western portion of the City. The project alignment is situated between Interstate 5 and the Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor and is entirely within the Coastal Zone.

Proposed improvements would entail implementation of Reach 5 of the city's portion of the Coastal Rail Trail (CRT), a planned regional bicycle route that runs approximately 42 miles between Oceanside and Santa Fe Depot in Downtown San Diego. Various segments of the CRT have been constructed in Oceanside, Carlsbad, and Encinitas, including Reach 1 (along Carlsbad Boulevard from State Street to the northern city boundary over Buena Vista Lagoon) and Reach 2 (between Tamarack Avenue and Oak Avenue) in Carlsbad. In addition, in 2024, the city completed another portion of the CRT south of the project and along Avenida Encinas between Poinsettia Lane and Windrose Circle. This portion of the CRT proposed by the project, Reach 5 (from Palomar Airport Road to a point just south of the Poinsettia Coaster Station Driveway), would include a Class II bike lane along both sides of Avenida Encinas, consisting of a six-foot-wide striped bike lane within the roadway. Other improvements would include roadway widening, new pavement, new sidewalks, curb ramps, center landscaped medians, landscaping, biofiltration swales, lighting, fencing, and retaining walls.

The project alignment occurs within a developed area comprised of commercial, industrial, transportation, and residential land uses. The majority of the project site is composed of developed land and disturbed habitat, with relatively small areas of wetland and native upland habitats. Surrounding

land uses include Palomar Airport Road to the north; North County Transit District railroad right-of-way to the west; the Poinsettia Coaster Station to the south; and a gas station, business parks, car dealership, a wastewater treatment plant, and undeveloped land to the east. Figure 1 shows the regional location of the project, Figure 2 depicts the project site on a USGS topographical map, and Figure 3 consists of an aerial photograph of the project site and surroundings, along with the proposed alignment.

1.3 PROJECT PERSONNEL

Mary Robbins-Wade, M.A., R.P.A., served as the principal investigator and provided project oversight and senior technical review. Nicole Falvey, B.A., acted as project manager and co-authored this report. Jessica Garcia, B.A., conducted the field survey. Resumes of key HELIX personnel are included as Appendix A. Luiseño Native American monitor Aleshanee Ventura from Saving Sacred Sites (San Luis Rey Band of Mission Indians) participated in the survey.

1.4 REGULATORY FRAMEWORK

1.4.1 Federal

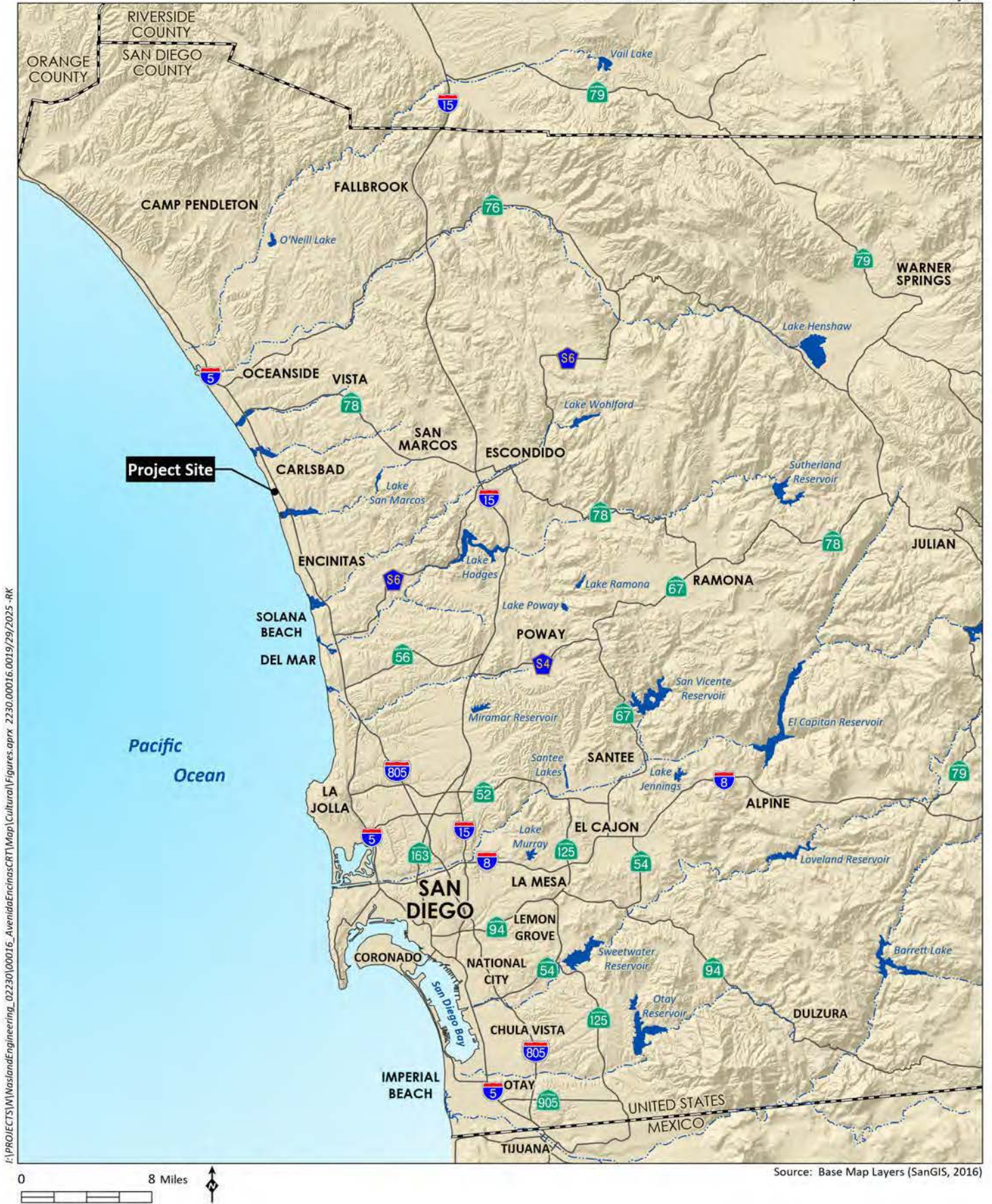
If there is a federal nexus for the project (e.g., permitting or funding from a federal agency), regulations that would be applicable to the project consist of the NHPA and its implementing regulations (16 United States Code 470 et seq., 36 Code of Federal Regulations [CFR] Part 800). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on “historic properties”, that is, properties (either historic or archaeological) that are eligible for the National Register of Historic Places (NRHP). To be eligible for the NRHP, a historic property must be significant at the local, state, or national level under one or more of the following four criteria:

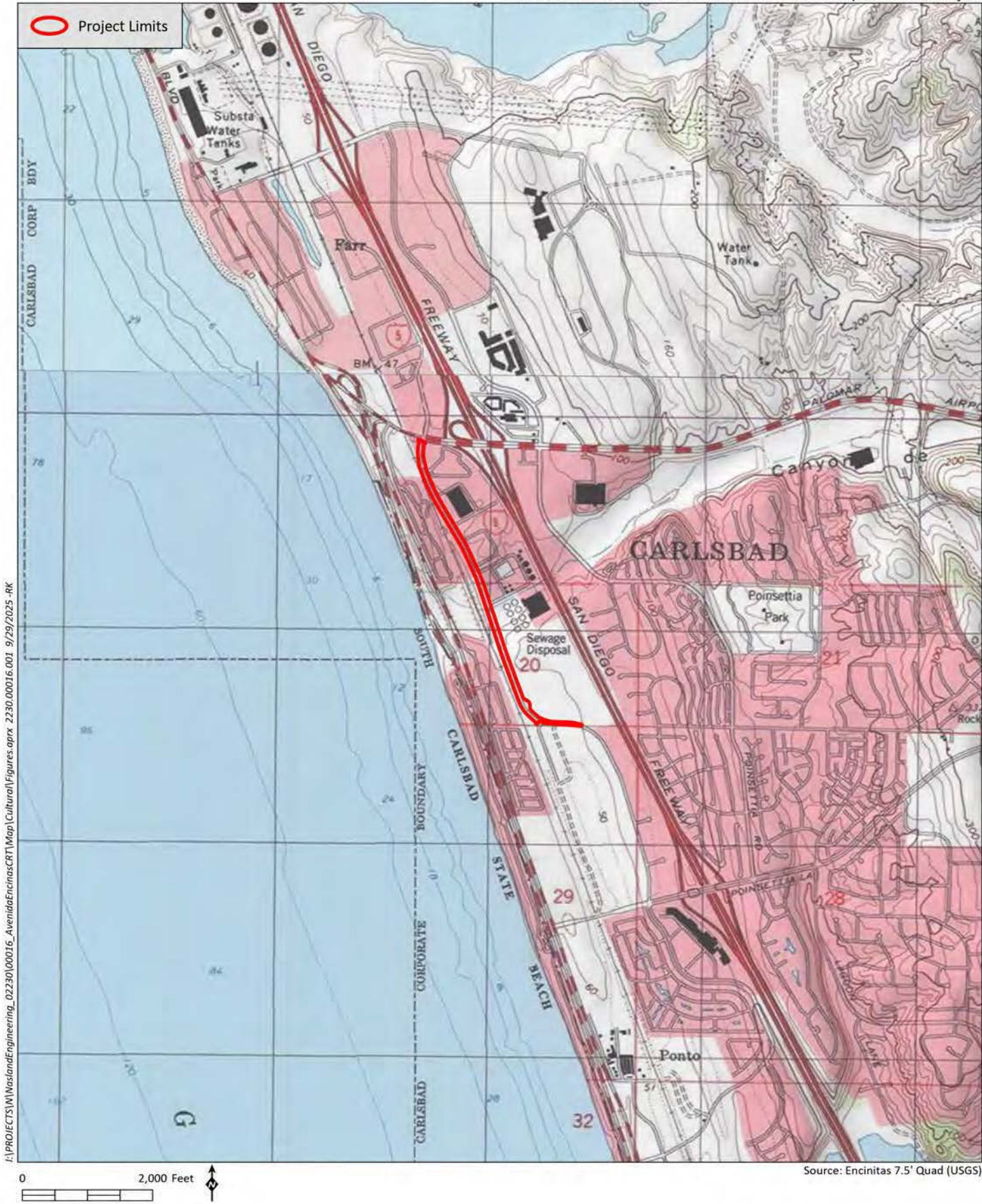
- A. associated with events that have made a significant contribution to the broad patterns of our history;
- B. associated with the lives of persons significant in our past;
- C. embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- D. has yielded or may be likely to yield, information important in prehistory or history.

1.4.2 State

The CEQA, Public Resources Code (PRC) 21084.1, and California Code of Regulations (CCR) Title 14 Section 15064.5, address determining the significance of impacts to archaeological and historic resources and discuss significant cultural resources as “historical resources,” which are defined as:

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR; 14 CCR Section 15064.5[a][1])





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- resource(s) either listed in the NRHP or in a “local register of historical resources” or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless “the preponderance of evidence demonstrates that it is not historically or culturally significant” (14 CCR Section 15064.5[a][2])
- resources determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3])

For listing in the CRHR, a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;
4. It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

Under 14 CCR Section 15064.5(a)(4), a resource may also be considered a “historical resource” for the purposes of CEQA at the discretion of the lead agency.

Significant resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Resource integrity, which is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance, is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful spatial relationships. A resource must also be judged with reference to the particular CRHR criteria under which it is proposed for eligibility.

1.4.3 City of Carlsbad

In 1990, the City developed guidelines for the treatment of cultural resources. The guidelines were consistent with the cultural and historical resource guidelines set forth by the NHPA, as amended, and CEQA, established standards of performance for resource investigation, and presented a systematic method of preserving identified resources. Carlsbad City Council Policy No. 83, adopted in 2016, called for the City to: “recognize [the City’s] responsibility to protect with improved certainty the important historical and cultural values of current Tribal Cultural Resources within the City limits and to establish an improved framework for the City’s consultations with Native American Tribes that are traditionally and culturally affiliated with the City of Carlsbad, including the San Luis Rey Band of Mission Indians.”

In 2017, updated Tribal, Cultural and Paleontological Guidelines were released to address the regulatory changes and the addition of new procedures to address additional requirements that had emerged since 1990. The guidelines provide a framework for the roles and responsibilities of those responsible for

compliance with the Guidelines and provide the processes by which cultural resources are assessed under the Guidelines.

1.4.3.1 City of Carlsbad General Plan

The goals and policies detailed in the City’s General Plan “Arts, History, Cultural, and Education Element” section are as follows:

Goal 7-G-1: Recognize, protect, preserve, and enhance the city’s diverse heritage.

Policy 7-P.1 Prepare an updated inventory of historic resources in Carlsbad, with recommendations for specific properties and districts to be designated in national, state, and local registries, if determined appropriate and with the agreement of the property owners.

Policy 7-P.2 Encourage the use of regional, state, and federal programs that promote cultural preservation to upgrade and redevelop properties with historic or cultural value. Consider becoming a participant in the Mills Act tax incentive program.

Policy 7-P.5 Encourage the rehabilitation of qualified historic structures through the application of the California Historical Building Code.

Policy 7-P.6 Ensure compliance with the City of Carlsbad Cultural Resource Guidelines to avoid or substantially reduce impacts to historic structures listed or eligible to be listed in the National Register of Historic Places or the California Register of Historical Resources.

Policy 7-P.7 Implement the City of Carlsbad Cultural Resources Guidelines to avoid or substantially reduce impacts to archaeological and paleontological resources.

Policy 7-P.8 During construction of specific development projects, require monitoring of grading, ground-disturbing, and other major earth-moving activities in previously undisturbed areas or in areas with known archaeological or paleontological resources by a qualified professional, as well as a tribal monitor during activities in areas with cultural resources of interest to local Native American tribes. Both the qualified professional and tribal monitor shall observe grading, ground-disturbing, and other earth-moving activities.

Policy 7-P.9 Ensure that treatment of any cultural resources discovered during site grading complies with the City of Carlsbad Cultural Resource Guidelines. Determination of the significance of the cultural resource(s) and development and implementation of any data recovery program shall be conducted in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated. The final disposition of artifacts not directly associated with Native American graves shall be negotiated during consultation with interested tribes; if the artifact is not accepted by Native American tribes, it shall be offered to an institution staffed by qualified professionals, as may be determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring.

Policy 7-P.10 Require consultation with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information Systems [CHRIS], the

Native American Heritage Commission [NAHC], and Native American groups and individuals) to minimize potential impacts to cultural resources that may occur as a result of a proposed project.

Policy 7-P.11 Before occupancy of any buildings, a cultural resource monitoring report identifying all materials recovered shall be submitted to the City Planner.

Goal 7-G.2: Make Carlsbad's history more visible and accessible to residents and visitors.

Policy 7-P.3 Formalize a program of historical markers/plaques at resources in state and national registers or of local importance.

Policy 7-P.4 Promote community education of historic resources, integration, and celebration of such resources as part of community events:

- a. Enhance the community's recognition that objects of historic importance increase both fiscal and community value.
- b. Promote the use of historic resources for the education, pleasure, and welfare of the people of the City. Cooperate with historic societies, schools, libraries, parks, and community members to stimulate public interest in historic preservation.
- c. Maintain historical reference materials on file at the Carlsbad City Library.

1.4.3.2 City of Carlsbad Municipal Code

Section 22.06.020 of the City's Municipal Code includes the following criteria for cultural resource assessment:

- A. A historic resource may be considered and approved by the council for inclusion in the historic resources inventory based on one or more of the following:
- B. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering or architectural history; or
- C. It is identified with persons or events significant in local, state, or national history; or
- D. It embodies distinctive characteristics of a style, type, period, or method of construction, is a valuable example of the use of indigenous materials or craftsmanship or is representative of a notable work of an acclaimed builder, designer, or architect; or
- E. It is an archaeological, paleontological, botanical, geological, topographical, ecological, or geographical site, which has the potential of yielding information of scientific value; or
- F. It is a geographically definable area with a concentration of buildings, structures, improvements, or objects linked historically through location, design, setting, materials, workmanship, feeling, and/or association, in which the collective value of the improvements may be greater than the value of each individual improvement. (Ord. NS-433 §3, 1997; Ord. NS-141 §5, 1991; Ord. 9776 §1, 1985).

1.4.3.3 Local Coastal Program

The project is located in the Mello II segment of the City's Local Coastal Program. The following archaeological policy is provided for the Mello II segment of the City's Coastal Zone:

- The environmental impact review process will determine where development will adversely affect archaeological and paleontological resources. A site-specific review should also determine the most appropriate methods for mitigating these effects. Most importantly, the City of Carlsbad should require the implementation of these measures.

1.4.4 Native American Heritage Values

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties (TCP) in discussions of cultural resource management performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Cultural resources can include TCPs, such as gathering areas, landmarks, and ethnographic locations, in addition to archaeological districts. Generally, a TCP may consist of a single site, or group of associated archaeological sites (district or traditional cultural landscape area), or an area of cultural/ethnographic importance.

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American Tribes during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance. State Assembly Bill (AB) 52, effective July 1, 2015, introduced the Tribal Cultural Resource (TCR) as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. As a general concept, a TCR is similar to the federally defined TCP; however, it incorporates consideration of local and state significance and the required mitigation under CEQA. A TCR may be considered significant if included in a local or state register of historical resources; or determined by the lead agency to be significant pursuant to criteria set forth in PRC §5024.1; or is a geographically defined cultural landscape area that meets one or more of these criteria; or is a historical resource described in PRC §21084.1, a unique archaeological resource described PRC §21083.2; or is a non-unique archaeological resource if it conforms with the above criteria.

2.0 PROJECT SETTING

2.1 NATURAL SETTING

The project area is situated within the coastal province of northwestern San Diego County, where the climate is characterized as semi-arid steppe, with warm, dry summers and cool, moist winters, but lacking in the precipitation found within the Mediterranean climate within the peninsular range province of the County (Pryde 2004). The project is located north of Batiquitos Lagoon and has a natural drainage running through it along Canyon de las Encinas. Elevations within the project area range between 31 feet above mean sea level (AMSL) at the Canyon de las Encinas crossing to 71 feet AMSL at the northern terminus.

Geologically, the project area is underlain by alluvial floodplain deposits dating to the late Holocene around Canyon de las Encinas and very old paralic deposits dating to the middle to early Pleistocene within the rest of the project area (Kennedy and Tan 2007). Three soil types are mapped within the project area, including Huerhuero loam, 2 to 9 percent slopes; Marina loamy coarse sand, 2 to 9 percent slopes; and tidal flats (Natural Resources Conservation Services 2024). Huerhuero loam covers the northern half of the project alignment from Palomar Airport Road to approximately 0.55 mile south. Huerhuero soils consist of moderately well-drained loams with a clay subsoil that are formed in alluvium derived from material weathering from sandstone and other sedimentary rocks and would generally support a variety of non-native species, as well as annual grasses and forbs (Bowman 1973). Marina loam covers the majority of the southern portion of the project alignment, from Poinsettia Coaster Station Driveway in the south approximately 0.3 mile northward. Marina soils consist of excessively well-drained loamy coarse sand that gives way to loamy sand at 10 to 57 inches below the surface and to sand at 57 to 30 inches below the surface (Natural Resources Conservation Service 2024). This soil series supports chamise, sumac, sagebrush, flattertop buckwheat, and annual grasses and forbs (Bowman 1973). Tidal flats cover a small portion of the project alignment around the Canyon de las Encinas, where a small drainage runs, between the Huerhuero and Marina soil series'; tidal flats are generally barren and range in texture from clay to very fine sand; this soil occurs in areas periodically covered by tidal water and can support salt-tolerant vegetation in higher elevation areas (Bowman 1973).

The only native vegetation HELIX biological surveys identified was a total of 0.36 acre of Diegan coastal sage scrub and southern willow scrub. The remaining vegetation consists of disturbed habitat and wetlands and non-native grasses (HELIX 2024). Many of the Diegan coastal sage scrub and southern willow scrub plant species would have been used by native populations for food, medicine, tools, and ceremonial and other uses, as would native grasses that were probably present prehistorically (Bean and Shippek 1978; Christenson 1990; Hedges and Beresford 1986). The estuarine environment of the nearby Batiquitos Lagoon and Agua Hedionda Lagoon, as well as the coastal environment, would have provided a diverse range of subsistence resources for native populations in the area, including many of the animal species living within these communities (such as shellfish, fish, rabbits, deer, small mammals, and birds).

2.2 CULTURAL SETTING

2.2.1 Prehistoric Period

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, dating to over 9,000 years ago (Warren 1967; Warren et al. 1998). Most researchers think the San Dieguito

Tradition had an emphasis on big game hunting and coastal resources (Warren 1967). Diagnostic material culture associated with the San Dieguito complex includes scrapers, scraper planes, choppers, large blades, and large projectile points (Rogers 1939; Warren 1967). In the southern coastal region, the traditional view of San Diego's prehistory has the San Dieguito Tradition followed by the Archaic Period, dating from circa 8600 years Before Present (BP) to circa 1300 BP (Warren et al. 1998).

A large number of archaeological site assemblages dating to this period have been identified at a range of coastal and inland sites. These assemblages, designated as the La Jolla/Pauma complexes, are considered part of Warren's (1968) "Encinitas tradition" and Wallace's (1955) "Early Milling Stone Horizon." The Encinitas tradition is generally "recognized by milling stone assemblages in shell middens, often near sloughs and lagoons" (Moratto 1984:147) and brings a shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic period are called the La Jollan complex along the coast and the Pauma complex inland. Pauma complex sites lack the shell that dominates many La Jollan complex site assemblages. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries. In the inland areas of San Diego County, sites associated with the Archaic Period are less common relative to the Late Prehistoric complexes that succeed them (Cooley and Barrie 2004; Laylander and Christenson 1988; Raven-Jennings and Smith 1999; True 1970). The La Jolla/Pauma complex tool assemblage is dominated by rough cobble tools, especially choppers and scrapers (Moriarty 1966). The La Jolla/Pauma complex tool assemblage also includes manos and metates; terrestrial and marine mammal remains; flexed burials; doughnut stones; discoidals; stone balls; plummets; biface points; beads; and bone tools (True 1958, 1980).

While there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns (e.g., Bull 1983; Ezell 1987; Gallegos 1987; Warren et al. 1998), abrupt shifts in subsistence and new tool technologies occur at the onset of the Late Prehistoric Period (1500 BP to AD 1769). The Late Prehistoric period is characterized by higher population densities and intensification of social, political, and technological systems. The Late Prehistoric period is represented by the San Luis Rey complex in the northern portion of San Diego County and the Cuyamaca complex in the southern portion. Late Prehistoric artifactual material is characterized by Tizon Brown Ware pottery, various cobble-based tools (e.g., scrapers, choppers, and hammerstones), arrow shaft straighteners, pendants, manos and metates, and mortars and pestles. The arrow point assemblage is dominated by the Desert Side-notched and Cottonwood Triangular points, but the Dos Cabezas Serrated type also occurs (Wilke and McDonald 1986). Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance (Bean and Shipek 1978; Sparkman 1908). The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

2.2.2 Ethnohistory

Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples (Kumeyaay) and the Takic-speaking peoples (Luiseño) at the time of contact, it is generally accepted that the Cuyamaca complex is associated with the Kumeyaay and the San Luis Rey complex with the Luiseño. The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the Indian people associated with that mission, while the Kumeyaay people are also known as Ipai, Tipai, or

Diegueño (named for Mission San Diego de Alcalá). Agua Hedionda Creek is often described as the division between the territories of the Luiseño and the Kumeyaay people (Bean and Shipek 1978; Luomala 1978), although various archaeologists and ethnographers use slightly different boundaries. Traditional stories and songs of the Native people also describe the extent of traditional use areas.

At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego and southwestern Imperial counties and northern Baja California. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherías. Most rancherías were the seat of a clan, although it is thought that, aboriginally, some clans had more than one ranchería and some rancherías contained more than one clan (Bean and Shipek 1978). Several sources indicate that large Kumeyaay villages or rancherías were located in river valleys and along the shoreline of coastal estuaries (Bean and Shipek 1978; Brackett 1939; Hoover et al. 1966; Kroeber 1925).

In northern San Diego County and portions of Riverside County, the Late Prehistoric and historic periods are represented by the San Luis Rey (SLR) complex. The SLR complex is divided into two phases: SLR I and SLR II. Elements of the SLR complex include small, triangular, pressure-flaked projectile points (generally Cottonwood series, but Desert Side-notched series also occurs); milling implements: mortars and pestles, manos and metates, and bedrock milling features; bone awls; Olivella shell beads; other stone and shell ornaments; and cremations (Meighan 1954; Moratto 1984; True et al. 1974). The later SLR II complex also includes several elements not found in the SLR I complex: "pottery vessels, cremation urns, red and black pictographs, and such nonaboriginal items as metal knives and glass beads" (Meighan 1954:223). SLR I was originally thought to date from A.D. 1400 to A.D. 1750, with SLR II dating between A.D. 1750 and A.D. 1850 (Meighan 1954). However, that division assumed that the Luiseño did not practice pottery manufacture until just before the arrival of the Spanish. The chronology has since been revised due to evidence that pottery may have been introduced to the Luiseño by their southern neighbors, the Kumeyaay, circa A.D. 1200-1600 (True et al. 1974).

2.3 HISTORICAL BACKGROUND

2.3.1 Spanish Period

While Juan Rodríguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. It was that year that the Royal Presidio of San Diego was founded on a hill overlooking Mission Valley. The Mission San Diego de Alcalá was constructed in its current location five years later. The Spanish Colonial period lasted until 1821 and was characterized by religious and military institutions bringing Spanish culture to the area and attempting to convert the Native American population to Christianity. Mission San Diego was the first mission founded in Southern California. Mission San Luis Rey, in Oceanside, was founded in 1798. *Asistencias* (chapels) were established at Pala (1816) and Santa Ysabel (1818). The missions and presidios stood, literally and figuratively, as symbols of Spanish colonialism, importing new systems of labor, demographics, settlement, and economies to the area. Cattle ranching, animal husbandry, and agriculture were the main pursuits of the missions.

2.3.2 Mexican Period

Although Mexico gained its independence from Spain in 1821, Spanish patterns of culture and influence remained for a time. The missions continued to operate as they had in the past, and laws governing the distribution of land were also retained in the 1820s. Following the secularization of the missions in 1834,

large ranchos were granted to prominent and well-connected individuals, ushering in the Rancho Era, with the society making a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With the numerous new ranchos in private hands, cattle ranching expanded and prevailed over agricultural activities.

The project area is situated within lands formerly within the Rancho Agua Hedionda land grant, which had been part of the holdings of Mission San Luis Rey. The landholdings of Mission San Luis Rey were divided into five separate land grants: Agua Hedionda, Buena Vista, Encinitas, Guajome, and Los Vallecitos de San Marcos. However, not all the former Mission lands were included in the Mexican land grants. According to Gutierrez, “some were left vacant, providing free range between the private land holdings” (Gutierrez 2002:10).

The 13,000-acre Rancho Agua Hedionda was granted to Juan Maria Romoulo Marron in 1842. The original home built by Marron at the rancho is the adobe, sometimes called the Marron Adobe but also known as the Kelly House. A second Marron home, the core of the historic Marron-Hayes Adobe, was built by Sylvestre Marron sometime between 1842 and 1851 (Rush 1965). This house is located about five miles northeast of the project area, along Buena Vista Creek.

2.3.2.1 American Period

American governance began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding California to the United States at the conclusion of the Mexican–American War. Terms of the treaty brought about the creation of the Lands Commission in response to the Homestead Act of 1851, which was adopted as a means of validating and settling land ownership claims throughout the state. Some of the large Mexican ranchos remained intact; however, due to legal costs and the difficulty of producing sufficient evidence to prove title claims, much of the land that once constituted rancho holdings became available for settlement by immigrants to California.

Following the death of Juan Maria Romoulo Marron in 1853, a 362-acre parcel in the northernmost portion of Rancho Agua Hedionda went to his younger brother and godson, Sylvestre Marron. It became known as Rinconada de Buena Vistas y el Salto, and a portion of this property remains in the Marron family today, including the Marron-Hayes Adobe. The remaining acreage was left to Marron’s wife, Felipa, and their four surviving children. By 1865, ownership of Rancho Agua Hedionda had passed to Francis J. Hinton. Hinton hired Robert Kelly to oversee his ranch operations. Following Hinton’s death in 1870, Kelly became the sole inheritor of Rancho Agua Hedionda.

A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors, including the discovery of gold in the state in 1848, the end of the Civil War, the availability of free land through the passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions, and greatly increased the rate of population decline among Native American communities.

In the late nineteenth and early twentieth centuries, development in Carlsbad and the project area was spurred on by agricultural pursuits. The construction of the California Southern and California Central railroads in the 1880s, linking San Diego County to San Bernardino and Los Angeles, provided the agricultural industries with a rail link to Los Angeles area markets (Nevin 2000). In the 1920s, the

majority of the entries in the Census were farms (City of Carlsbad 2015). Flowers, spurred by Paul Ecke Sr. and others, also became an important agricultural pursuit in the early twentieth century. Paul Ecke Sr. and Luther Gage transplanted from Los Angeles to northern San Diego County in pursuit of agricultural land after World War I, when the Los Angeles region was becoming increasingly developed (Nevin 2000). Ecke Sr. grew poinsettias, and Gage grew gladioli, ranunculi, freesias, and anemones and cultivated what would become Carlsbad's official flower, the bird-of-paradise. According to Nevin (2000), the success of these pioneer flower growers attracted others to join in, and coastal north county became a center for flower growing:

By the 1930s, the coastal strip from south Oceanside and Vista to Leucadia was home to about 50 experienced flower men with, by one grower's count, 680 acres planted to bulb crops, some of which were sold nationally and internationally: 350 acres to glads, 30 to anemones and ranunculi, 100 to daffodils, 50 to irises, and 150 to other bulbs. Because of the area's moderate climate, they could supply cut winter flowers, especially glads, to the big Los Angeles market (Nevin 2000).

After World War II, suburban development began to increase in Carlsbad and San Diego County, although agriculture continued to play an important role in the region. The City of Carlsbad was incorporated in 1952, consisting of approximately 7.5 square miles (City of Carlsbad 2015). Annexations gradually expanded the City's boundaries to the south and east, resulting in the current size of 39 square miles. As urban development increased along the coast, the agricultural and flower industries dispersed throughout the county and continued to grow throughout the latter half of the twentieth century.

3.0 METHODS

3.1 RECORDS SEARCH

HELIX conducted a records search of the project site and a one-half-mile radius at the South Coastal Information Center (SCIC) at San Diego State University on July 12, 2023. The records search covered a one-half-mile radius around the project area and included the identification of previously recorded cultural resources and previously conducted cultural resources studies. A review of the CHRIS and the state Office of Historic Preservation (OHP) historic properties directories, and Local Register, was also conducted. The records search maps are included as Appendix B (confidential, bound separately) to this report.

3.2 OTHER ARCHIVAL RESEARCH

HELIX staff reviewed additional archival records, including topographic maps (USGS n.d.) and aerial imagery (NETR Online 2024). The purpose of this research was to identify historical land use and past development of the project area and vicinity, as well as changes in the environment and setting of the project over time that would affect cultural resources.

The earliest available aerial photographs dated from 1947, followed by 1953, 1964, 1967, 1978, 1980-1991, 1993-2000, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020 (NETR Online 2024). Available historical USGS topographic maps included the 1893, 1898, 1901, and 1942 Oceanside quadrangle (1:62,500) maps, and the 1948, 1949, 1968, 1997, 2012, 2015, 2018, and 2022 Encinitas quadrangle (1:24,000) maps (USGS n.d.).

3.3 NATIVE AMERICAN CONTACT PROGRAM

HELIX archaeologists contacted the NAHC on July 12, 2023, for a Sacred Lands File search and list of Native American contacts, which were received on July 31, 2023. Outreach letters were sent on January 16, 2024, to the contacts listed by the NAHC. Native American correspondence is included as Appendix C (confidential, bound separately) to this report.

3.4 SURVEY METHODOLOGY

HELIX archaeologist Jessica Garcia and Luiseño Native American monitor Aleshanee Ventura with Saving Sacred Sites conducted a pedestrian survey of the project area on July 28, 2024. The entire length of the project alignment was walked, first from north to south on the eastern side of Avenida Encinas, then south to north on the western side. All visible soil was examined for the presence of cultural resources.

4.0 RESULTS

4.1 RECORDS SEARCH

4.1.1 Previous Surveys

The CHRIS records search at the SCIC resulted in the identification of 80 previously recorded cultural resource studies within the records search area, 18 of which overlapped the project area (Table 1, *Previous Studies Overlapping the Project Area*). Of these, four were archaeological surveys (DeCosta 1983; Chace 1981; Byrd and O'Neill 2002; Robbins-Wade 2009), two were excavations (Smith and Moriarty 1985; Buysse and Smith 2000), one was for a survey and excavation (Strudwick and Gallegos 1994), one was an overview of archaeological and historical resources (Fink 1976), one was a regional historic preservation study (WESTEC Services, Inc. 1985), two were monitoring reports (Kyle 2000; Smith 1996), one was an archaeological assessment (Van Bueren 1988), one was an environmental impact report (RECON 1985), two were historic property survey reports (Rosen 1999; Dominici 2007), one was a cultural resources study (Palette 2003), one was a request for concurrence from the state OHP (Flandreau 2013), and one was a cultural constraints analysis (Keeler and Gust 2014). None of these studies identified cultural resources within the project area.

Table 1
PREVIOUS STUDIES OVERLAPPING THE PROJECT AREA

Report No. (SD-)	Report Title	Author, Date
00014	An Archaeological Survey of the Batiquitos Material Site, 11-SD-5, 44.7-45.2, 11520-910075-5957005	DeCosta, 1983
00836	Archaeological and Historical Overview Encina Water Pollution Control Facility Service Area, Carlsbad, California (112 Square Miles) Project No. UR0087	Fink, 1976
00903	An Archaeological and Paleontological Survey of Occidental Land, Inc. Properties in the City of Carlsbad, California	Chace, 1981

Report No. (SD-)	Report Title	Author, Date
01981	The Archaeological Excavations of Cultural Resources at the Batiquitos Pointe and Batiquitos Bluffs Projects, Sites W-84, W-88, W-95, W-97, and W-2551	Smith and Moriarty, 1985
01984	Regional Historic Preservation Study	WESTEC Services, Inc., 1980
03004	Historical/Archaeological Survey and Test Report for the Poinsettia Lane Project, Carlsbad, California	Strudwick and Gallegos, 1994
03819	Cultural Resource Monitoring for Construction Grading of the Santalina Community Project City of Carlsbad, California	Kyle, 2000
04745	Archaeological Assessment for the Batiquitos Lagoon Enhancement Project, San Diego County, California	Van Bueren, 1988
04952	Draft Environmental Impact Report for the Batiquitos Lagoon Educational Park Master Plan EIR 84-3	RECON, 1985
05167	Results of Archaeological Monitoring of the Poinsettia Shores Project City of Carlsbad San Diego County, California	Smith, 1996
06629	Historic Property Survey Report Oceanside to San Diego-Rail to Trail	Rosen, 1999
07853	Salvage Excavations at Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project Carlsbad, California	Buyse and Smith, 2000
08487	Cultural Resources Study for the Proposed NCTD FAO Facility Project	Palette, 2003
09361	Archaeological Survey Report for the Phase I Archaeological Survey Along Interstate 5 San Diego County, California	Byrd and O'Neill, 2002
11761	Historic Property Survey Report, I-5 North Coast Widening Project	Dominici, 2007
12153	Archaeological Resources Survey, Agua Hedionda Sewer and Lift Station, Carlsbad, San Diego County, California	Robbins-Wade, 2009
14757	Request For Concurrence on "Section 106" Compliance and a Finding of "No Historic Properties Affected" for Vista/ Carlsbad Interceptor and Agua Hedionda Pump Station Replacement Project	Flandreau, 2013
18575	Cultural Constraints for the Batiquitos Lagoon Double-Track Project, Cities of Carlsbad and Encinitas, San Diego County, California	Keeler and Gust, 2014

4.1.2 Previously Recorded Resources

The SCIC has a record of 22 previously recorded cultural resources within a one-half-mile radius of the project, none of which are recorded within the project area (Table 2, *Previously Recorded Resources within One-Half-Mile of the Project Area*). The sites recorded within the search radius consist of 15 prehistoric sites, three prehistoric isolates, one historic building, one historic structure, one multi-component site, and one unknown resource. There are no previously recorded cultural resources within the project area. The nearest resource is the historic Burlington Northern Santa Fe Railroad (formerly the Atchison, Topeka, and Santa Fe Railway; P-37-024739), which is located adjacent to the southern half of the project alignment. This railroad was originally constructed in the 1880s, but no original

elements remain within the section running from Palomar Airport Road in the north to Poinsettia Lane in the south. Due to its modernization and associated lack of integrity, this portion of P-37-024739 is recommended as ineligible for the NRHP (McLean 2010).

Table 2
PREVIOUSLY RECORDED RESOURCES WITHIN ONE-HALF-MILE OF THE PROJECT AREA

Resource Number (P-37-)	Resource Number (CA-SDI-)	Age and Resources Present	Description	Recorder, Date
000760	760	Prehistoric Site	Shell and lithic scatter	Crabtree and King, 1961; McLean, 2010; Courtney, 2017
006067	6067	Prehistoric Site	Shell scatter with isolated cobble tool and flake	Franklin, 1978; Roeder, 1982
006749	6749	Unknown	Site record missing	Unknown
006750	6750	Prehistoric Site	Shell scatter	Franklin, 1978
009589	9589	Prehistoric Site	Shell scatter with cobbles and flakes	Woodward and Mueller, 1982; Bell, 1987
009590	9590	Prehistoric Site	Shell scatter with cobble tools	Woodward, 1982; Barter, 1993
010439	10439	Prehistoric Site	Shell scatter with lithic tools	Cheever, 1985
011026	11026	Prehistoric Site	Lithic and tool scatter	Rogers, n.d.; May, 1972; Van Bueren, 1988
011953	11953	Prehistoric Site	Shell scatter and midden	Smith, 1990
012670	12670	Prehistoric Site	Large artifact scatter	Rogers, n.d.; Van Bueren, 1988; Laylander, 2003
012807	12807	Prehistoric Site	Large artifact scatter	Rogers, n.d.; Kowta, 1959; Ezell and Moriarty, 1964; Van Bueren, 1988
015184	---	Prehistoric Isolate	Isolated core	Huey et al., 1992
018804	15678	Prehistoric Site	Shell scatter	O'Neill, 2000; Laylander, 2003
018805	15679	Prehistoric Site	Shell scatter	O'Neill, 2000; Laylander, 2003
018809	---	Prehistoric Isolate	Shell fragments	O'Neill, 2000
019033	13739	Multi-Component Site	Temporary camp and historic artifact scatter	Strudwick and Caldwell, 1994

Resource Number (P-37-)	Resource Number (CA-SDI-)	Age and Resources Present	Description	Recorder, Date
024739	16385	Historic Structure	Segments of the Santa Fe Railroad, dating to 1882 and 1883.	Ballester and Woodard, 2002; McLean, 2010; Stiefel and Gunderman, 2009; Schulz and Harper, 2011; unknown, 2012; Castells, 2013; Castells and Krintz, 2013; Gunderman, 2013; Castells and Quach, 2014; Castells, 2015; Daly, 2015; Tift and Lennen, 2016; Courtney, 2017; Foglia, 2017; O'Conner, 2022
026512	17408	Prehistoric Site	Camp site with artifacts	Rogers, n.d.; Roy, 2017
026517	17413	Prehistoric Site	Shell and lithic scatter	May, 1972; Foglia and Droessler, 2015
033595	---	Prehistoric Isolate	Isolated core	Pigniolo, 2014
036392	22036	Prehistoric Site	Lithic and shell scatter	Foglia and Droessler, 2016
039089	---	Historic Building	Multi-unit office building, built in 1972	Williams, 2019

4.2 ARCHIVAL RESEARCH

The 1947 historic aerial photograph shows the creek within Canyon de las Encinas bisecting the project alignment, the railroad located just west of the alignment, and the Pacific Coast Highway running along the bluff above the beach. The surrounding land appears to be graded and sectioned off as agricultural fields. The 1967 aerial shows the first indications of Avenida Encinas, which appears to be a thin road, possibly dirt, running from Palomar Airport Road to about where the Poinsettia Station Apartments are currently located. This map also shows the Lanikai Lane neighborhood of mobile homes southwest of the project alignment, the Solamar neighborhood west of the northern half of the project alignment, and I-5 east of the project alignment. Throughout the 1970s, 1980s, and 1990s, agricultural fields gave way to industrial and commercial buildings between Avenida Encinas and I-5, and residential neighborhoods appear east of I-5; however, the fields adjacent to the southern half of the alignment remain partially intact. The 1995 aerial shows Avenida Encinas connecting and paved throughout the project alignment (NETR Online 2024).

The 1893, 1898, and 1901 (1:62,500) USGS topographic maps show the railroad and a coastal road west of the project alignment. The 1942 map shows additional roads in the area of Paseo del Norte and Palomar Airport Road. No additional development is shown until the 1968 (1:24,000) map, when I-5, Palomar Airport Road, and an unnamed road leading to a sewage disposal site appear. The next available map dates to 1997, at which time Avenida Encinas was in place, with a sewage disposal location east of the project alignment, residential neighborhoods west of the railroad tracks, and the

beginnings of development shown south of the project alignment near the Poinsettia Coaster Station Driveway (USGS n.d.). No additional development is shown on more recent maps.

4.3 NATIVE AMERICAN OUTREACH

HELIX contacted the NAHC on July 12, 2023, for a Sacred Lands File search and a list of Native American contacts for the project area. The NAHC indicated in a response dated July 31, 2023, that no known sacred lands or Native American cultural resources have been documented within the project area. HELIX sent letters to Native American representatives and interested parties identified by the NAHC on January 16, 2024. As of the date of this report, two responses have been received from the Rincon Band of Luiseño Indians (Rincon) and the San Pasqual Band of Mission Indians (San Pasqual). Rincon expressed concerns over possible impacts to Tribal Cultural Resources, stated that this area is culturally sensitive, and requested to consult with the lead agency. San Pasqual stated that the project is within the tribe's Aboriginal Territory and requested to consult with the lead agency. If additional responses are received, they will be forwarded to City staff. Native American correspondence is included as Appendix C (confidential, bound separately).

4.4 SURVEY

HELIX archaeologist Jessica Garcia and Luiseño Native American monitor Aleshanee Ventura (Saving Sacred Sites) surveyed the project alignment on July 28, 2023. The majority of the alignment was covered by asphalt and concrete, with non-native ornamental landscaping and lawn grass along the eastern roadway shoulder (Plate 1). Native soil and plants were visible along the western shoulder of the alignment; however, the soil was pushed into berms and, therefore, previously disturbed (Plate 2). The shoulders along either side of the southernmost portion of the alignment featured some visible native soil and plants within the coastal sage scrub family. Soil in these areas was light-brown sand. Total ground visibility for the project alignment was 10 to 15 percent, the majority of which was within the eastern and southern shoulders. The survey did not reveal any cultural resources.



Plate 1. The eastern shoulder of Avenida Encinas, view to the northwest



Plate 2. The western shoulder of Avenida Encinas, view to the north

5.0 SUMMARY AND MANAGEMENT RECOMMENDATIONS

A study was undertaken to identify cultural resources that are present in the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project area and to determine the effects of the project on cultural resources. The cultural resources study did not identify any cultural resources within the project area; therefore, no impacts to known cultural resources are anticipated.

A records search of previously recorded cultural resources and previously conducted cultural resources studies did not identify any cultural resources within the project area. The historic-aged Santa Fe Railroad is directly adjacent to the project area; however, this portion is ineligible for inclusion in the NRHP and CRHR and, therefore, is not considered a historic property per Section 106 or a historical resource per CEQA. Archival research did not identify any historic built environment resources within the project area and indicated that the alignment had been disturbed in the past by agricultural activities and the construction of Avenida Encinas.

The Sacred Lands File search was negative. Tribal outreach received one response letter from Rincon requesting consultation. If additional tribal responses are received, they will be forwarded to the City.

The cultural resources survey did not identify any cultural resources and revealed disturbance throughout the project area. However, it is not known how deeply the ground has been disturbed, and the presence of alluvial soil in the project area indicates a potential for buried cultural resources.

5.1 MANAGEMENT RECOMMENDATIONS

Based on the results of the current study, no known historic properties (per Section 106) or historical resources (per CEQA) will be affected by the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project. However, the project area was covered by the roadway and vegetation during

the survey, and the original ground surface could not be observed. Additionally, the project site is located within alluvial soils, where there is a potential for buried cultural resources. Tribal outreach responses from Rincon and San Pasqual indicated there are Tribal Cultural Resources within the project vicinity.

Based on this, it is recommended that an archaeological and Native American monitoring program be implemented if grading or other ground-disturbing activities (e.g., trenching for utilities, clearing and grubbing, grading) are to occur below the top layer of disturbed soil. The monitoring program would include attendance by the archaeologist and Native American monitor at a preconstruction meeting with the grading contractor and the presence of archaeological and Native American monitors during ground-disturbing activities within undisturbed soils on site. Both archaeological and Native American monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. If significant cultural material is encountered, the project archaeologist and monitoring tribe will coordinate with the applicant and City staff to develop and implement appropriate treatment measures, including resource avoidance, minimization of impacts, and mitigation of impacts.

In the event that human remains are discovered, the County Coroner shall be contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted to determine proper treatment and disposition of the remains. All requirements of Health & Safety Code §7050.5 and PRC §5097.98 shall be followed.

Should the project limits change to incorporate new areas of proposed disturbance, an archaeological survey of these areas will be required.

6.0 REFERENCES

- Bean, Lowell J., and Florence C. Shipek
1978 Luiseño. In *California*, edited by Robert F. Heizer, pp. 550–563. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Bowman, Roy H.
1973 *Soil Survey: San Diego Area*. United States Department of Agriculture. Beltsville, Maryland.
- Brackett, R.W.
1939 *A History of the Ranchos of San Diego County, California*. Union Title Insurance and Trust Company
- Bull, Charles S.
1983 Shaking the Foundations: The Evidence for San Diego Prehistory. *Casual Papers: Cultural Resource Management* 1(3):15-64. Cultural Resource Management Center, San Diego State University.
- Christenson, Lynne E.
1990 *The Late Prehistoric Yuman People of San Diego County, California: Their Settlement and Subsistence System*. Ph.D. dissertation, Department of Anthropology, Arizona State University, Tempe. University Microfilms, Ann Arbor.
- City of Carlsbad
2015 City of Carlsbad General Plan Update. Electronic document available at <https://www.carlsbadca.gov/departments/community-development/planning/general-plan>. Accessed on January 20, 2024.
- Ezell, Paul H.
1987 The Harris Site – An Atypical San Dieguito Site, or Am I Beating a Dead Horse? In *San Dieguito–La Jolla: Chronology and Controversy*, edited by Dennis Gallegos, pp. 15-22. San Diego County Archaeological Society Research Paper Number 1. San Diego.
- Gallegos, Dennis R.
1987 A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito–La Jolla: Chronology and Controversy*, edited by Dennis Gallegos, pp. 23-34. San Diego County Archaeological Society, Research Paper 1.
- Gutierrez, Susan Schnebelen
2002 *Windows on the Past: An Illustrated History of Carlsbad, California*. The City of Carlsbad, CA.
- Hedges, Ken, and Christina Beresford
1986 *Santa Ysabel Ethnobotany*. San Diego Museum of Man Ethnic Technology Notes No. 20.

HELIX Environmental Planning, Inc.

- 2025 Biological Technical Report for the Avenida Encinas Coastal Rail Trail and Pedestrian Improvements Project. Prepared for Nasland Engineering. On file at HELIX Environmental Planning, Inc., La Mesa.

Hoover, Mildred, Hero Eugene Rensch, and Ethel Grace Rensch

- 1966 *Historic Spots in California*. 3rd ed. Stanford University Press, Stanford, California.

Kroeber, A.L.

- 1925 *Handbook of California Indians*. Bureau of American Ethnology of the Smithsonian Institution *Bulletin* 78. Republished lithographed edition 1970, Fulmer Brothers Press Taylor & Taylor, San Francisco

Meighan, Clement W.

- 1954 The Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2):215–227.

McLean, R.

- 2010 Site form update for P-37-024739. LSA and Associates, Inc. On file at the South Coastal Information Center, San Diego State University.

Moratto, Michael J.

- 1984 *California Archaeology*. Academic Press, Orlando.

Moriarty, James R., III

- 1966 Cultural Phase Divisions Suggested by Typological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *The Anthropological Journal of Canada* 4(4): 20–30.

Natural Resources Conservation Service

- 2024 Web Soil Survey. United States Department of Agriculture. Electronic document available at [Canyon de las Encinas, Carlsbad, CA drainage - Google Search \(usda.gov\)](#), accessed on January 30, 2024.

NETR Online

- 2024 Historic Aerials. Nationwide Environmental Title Research, LLC. Electronic document available at: <http://www.historicaerials.com>, accessed on 1/26/2024.

Nevin, Linda

- 2000 The 300-Million Dollar Bouquet: San Diego's uncertain flower future. *San Diego Reader* 18 May. San Diego. Electronic document available at <https://www.sandiegoreader.com/news/2000/may/18/feature-300-million-dollar-bouquet/#>. Accessed on January 20, 2024.

Pryde, Philip R.

- 2004 *San Diego: An Introduction to the Region*. Sunbelt Publications; 4th edition.

Rogers, Malcolm J.

- 1939 *Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas*. San Diego Museum of Man Papers No. 3. San Diego Museum of Man.

Rush, Philip S.

- 1965 *Some Old Ranchos and Adobes*. Neyenesch Printers, Inc., San Diego.

Sparkman, Philip Stedman

- 1908 The Culture of the Luiseño Indians. University of California Publications in American Archaeology and Ethnology 8(4):187-234.

True, D.L.

- 1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3): 255–263.
- 1980 The Pauma Complex in Northern San Diego County: 1978. *Journal of New World Archaeology* 3(4): 1–30. Institute of Archaeology, University of California, Los Angeles.

True, D.L., C.W. Meighan, and Harvey Crew

- 1974 Archaeological Investigations at Molpa, San Diego County, California. *University of California Publications in Anthropology* 11, Berkeley.

USGS

- 2024 TopoView. Digital database available at <https://ngmdb.usgs.gov/topoview/viewer/>. Accessed on 1/26/2024.

Warren, Claude N.

- 1967 The San Dieguito Complex: A Review and Hypothesis. *American Antiquity* 32:168-185.

Warren, C.N., G. Siegler, and F. Dittmer

- 1998 Paleoindian and Early Archaic Periods. In *Prehistoric and Historic Archaeology of Metropolitan San Diego: A Historic Properties Background Study*. Prepared for the Metropolitan Wastewater Department, City of San Diego. ASM Affiliates, Encinitas, California.

Wilke, Philip J. and Meg McDonald

- 1986 Flaked Stone Artifacts. In *Excavations at Indian Hill Rockshelter, Anza Borrego Desert State Park, California, 1984-1985*, edited by Philip J. Wilke, Meg McDonald, and L. A. Payen, pp. 46-71. Archaeological Research Unit, University of California, Riverside.

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Appendix A

Resumes of Key Personnel

EDUCATION

Master of Arts,
Anthropology,
San Diego State
University, 1990

Bachelor of Arts,
Anthropology, University
of California, Santa
Barbara, 1981

REGISTRATIONS/ CERTIFICATIONS

Registered Professional
Archaeologist No. 10294

Caltrans, Professionally
Qualified Staff-
Equivalent Principal
Investigator for
Prehistoric Archaeology

Bureau of Land
Management
Statewide Cultural
Resource Use Permit
(California), FLPMA
Permit No. CA-18-35

County of San Diego,
Approved CEQA
Consultant for
Archaeological
Resources

Orange County
Approved
Archaeologist

Riverside County
Approved Cultural
Resources Consultant

PROFESSIONAL AFFILIATIONS

Society for American
Archaeology

Society for California
Archaeology

San Diego
Archaeological Center

San Diego History
Center

San Diego Museum of
Us

San Diego County
Archaeological Society

MARY ROBBINS-WADE, RPA

Cultural Resources Group Manager



Ms. Robbins-Wade is HELIX's Cultural Resources Group Manager and Principal Archaeologist. With 43 years of experience, she manages and oversees archaeological, historic, and interpretive studies and programs, including contract management; design and implementation of survey, research, data recovery, and construction monitoring programs; preservation plans and report preparation. Ms. Robbins-Wade has experience with a broad range of project types, including private developments and public infrastructure. She manages

the preparation of cultural resources studies both as stand-alone reports and also in support of CEQA and NEPA compliance efforts. Ms. Robbins-Wade has a strong working knowledge of local, state, and federal laws addressing the protection of archaeological and historical resources. Her Native American consultation experience includes coordinating Native American tribal consultations conducted pursuant to CEQA as revised by Assembly Bill 52 (2014 Session), as well as providing support for federal agency government-to-government consultations with federally recognized tribes pursuant to Section 106 of the National Historic Preservation Act (NHPA). Ms. Robbins-Wade is a Registered Professional Archaeologist (RPA) and meets the U.S. Secretary of the Interior's Professional Qualifications for prehistoric and historic archaeology.

San Nicolas Island High Explosives Magazine Archaeological Monitoring (2023).

Principal Investigator for archaeological monitoring during construction of a high-explosives magazine on the west side of San Nicolas Island within the boundaries of a known archaeological site with human remains. San Nicolas Island is considered a Traditional Cultural Property by associated Native American tribes and, as such, includes extremely sensitive cultural sites. Worked with Navy and Luiseno and Chumash tribes to determine the appropriate treatment for finds made during monitoring. Reviewed project deliverables, including work plans, a Worker's Environmental Awareness Program, mapping, and field reporting. The work complies with NHPA and NAGPRA and is ongoing. Performed for Reyes Construction under contract to the US Navy.

San Nicolas Island Missile Assembly Bunker Archaeological Monitoring (2023).

Principal Investigator for archaeological monitoring during construction of a high-explosives magazine on the west side of San Nicolas. San Nicolas Island is considered a Traditional Cultural Property by associated Native American tribes and, as such, includes extremely sensitive cultural sites. Worked with Navy and Luiseno and Chumash tribes to determine the appropriate treatment for finds made during monitoring. Reviewed project deliverables, including work plans, a Worker's Environmental Awareness Program, mapping, and field reporting. The work complies with NHPA and NAGPRA and is ongoing. Performed for Soltec under contract to the US Navy.

On Geneva Controlled Grading and Archaeological Monitoring (2022-2023). Principal Investigator for a controlled grading program in southwestern Oceanside for a private residential development. Survey of the property identified a prehistoric site within the area to be developed. Acted as Principal Investigator for a testing program, which found the site to be ineligible for listing in the CRHR. Worked with San Luis Rey to determine a location for artifact reburial within the project limits. Work performed for On Geneva, LLC.

One Alexandria Square Environmental Consulting (2019 - 2024). Principal Investigator/Cultural Resources Lead for a cultural resources study for a redevelopment project of existing office/scientific research uses to include additional office/lab space (including underground parking), a parking structure, and retail uses. Due to the presence of a known significant archaeological/cultural resource, responsibilities included researching previous archaeological studies, working with the project team to design the project so as to preserve over 75 percent of the significant resource, developing a research design and data recovery plan to mitigate impacts that could not be avoided through project design, and listing the resource on the City's Historical Landmarks list, as well as serving as senior report author.

Carlsbad Trails Master Plan Constraints Analysis and IS/MND (2015 - 2016). Cultural Resources Task Manager for the analysis of the Carlsbad Trails Master Plan, which includes existing and proposed recreational trails throughout the City. Conducted an initial screening of potential cultural resources issues that may affect discrete projects within the Trails Master Plan. Also developed protocols for addressing cultural resources under the Trails Master Plan. Work performed for the City of Carlsbad.

El Camino Real Road Widening-Archaeological Monitoring (2015 - 2016). Project Manager/ Principal Investigator for an archaeological monitoring project for the City of Carlsbad in a culturally sensitive area. Project required close coordination with Native American representatives, City staff, construction crews, and another cultural resources firm to ensure that there are no impacts to significant cultural resources. Work performed for the City of Carlsbad.

University and Innovation District Environmental Impact Report (2015 - 2016). Cultural Resources Task Manager/Principal Investigator for the 375-acre, four-year University and Regional Technology Park in the Otay Ranch and Eastlake III neighborhoods of Chula Vista, San Diego County. Responsible for preparation of the cultural resources technical report and managing cultural resources surveys, including Native American outreach, in support of the EIR. HELIX is managing grading studies, technical studies, and the CEQA documentation, as well as providing input to the Sectional Planning Area Plan. The University will feature academic space, academic support space, physical education facilities, student housing, and parking areas sized to serve up to 20,000 full-time equivalent students. The Regional Technology Park is envisioned as a higher-value manufacturing and research park with both independent uses and programmatic links to the university. Work performed for City of Chula Vista. Cultural resources task leader for the University Innovation District Sectional Planning Area project that would direct the implementation of a four-year university and supporting uses in the Otay Ranch and Eastlake III neighborhoods in the City of Chula Vista. The University will feature academic space, academic support space, physical education facilities, student housing, and parking areas to be sized to serve up to 20,000 full-time equivalent (FTE) students. Tasks included supervising the background research, field surveys, recording of cultural resources, and report preparation. Was also responsible for Native American outreach.

Cemetery Area Water Pipeline Replacement-Construction Monitoring (2015 - 2016). Project Manager/Principal Investigator for a water pipeline replacement project in eastern Escondido, located partially within a historic cemetery. Initial work included a cultural resources survey and a historic study of the cemetery; HELIX later conducted cultural resources monitoring during construction. Oversaw historic study, cultural resources survey,

and monitoring. Responsible for Native American outreach and report preparation. Work performed for the City of Escondido.

Southwest Sewer Realignment Project - Monitoring Services (2016 - 2018). Project Manager/Principal Investigator for cultural resources monitoring during construction of a sewer realignment project in western Escondido, adjacent to an ethnohistoric village site. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Oversaw monitoring program; responsible for Native American outreach/ coordination, site record updates to reflect the finding of additional bedrock milling features, and report preparation. Work performed for the City of Escondido.

Emergency Storage Pond Project (2018 - 2018). Project Manager/Principal Investigator for a cultural resources testing program in conjunction with the Escondido Recycled Water Distribution System - Phase 1. Two cultural resources sites that could not be avoided through project design were evaluated to assess site significance and significance of project impacts. Work included documentation of bedrock milling features, mapping of features and surface artifacts, excavation of a series of shovel test pits at each site, cataloging and analysis of cultural material recovered, and report preparation. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Work performed for the City of Escondido.

Escondido Brine Line Project (2018 - 2019). Project Manager/Principal Investigator for cultural resources monitoring during construction of approximately 2.3 miles of a 15-inch brine return pipeline in the City of Escondido. The project, which is part of the City's Agricultural Recycled Water and Potable Reuse Program, enables discharge of brine recovered from a reverse osmosis facility that is treating recycled water; it is one part of the larger proposed expansion of Escondido's recycled water distribution to serve eastern and northern agricultural land. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Oversaw monitoring program, including Worker Environmental Awareness Training; responsible for Native American outreach/coordination, coordination with City staff and construction crews, and general project management. Work performed for the City of Escondido.

Blended Reverse Osmosis (RO) Line Project (2018 - 2019). Project Manager/ Principal Investigator for cultural resources monitoring during construction of a 24-inch recycled water pipeline in the City of Escondido. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Oversaw monitoring program, including Worker Environmental Awareness Program (WEAP) training; responsible for Native American outreach/coordination, coordination with City staff and construction crews, and general project management. Work performed for the City of Escondido.

Oceanside Water Utilities Department As-Needed Environmental Consulting Services, 2013-2015 (2015 - 2016). Cultural Resources Task Lead/Principal Investigator for an on-call contract with the City of Oceanside Water Utilities Department. HELIX is providing on-call environmental consulting services, including CEQA compliance documents, surveys, studies, construction monitoring, and related services. Project types include reservoirs, pump stations, lift stations, pipelines, and treatment plants. Work performed for the City of Oceanside Water Utilities Department.

Oceanside Water Utilities Department On-Call Environmental Consulting Services 2016-2017 (2016 - 2017). Cultural Resources Task Lead/Principal Investigator for an on-call contract with the City of Oceanside Water Utilities Department. HELIX is providing on-call environmental consulting services, including CEQA compliance documents, surveys, studies, construction monitoring, and related services. Project types include reservoirs,

pump stations, lift stations, pipelines, and treatment plants. Work performed for the City of Oceanside Water Utilities Department.

Oceanside Water Utilities Dept On-Call Environmental Consulting Services, 2017-2022 (2018 - 2021). Cultural Resources Task Lead/Principal Investigator for three consecutive on-call contracts with the City of Oceanside Water Utilities Department. Oversaw the preparation of cultural resource reports, coordinates with Native American tribes, and directed construction monitoring teams for projects as part of this contract. Project types include reservoirs, pump stations, lift stations, pipelines, and treatment plants.

Haymar Easement Protection Project (2020 -). Cultural Resources Task Lead/Principal Investigator for an emergency repair project to protect a trunk sewer and associated access path badly damaged by erosion. Overseeing cultural resources monitoring during construction in this highly culturally sensitive area, including coordination with Luiseño tribal monitors and City staff.

Pottery Canyon Mitigation Monitoring (2014 - 2016). Project Manager/Principal Investigator for a cultural resources monitoring program in conjunction with contaminated soils remediation program at a significant historic archaeological site in Pottery Canyon Park in the City of San Diego. The project included review of the previous testing report and the remediation plan, assessment of the capping program to ensure its compliance with the approved preservation measures, monitoring of capping, collection and cataloging of artifacts outside the capped area, and preparation of a monitoring report. Work performed for the City of San Diego Department of Park and Recreation under an as-needed contract.

28th Street between Island Avenue and Clay Avenue Utilities Undergrounding Archaeological Monitoring (2014 - 2018). Project Manager/Principal Investigator for a utilities undergrounding project in a historic neighborhood of East San Diego. Responsible for project management; coordination of archaeological and Native American monitors; coordination with forensic anthropologist, Native American representative/Most Likely Descendent, and City staff regarding treatment of possible human remains; oversaw identification of artifacts and cultural features, report preparation, and resource documentation. Work performed for the City of San Diego.

Vista Vineyards (2014 - 2015). Project Manager/Principal Investigator in a cultural resources survey and testing program for a proposed residential development in the City of Vista. The 15.2-acre project is located along Buena Vista Creek, in an area that is culturally sensitive to the Luiseño people, and two archaeological sites within the project had previously been assessed as significant cultural resources. Overseeing background research, field survey, testing, recording archaeological sites, Native American outreach and coordination, and report preparation. The aim of the cultural resources study was to supplement the previous testing work, in order to guide the data recovery program at one site and to develop a preservation plan for the second site. In addition, the project included a historic study to provide the context and framework for recording a historic archaeological site associated with a significant pioneering family in Vista. Due to the project's location and the known significant cultural resources, the cultural resources study included outreach and coordination with the Luiseño community. The project addresses preservation of the significant resources. Work performed for City of Vista.

Camino Largo / PC6-056 (2014 - 2015). Project Manager/Principal Investigator for a cultural resources survey and testing program for a proposed residential development in the City of Vista. Oversaw background research, field survey, testing, site recordation, Native American coordination, and report preparation. Work performed for City of Vista.

Vista Grande (2015 - 2016). Project Manager/Principal Investigator for a cultural resources survey and testing project for a proposed residential development in the City of Vista. Work included testing/assessment of an

archaeological site identified during the survey, as well as evaluation of a historic residence. Work performed for City of Vista.

Cultural Resources Study - P16-0310 Pheasant Hill MND (2017 - 2017). Project Manager/Principal Investigator for a cultural resources survey and testing program for a proposed residential development in the City of Vista. Oversaw background research, field survey, testing, site recordation, Native American coordination, and report preparation. Work performed for City of Vista.

Olive Avenue 15-Lot TSM/ANX Project (P17-0388) (2019 -). Project Manager for a cultural resources survey report for a 15-lot residential subdivision on a property to be annexed to the City of Vista. The cultural resources study included historic evaluation of a house and barn constructed in the 1930s. The project vicinity was identified as sensitive for cultural resources, and HELIX worked with tribal representatives to address potential impacts and mitigation measures. Work performed for the City of Vista.

Erosion Repair at Modjeska Canyon Road (2020 -). Cultural Resources Task Lead/Principal Investigator for proposed repairs of erosion damage to Modjeska Canyon Road. Oversaw fieldwork and report preparation. Responsible for Native American outreach and coordination; coauthored report and provided quality control of report deliverable. Work performed for Orange County Department of Public Works.

Erosion Repair at Silverado Canyon (2020 -). Cultural Resources Task Lead/Principal Investigator for proposed repairs of erosion damage to Silverado Canyon Road. Oversaw fieldwork and report preparation. Responsible for Native American outreach and coordination; coauthored report and provided quality control of report deliverable. Work performed for Orange County Department of Public Works.

Borrego Springs Community Library IS/MND (2015 - 2016). Cultural Resources Task Manager/ Principal Investigator for a cultural resources survey for a proposed development consisting of a public library, park, and police substation for the County of San Diego. The project is proposed on a 20.5-acre site on undeveloped land in the Borrego Springs community.

Pamo Bridge (North) Geotech Boring Project (2017 - 2017). Cultural Resources Task Lead for environmental monitoring in conjunction with geotechnical borings for this proposed bridge replacement project in the Pamo Valley area of San Diego County. The project site is within a significant cultural resources site, CA-SDI-7933/H. This site, which covers almost 50 acres and encompasses the entire project area, has been described as part of the ethnographic Kumeyaay village of Pauha. It also includes historic features and artifacts related to a Civilian Conservation Corps (CCC) camp and US Forest Service Ranger Station. Cultural resources monitoring of geotechnical borings was required to ensure that there were no inadvertent impacts to this significant resource. Responsible for coordinating monitoring efforts by a subconsultant to HELIX and the Kumeyaay Native American monitors, as well as preconstruction sensitivity training and post-construction reporting.

Lake Elsinore Honda (Archaeological Services) (2018 - 2018). Project Manager/Principal Investigator for a cultural resources survey of a proposed auto dealership project in the City of Lake Elsinore. Oversaw background research and field survey; responsible for Native American coordination and report preparation. Work performed for David Evans Associates, with the City of Lake Elsinore as the lead agency.

Diaz Road Expansion, PW17-25 (2020 -). Principal Investigator/Cultural Resources Task Lead for cultural resources survey in support of an IS/MND for proposed city infrastructure improvements associated with the widening and construction of Diaz Road in the City of Temecula. The cultural resources study included tribal outreach and coordination to address the cultural sensitivity of the project area. Oversaw cultural resources study; responsible for tribal outreach and senior oversight on technical report. Work performed for David Evans and Associates, with the City of Temecula as the lead agency.

Marshall Avenue Industrial Park Project (2020 -). Principal Archaeologist for an industrial development project located on 9.3 acres within the City of El Cajon. The project includes up to approximately 111,000 square feet of multi-tenant industrial space over seven buildings. Oversaw the cultural resources technical study that supported the IS/MND that was also prepared by HELIX, along with technical studies of biological resources and GHG emissions. Work was performed for Dentt Development, with the City of El Cajon as the lead agency.

Judson Potable Water Storage Tank and Transmission Pipeline IS/MND (2016 - 2019). Cultural Resources Task Lead for this project in the City of Moreno Valley. Eastern Municipal Water District is proposing the construction and operation of a steel, 2.2-million-gallon (MG) potable water storage tank, approximately 2,300 linear feet of 18-inch-diameter transmission pipeline, a paved access road, a detention basin, and other appurtenances to support tank operations. Oversaw background research and field survey. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

EMWD Fox Tank Replacement IS/MND (2017 - 2018). Cultural Resources Task Lead for this project in the Mead Valley community of unincorporated Riverside County. Eastern Municipal Water District proposed to construct and operate a new 1.0-million-gallon (MG) welded steel water tank and 0.15-MG detention basin, install a new 12-inch-diameter pipeline within Fox Street and Ellis Road to connect the new tank to the existing water distribution network, and demolish the existing 0.15-MG Orange Tank. Oversaw background research, field survey, and report preparation. Responsible for Native American outreach for cultural resources survey. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

Cactus II Feeder Transmission Pipeline IS/MND (2017 - 2018). Cultural Resources Task Lead for this project in the City of Moreno Valley. Eastern Municipal Water District proposed to construct approximately five miles of new 30-inch to 42 inch-diameter pipeline; the project would address existing system deficiencies within the City and provide supply for developing areas. Oversaw background research, field survey, and report preparation. Responsible for Native American outreach for cultural resources survey. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

Sky Canyon Sewer Environmental Consulting (2018 - 2019). Cultural Resources Task Lead for this project adjacent to the City of Murrieta in southwestern Riverside County. Eastern Municipal Water District (District) proposed to implement the Sky Canyon Sewer Main Extension Project to construct approximately 6,700 linear feet of new gravity-fed 36-inch-diameter sewer main to provide additional sewer capacity for planned development. The proposed 36-inch-diameter sewer main would extend the existing 36-inch-diameter French Valley Sewer at Winchester Road further downstream to Murrieta Hot Springs Road. Oversaw background research and field survey for the cultural resources study in support of the IS/MND. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

964 Urania Avenue (2016). Project Manager/Principal Investigator for a cultural resources survey and testing program for a proposed residential development in the City of Solana Beach. Oversaw background research, field survey, testing, site recordation, Native American coordination, and report preparation. Work performed for Hall Land Company.

Anza Street Townhomes Project (2020 -). Project Manager for a cultural resources study for a residential subdivision in the El Cajon area of the County of San Diego. Project included Native American outreach and coordination as part of the archaeological study. Work performed for Hallmark Communities.

SR-76 East Mitigation Monitoring - Cultural Monitoring (2015 - 2019). Project Manager/Principal Investigator for a cultural resources monitoring project for roadway improvements at the SR-76/I-15 Interchange and on SR-76 along the San Luis Rey River in the Bonsall area of San Diego County. The area along the San Luis Rey River is quite sensitive in terms of cultural resources. Oversaw field monitoring, report preparation, and monitor coordination with Caltrans field staff. Responsible for Native American coordination and coordination with Caltrans cultural resources staff. Work performed for Caltrans and SANDAG.

Downtown Riverside Metrolink Station Track & Platform Project (2019 - 2023). Cultural Resources Task Lead for this project involving changes to and expansion of the Downtown Metrolink Station in Riverside. Oversaw records search and background information, archaeological survey, and report preparation; served as primary report author. Responsible for coordination with Native American Heritage Commission, Riverside County Transportation Commission (RCTC), and Federal Transportation Authority (FTA) on Native American outreach. Work performed for Riverside County Transportation Commission as a subconsultant to HNTB Corporation.

Villa Stora (2014 - 2015). Project Manager/Principal Investigator of a cultural resources survey for a proposed residential development in the City of Oceanside. Oversaw background research, field survey, Native American coordination, and report preparation. The project is in proximity to Mission San Luis Rey, in an area of great cultural significance to the Luiseño people, as well as archaeological sensitivity. The cultural resources study included background research, survey of the project area, archaeological testing/assessment, and coordination with the Native American community. Work performed for Integral Partners Funding, LLC.

Valiano Cultural Resources (2014 - 2015). Project Manager/Principal Investigator of a cultural resources survey and testing program for a 239-acre residential planned community in the Escondido area of the County of San Diego. Oversaw background research, field survey, testing, recording archaeological sites and assessment of historic structures, Native American outreach and coordination, and report preparation. Archaeological testing was conducted at several sites that could not be avoided through project design. The project site is in an area that is of cultural importance to both the Kumeyaay and Luiseño people; HELIX archaeologists worked with Native American representatives from both groups. Coordination was conducted to determine the feasibility of preserving bedrock milling features by moving them to open space areas within the project. Other archaeological sites were retained in open space through project design. Work performed for Integral Partners Funding, LLC.

Otay Crossings Commerce Park EIR (2016 - 2019). Project Manager/Principal Investigator for a cultural resources program including testing, data recovery, and monitoring for a 311.5-acre project in the County of San Diego. Served as Project Manager/Principal Investigator for the cultural resources study that addressed 14 sites, including testing at the 10 sites that not been previously assessed. Work performed for Kearny PCCP Otay 311, LLC, with County of San Diego as the lead agency.

Jackson Street Recycled Water Pipeline Project (RPU - SWRCB Financial Application Water Recycling Funding Program) (2017 - 2017). Cultural Resources Task Lead/Principal Investigator for the proposed installation of pipelines to expand the City of Riverside's Recycled Water System. Managed completion of a records search and a Sacred Lands File search, tribal outreach, a review of historic maps and aerial photographs, an intensive field survey by a HELIX archaeologist and co-authored the draft and final reports. The study met the CEQA-Plus requirements of the State Water Resources Control Board for receiving State Revolving Funds. Work performed for Kennedy/Jenks Consultants, with the City of Riverside as the lead agency.

Heritage Bluffs II (2014 - 2015). Project Manager/Principal Investigator for a cultural resources survey of approximately 170 acres and testing program at two archaeological sites, for a proposed residential development in the City of San Diego. Worked with project applicant and Red Tail on project design that would avoid impacts to a site area with cultural features and cremated human remains. Much of the work was completed prior to coming to HELIX, between 2007 and 2014. Work performed for Project Design Consultants.

EVMWD Near Term Water Supply Program, On-call Professional Environmental Services (2016 - 2019). Cultural Resources Task Lead/Principal Investigator for an on-call services contract to provide environmental services for water supply projects. Work performed for Elsinore Valley Municipal Water District. Diamond Regional Lift Station and Pipeline Project (2016 - 2018). Cultural Resources Task Lead/Principal Investigator for a cultural resources survey of the proposed Diamond Regional Lift Station project in the City of Lake Elsinore, located at the confluence of the San Jacinto River at the eastern shoreline of Lake Elsinore. Oversaw background research, field survey, site record updates, Native American coordination, and report preparation. Coordinated with Pechanga Cultural Resources on Native American concerns and development of mitigation measures for the project. Work performed for Elsinore Valley Municipal Water District (EVMWD). Regional Agricultural Pipeline Conversion Project (2016 - 2018). Cultural Resources Task Lead for the cultural resources study and archaeological monitoring for the proposed Ag Pipeline Conversion project, a three-agency partnership between Elsinore Valley Municipal Water District (EVMWD), the City of Lake Elsinore, and the Riverside County Flood Control and Water Conservation District (RCFCWCD). In conjunction with the cultural resources study, met with Pechanga Cultural Resources staff several times to discuss Native American concerns and alternative project approaches, due to the presence of extremely sensitive cultural resources. Assisted EVMWD with AB 52 consultation. Worked closely with tribal cultural monitors from two Tribes during construction monitoring. Work performed EVMWD. Palomar Well Replacement Project (2018). Cultural Resources Task Lead/Principal Investigator for a cultural resources survey of a proposed well replacement site in the City of Wildomar. Oversaw background research and field survey; responsible for Native American coordination and report preparation. Work performed EVMWD.

City of Oceanside's Condition Assessment and Access Improvements (2017 - 2019). Cultural Resources Task Lead/Principal Investigator for cultural resource survey, testing/assessment, and monitoring for constraints study/sensitivity analysis, as well as preparation of a technical report in support of a Program EIR for major sewer improvements, including a new lift station, new force main, and replacement of several sections of two pipelines in the raw sewage collection system and one secondary-treated effluent pipeline (Gravity Line, Force Main, and Land Outfall pipelines). Assisted the City of Oceanside with tribal consultation, as well. Work performed as a subconsultant to Infrastructure Engineering Corporation, with the City of Oceanside Water Utilities Department as the lead agency.

City of Oceanside Pure Water Lower 1 Recycled Water Conveyance System (2020 -). Cultural Resources Task Lead/Principal Investigator for cultural resources monitoring during construction of a recycled water pipeline in the City of Oceanside. Overseeing mitigation monitoring program, including Worker Environmental Awareness Program (WEAP) training; responsible for Native American outreach/coordination, coordination with construction management staff and construction crews, and general project management for the cultural resources task. Work was performed as a subconsultant to Infrastructure Engineering Corporation, with the City of Oceanside as the lead agency.

Vista Flume - Historic Documentation (2016 - 2017). Project Manager for the Historic American Engineering Record-level documentation of the Vista Irrigation District Main Water Conveyance System (Vista Flume). Constructed between 1925 and 1927, the Vista Irrigation District bench flumes, tunnels, and siphon segments qualify for listing on the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). As the District's main water conduit for over 85 years, the structures have been indispensable

in the area's development. In addition, the flumes and siphon are considered to be eligible for their unique design and method of construction. Work performed for the Vista Irrigation District.

Lilac Hills Ranch (2014 - 2017). Project Manager/Principal Investigator of a cultural resources survey and testing program for an approximately 608-acre mixed-use development in the Valley Center area. Oversaw background research, field survey, testing, recording of archaeological sites and historic structures, and report preparation. Responsible for development of the research design and data recovery program, preparation of the preservation plan, and Native American outreach and coordination. The project also included recording historic structures, development of a research design and data recovery program for a significant archaeological site, and coordination with the Native American community and the client to develop a preservation plan for a significant cultural resource. The project changed over time, so additional survey areas were included, and a variety of off-site improvement alternatives were addressed. Work performed for Accretive Investments, Inc. with County of San Diego as the lead agency.

Peacock Hill Cultural Resources (2014 - 2017). Project Manager/Principal Investigator of a cultural resources study update for a residential development in Lakeside. Oversaw updated research, fieldwork, lab work, analysis by forensic anthropologists, report preparation, and Native American coordination. In the course of outreach and coordination with the Native American (Kumeyaay) community, possible human remains were identified, prompting additional fieldwork, as well as coordination with the Native American community and forensic anthropologists. Work performed for Peacock Hill, Inc.

Vista Ridge Apartment Project (2014 - 2015). Project Manager/Principal Investigator for a cultural resources survey and a testing program at the previously recorded site CA-SDI-5345 to assess the significance of cultural resources within the project area and determine the significance of potential impacts. Given the amount of past disturbance and the paucity of cultural material, CA-SDI-5345 was determined not to be a significant archaeological resource under CEQA. Worked closely with the San Luis Rey Band and the Pechanga Band to address cultural concerns regarding the project area. Work performed for FF Realty, LLC, with the City of Vista as the lead agency.

Mission Cove Data Recovery (2014 - 2015). Project Manager/Principal Investigator for a cultural resources data recovery program at a significant archaeological site with cultural significance to the Luiseño people in the City of Oceanside. Prior to the data recovery program, worked with the client and the San Luis Rey Band of Mission Indians to redesign the project (an affordable housing/mixed-use development) to avoid impacts to cultural resources to the extent feasible. Oversaw background research, excavation and related fieldwork, cataloging and analysis, coordination of ancillary studies (e.g. radiocarbon analysis and shell analysis), Native American coordination, and report preparation. Analysis and report preparation are currently underway. The data recovery program was conducted to mitigate impacts that could not be avoided through project design. Work performed for National Community Renaissance.

Mission Cove Monitoring (2014 - 2018). Project Manager/Principal Investigator of an archaeological monitoring program for the 14.47 acre Mission Cove Affordable Housing mixed-use project area in the City of Oceanside. Oversaw field monitoring and documentation of finds. A significant archaeological and cultural resource is within the project, and there was a potential for unknown buried resources, given the alluvial setting. A hearth feature was recorded, as well as subsurface cultural deposits. Work performed for National Community Renaissance. Work performed for the City of Oceanside.

EDUCATION

Bachelor of Arts,
Anthropology with a
concentration in
Archaeology, University
of California, San Diego,
2013

Associate of Arts,
Anthropology, Mira
Costa Community
College, California, 2011

CERTIFICATIONS

North County Transit
District (NCTD) Roadway
Worker ID #C00901,
2015

HAZWOPER, 24 hours

PROFESSIONAL AFFILIATIONS

Transportation Museum
of San Diego and
Imperial Counties, Board
of Directors, Secretary
(2021-2022)

San Diego County
Archaeological Society,
Board of Directors,
Second Vice President
(2014-2015), First Vice
President (2015-2016)

Society for California
Archaeology, Member

NICOLE (NIKKI) FALVEY

Cultural Resources Project Manager



Ms. Falvey is a professional archaeologist and environmental planner. She has worked on approximately 100 cultural resource management projects and over 100 NEPA categorical exclusions in both local assistance and generalist capacities. Ms. Falvey has served in lab, field, and office capacities, completed record searches, co-authored technical reports, and authored NEPA process documents. Projects include commercial and residential developments, wind farms, utilities projects, and rail and road expansions. Project activities include

pedestrian surveys, test excavations, data recovery programs, and construction monitoring. I am familiar with the National Historic Preservation Act, the National Environmental Policy Act, and the California Environmental Quality Act.

Archaeological Survey for the Alpine 21 Project (2016 - 2017). Crew Chief for this proposed residential development in the City of Alpine. Conducted records search, supervised field survey crew, and co-authored technical report.

Archaeological Monitoring for the Paseo Del Norte Project (2016 - 2016). Staff Archaeologist for this commercial development in the City of Carlsbad. Conducted cultural resources construction monitoring.

Keystone Way Archaeological Survey Project (2016 - 2016). Staff Archaeologist for this proposed commercial development in the City of Vista. Conducted records search, conducted field survey, and co-authored technical report. The City of Vista was the lead agency.

Presidio Apartments Survey Project (2016 - 2016). Staff Archaeologist for this proposed multi-family residential development in the City of Oceanside. Conducted records search, conducted field survey, and co-authored technical report. The City of Oceanside was the lead agency.

City of Oceanside As-Needed Environmental Consulting Services (2013 - 2015). Staff Archaeologist for construction of a new facility at the Mission Basin Desalting Facility near the San Luis Rey River. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of Oceanside.

Vista Grande Archaeological Testing (2015 - 2016). Crew Chief for this proposed residential development in the City of Vista. Responsible for supervising test excavation of the archaeological site, including placing shovel test pits (STPs), plotting in STPs using a Trimble GPS, supervision of a three-person crew in excavating STPs, completing documentation, collecting surface artifacts, and coordination with a Native American monitor. Co-authored technical report. Work performed for the City of Vista.

City of Carlsbad Trails Master Plan Constraints Analysis (2015 - 2015). Staff Archaeologist for the constraints analysis for this proposed trails master plan in the City of Carlsbad. Assisted in research for the cultural resources portion of the constraints analysis, including locating previously recorded archaeological sites within the proposed trail system and determining their potential for effects. Work performed for the City of Carlsbad.

Pujols Shearwater Monitoring (2015 - 2016). Staff Archaeologist for this residential development in the City of Temecula, Riverside County. Conducted cultural resources construction monitoring, completed Department of Parks and Recreation forms, and co-authored technical report.

Ticonderoga Street and Morena Boulevard (2015 - 2015). Staff Archaeologist for this proposed residential development in the City of San Diego. Co-authored technical report.

Campo Creek Bridge Replacement Monitoring (2016 - 2017). Staff Archaeologist for this bridge replacement project in the community of Campo, San Diego County. Conducted cultural resources monitoring. Work performed for CalTrans.

Grandview Pointe IS/MND Survey and Structures Evaluation (2016 - 2018). Staff Archaeologist for this proposed residential development in the City of Oceanside. Conducted a historical evaluation and reconnaissance survey of the two historical residences on the property and co-authored technical report. Work performed for the City of Oceanside.

Archaeological Testing for the Buena Sanitation District Green Oak Sewer Replacement Project (2016 - 2017). Staff Archaeologist for this sewer main replacement project located in the City of Vista. Assisted in archaeological testing set-up and co-authored technical report. Work performed for the City of Vista.

Archaeological Survey for the Riverpark Project (2015 - 2017). Crew Chief for this mitigation bank project near the community of Nuevo in Riverside County. Supervised the survey of this 613-acre property with a three-person crew, including the recordation of encountered cultural resources.

964 Urania Avenue Archaeological Testing (2017 - 2018). Crew Chief for this proposed residential development in the City of Encinitas. Responsible for supervising a two-person crew in excavating shovel test pits (STPs), including the completing notes and the collecting and labeling artifacts. Completed Department of Parks and Recreation forms for archaeological sites and co-authored technical report. Work performed for the City of Encinitas.

Daisy Avenue Archaeological Testing Project (2014 - 2018). Staff Archaeologist for this proposed residential development in the City of Long Beach, Orange County. Participated in archaeological testing and co-authored technical report.

Villa Stora Archaeological Evaluation (2014 - 2015). Crew Chief for the cultural resources assessment of this property in the City of Oceanside. Responsible for supervising a four-person crew in archaeological testing by the excavation of shovel test pits (STPs).

Buena Creek Due Diligence Study (2015 - 2015). Staff Archaeologist for this proposed residential development near the City of Vista, San Diego County. Conducted records search, conducted field survey, and co-authored technical report. The County of San Diego is the lead agency.

312-400 South Euclid Historic Building Evaluation (2016 - 2017). Staff Archaeologist for this proposed residential development in the City of Anaheim, Orange County. Conducted records search, conducted site visit, including historical building assessment, and co-authored technical report. Work performed for KB Homes.

Lakeside 6 Survey (2016 - 2016). Staff Archaeologist for this proposed residential project in the community of Lakeside, San Diego County. Conducted cultural resources field survey, conducted historical property research, and co-authored technical report. Work performed for KB Homes.

San Elijo Joint Powers Authority Preliminary Design of Land Outfall Replacement and Permitting/CEQA Compliance Study (2015 - 2016). Staff Archaeologist for this CEQA compliance project in the City of Encinitas. Conducted records search, conducted cultural resources field survey, and co-authored technical report. Work performed for the San Elijo Joint Powers Authority.

Palmdale Water District - Palmdale Regional Groundwater Recharge and Recovery Preliminary Design EIR, EA, FONSI. Staff Archaeologist for this water district project Environmental Impact Report in the Palmdale Water District, Los Angeles County. Co-authored the cultural section (section 5.3) of the Environmental Impact Report. Work performed for the Palmdale Water District.

Otay Crossings Commerce Park EIR Survey (2016 - 2019). Staff Archaeologist for this proposed commercial project Environmental Impact Report in the Otay Mesa area of San Diego County. Conducted records search, conducted cultural resources field survey, completed Department of Parks and Recreation site record update, and co-authored technical report in accordance with Army Corps of Engineers standards. Work performed for the County of San Diego.

Orange County Sanitation District Newhope-Placentia Trunk Sewer Replacement, No. 2-72A (2015 - 2016). Staff Archaeologist for this trunk sewer replacement project in the Orange County Sanitation District, Orange County. Conducted historical research at the Fullerton Library, conducted a site visit to determine the presence of historically significant or potentially significant structures within the project area, and co-authored technical report. Work performed for the Orange County Sanitation District.

Mast Park Monitoring (2015 - 2016). Project Staff Archaeologist for this wetland habitat restoration project in the City of Santee. Conducted cultural resources construction monitoring, completed Department of Parks and Recreation site records, and co-authored technical report. Work performed for HELIX Construction Group and the City of Santee.

SDG&E Solar Sites Testing (2014 - 2017). Crew Chief for solar project near Pala Indian Reservation in the County of San Diego. Supervised a three-person crew in Phase II testing; responsible for test unit placement and excavation, artifact identification, notes. Also conducted cultural resources construction monitoring for Pala solar project and solar project in the community of Ramona, San Diego County. Co-authored report for Pala solar project. Work performed for Merkel & Associates, Inc.

USD Master Plan and Conditional Use Permit (2015 - 2016). Staff Archaeologist for the cultural resources technical report for USD's Master Plan EIR. Co-authored technical report. Work performed as a subconsultant to M.W. Steele Group, Inc., with University of San Diego as the lead agency.

Archaeological Monitoring for the Old Mission San Luis Rey Cemetery Expansion Project (2016 - 2017). Staff Archaeologist for a cultural resources monitoring program for the expansion of the cemetery at Old Mission

San Luis Rey, an area of sensitivity in terms of archaeological, historic, and Native American cultural resources. Conducted cultural resources construction monitoring. Work performed for Old Mission San Luis Rey, with the City of Oceanside as the lead agency.

Interstate 8 Water Main Crossing at Viewside Lane Environmental and Cultural Resources Services (2015 - 2016). Staff Archaeologist for proposed water main crossing in the community of Alpine, San Diego County. Conducted records search, conducted cultural resources field survey, and co-authored technical report. Work performed for the Padre Dam Municipal Water District.

Green Oak Villas Greenhouse Gas and Cultural Resources Testing (2016 - 2016). Staff Archaeologist for proposed residential development in the City of Vista. Conducted records search, conducted cultural resources field survey, acted as co-crew chief for Phase II testing, and co-authored technical report. Work performed for Providence Capital Group, Inc. with the City of Vista as the lead agency.

Archaeological Testing for the F11 Development (2015 - 2017). Staff Archaeologist for a proposed mixed-use commercial and residential tower in downtown San Diego. Participated in Phase II archaeological testing and laboratory work, including cleaning, sorting, labeling, and researching historic artifacts. Work performed for the Richman Group of Companies with the City of San Diego as the lead agency.

San Ysidro Community Plan Update (2016 - 2016). Staff Archaeologist for a Program EIR (PEIR) addressing a proposed update to the San Ysidro Community Plan that covers approximately 1,800 acres near the international border with Mexico. Co-authored PEIR Section 4.7 Historical Resources. Work performed for the City of San Diego.

Pottery Canyon Mitigation Monitoring (2014 - 2016). Staff Archaeologist for a cultural resources monitoring program in conjunction with contaminated soils remediation program at a significant historic archaeological site in Pottery Canyon Park in the City of San Diego. Responsible for monitoring of contaminated soils capping, collection and cataloging of artifacts outside the capped area, and co-authoring of a monitoring report. Work performed for the City of San Diego.

Archaeological Monitoring for 28th Street between Island Avenue and Clay Avenue (2014 - 2018). Staff Archaeologist for undergrounding utilities project in the Sherman Heights neighborhood of the City of San Diego. Conducted field, laboratory, and office work including: cultural resources construction monitoring; cleaning, sorting, labeling, cataloging, and researching of artifacts; completing Department of Parks and Recreation site records; and co-authoring technical report. Work performed for the City of San Diego.

Surveys for the Nestor Creek Channel Maintenance - Permitting and MMP Individual Assessments (2015-2016). Staff Archaeologist for creek channel maintenance program assessment in the City of San Diego. Conducted cultural resources field surveys and co-authored IHA. Work performed for the City of San Diego.

Survey for the Smythe Channel Maintenance - Permitting and MMP Individual Assessments (2015-2016). Staff Archaeologist for channel maintenance project in the City of San Diego. Conducted records search, conducted cultural resources field survey, and co-authored IHA. Work performed for the City of San Diego.

Archaeological Survey for the 12 Oaks Winery Resort and Golf Community (2015 - 2018). Staff Archaeologist for a cultural resources survey of approximately 650 acres for a proposed project in the County of

Riverside. Participated in cultural resources field survey, completed Department of Parks and Recreation site records, and co-authored technical report. Work performed for Standard Portfolio Temecula, LLC.

Previous Experience

California Department of Transportation (Caltrans) Associate Environmental Planner (Archaeology) PQS Co-Principal Investigator 2020-Present.

Interstate 5 (I-5) North Coast Corridor Project. Archaeologist responsible for coordinating construction monitoring for the construction phase of the I-5 expansion from San Elijo Lagoon north to Jefferson Street in San Diego County.

State Route 163 Bridge Rail. Environmental Planner for this project proposing to upgrade the bridge rails of four bridges spanning the SR-163 in the Cabrillo Historic District in the City of San Diego.

Tennessee Department of Transportation, Environmental Studies Specialist, Advanced, 2019-2020

SR-266 Road Widening D-List Categorical Exclusion. Author for this Federal Highway Administration-approved NEPA document in Rutherford County, Tennessee. Completed the Section 4(f) De Minimis process for multiple recreation areas and authored the report based upon archaeology, historical preservation, ecology, hazardous materials, air and noise, Native American coordination, and multimodal transportation studies.

SR-13 Road Realignment D-List Categorical Exclusion. Author for this Federal Highway Administration-approved NEPA document in Perry County, Tennessee. Authored the report based upon archaeology, historical preservation, ecology, hazardous materials, air and noise, Native American coordination, and multimodal transportation studies.

Coachella Valley Pole Replacements. Staff archaeologist for electrical pole replacement for the County of Riverside. Conducted record search.

Juan Street Pothole Investigation. Staff archaeologist for storm drain project in the City of San Diego, Assisted in report preparation.

Southern California Edison Pole Surveys. Staff archaeologist for electrical pole replacement for the Counties of Riverside, Mono, and Inyo. Conducted record searched, pedestrian surveys and assisted in report preparation; responsible for artifact identification and field notes.

Sunset Cliffs Archaeological Monitoring. Staff archaeologist for sewer pipeline in the City of San Diego. Conducted cultural resource monitoring; responsible for artifact identification, monitoring notes, and assisting in report preparation.

Verizon Rose Creek Data Recovery. Staff archaeologist for cell phone tower installation in the City of San Diego. Participated in Phase I data recovery; responsible for excavation of shovel test pits, field notes.

Mission Cove Archaeological Data Recovery (2014 - 2015). Project Staff archaeologist for residential development in the City of Oceanside. Participated in Phase II data recovery; responsible for excavation of shovel test units, field notes.

San Diego Fish and Game Wetland Rehab Survey. Staff archaeologist for wetland rehabilitation for the County of San Diego in the unincorporated community of Jamul. Conducted a pedestrian survey; responsible for artifact identification.

El Toro Recycled Water Monitoring. Staff archaeologist for recycled water pipeline in the City of El Toro. Conducted cultural resource monitoring; responsible for artifact identification, monitoring notes.

Newland Sierra. Staff archaeologist for commercial development in the City of Escondido. Conducted laboratory analysis; responsible for artifact labeling, analysis, cataloging.

North County Transit District San Onofre Archaeological Monitoring and Testing. Staff archaeologist for the expansion of railroad tracks on Marine Corps Base Camp Pendleton. Conducted cultural resource monitoring, test excavations, laboratory analysis; responsible for artifact identification, monitoring notes, artifact labeling.

Ortega Highway Interchange Monitoring. Staff archaeologist for highway improvements in the City of San Juan Capistrano. Conducted cultural resource monitoring; responsible for artifact identification, monitoring notes.

Poseidon Desalination Plant Monitoring. Staff archaeologist for water pipeline in the City of Carlsbad. Conducted cultural resource monitoring, laboratory analysis; responsible for artifact identification, monitoring notes, artifact analysis, cataloging.

Rincon Point. Staff archaeologist for residential development in the County of Santa Barbara. Assisted in laboratory analysis; responsible for artifact identification and labeling.

Smoking Tree Survey. Staff archaeologist for the installation of wind turbines in the City of Palm Springs. Conducted pedestrian survey; responsible for artifact identification, field notes.

Yokohl Ranch. Staff archaeologist for residential development in the County of Tulare. Conducted laboratory analysis; responsible for artifact analysis, cataloging, soil flotation, wet screening.

Cuyamaca Rancho School Camp Monitoring. Archaeological intern for landscaping in Cuyamaca Rancho State Park in the County of San Diego. Conducted cultural resource monitoring; responsible for artifact identification, monitoring notes.

Silver Strand State Beach Monitoring. Archaeological intern for underground utilities in Silver Strand State Beach in the City of San Diego. Conducted cultural resource monitoring; responsible for artifact identification, monitoring notes.

Selected Publications

"Wisdom in the Waste: Obsidian Studies and Late Prehistoric Social Systems" Presentation for the San Diego County Archaeological Society, 2013

Appendix B

Records Search
(Confidential, bound separately)

Appendix C

Native American Outreach
(Confidential, bound separately)